N·S·D·C
National
Skill Development
Corporation

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

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This report was prepared in August 2013

1 Executive Summary

National Skill Development Corporation (NSDC) had mandated KPMG Advisory Services Pvt Ltd to undertake a District-level Skill Gap Study of the state of Himachal Pradesh, involving various Departments of the Government of Himachal Pradesh, and Industry Bodies, as key stakeholders. The study focused on identifying district-wise incremental skilling requirements in Himachal Pradesh during the period 2012-22, for the potential growth sectors in the state. A roadmap for skill development initiatives in the state is proposed, with recommendations for key stakeholders. Extensive district level primary interactions including discussions with industries, vocational training providers and Government officers, were conducted. Focused group discussions were organized to understand youth aspirations towards employment. Global and Indian best practices in skill training have also been studied.

The demographic and social profile of Himachal presents a unique human resource opportunity for economic growth through manpower skilling. As per KPMG estimates, Himachal has a significant demographic dividend in the near term, with a rising working age population. Between 2012 and 2017, an additional 6.4 lakh[1] are expected to enter the working age group population followed by another 5.90 lakh during 2017-22[2] (these are Gross numbers, without netting off retirees). Considering the historical trends in labour participation rates of Himachal Pradesh, the state would witness a gross addition of 3.37 lakh and 3.10 lakh people to labour force (i.e. portion of the working age population willing to seek employment and work) during 2012-17 and 2017-22 periods respectively. Accommodating for retirement from the existing pool of labour force, Himachal is expected to register a net addition of 1.21 lakh to the labour force during 2012-17, and another 1.23 lakhs during 2017-22.

Period	Demand for Human Resource due to new jobs created (Lakhs)	Gross Addition to Working Age Population-Supply (Lakhs)	Gross Addition to Labour Force – Supply (Lakhs)	Net Addition to Labour Force-Supply (Lakhs)	Gap between Demand & Net Supply (Lakhs)
2012-17	5.76	6.41	3.37	1.21	4.55
2017-22	6.38	5.90	3.10	1.23	5.15

Manpower supply has regional variations along social and gender dimensions in Himachal Pradesh. District-wise incremental supply estimates indicate significant regional concentration in the leading five districts of Kangra, Mandi, Shimla, Solan and Sirmaur accounting for more than half of the total supply. Tribal regions like Lahaul and Spiti, areas of Chamba and Kinnaur have to be given special focus, considering the seasonal work-related migration, stemming from socio-economic backwardness and lack of sustainable local livelihood/employment opportunities in these areas.

Keeping in view the current position of the state, along with possible economic growth that could be facilitated in various sectors through favorable policies, an estimate of the additional increase in incremental manpower requirement during XII plan (2012-17) and XIII plan (2017-22) periods, would be over 5.7 lacs and 6.3 lacs respectively. In XII plan period, the targets of job opportunities to be created per annum could be set at around one lakhs on an annualized basis.

Incremental human resource requirements in the state have significant geographical and sectoral variations. Priority sectors from a manpower development perspective include Tourism, Communication, Construction, BFSI, Healthcare and

[1] *KPMG Analysis*
[2] *KPMG Analysis*

Pharmaceuticals. Priority districts from a manpower development perspective include Hamirpur, Mandi, Solan, Sirmaur and Una

District	Incremental Manpower Requirement 2012-17	Incremental Manpower Requirement 2017-22	Focus Sectors
Bilaspur	45,806	51,781	Construction and Construction based materials, Healthcare, Transportation and Logistics, Communication and BFSI
Chamba	43,248	48,610	Construction, Healthcare, Tourism, Communication and BFSI
Hamirpur	73,767	83,249	Construction, Communication, BFSI
Kangra	33,954	34,603	Fabrication of Metal products, Transportation and Logistics, Communication, Tourism, BFSI, Horticulture
Kinnaur	14,290	16,343	Apple Farming, Tourism, HydelPower, Construction
Kullu	37,368	41,434	Tourism, Construction, Banking and Financial Services, Horticulture
Lahaul & Spiti	3930	4399	Tourism, Hydel power, Construction
Mandi	93,236	104,687	Construction, Healthcare, BFSI, Communication
Shimla	88,512	98,693	Tourism, Healthcare, Construction, Communication and Banking
Sirmaur	22,572	25,482	Construction, Pharmaceuticals, Banking, Healthcare
Solan	56,732	58,817	Pharmaceuticals, Chemical and Chemical based products, Textiles, Manufacturing of Engineering products, Construction, Transportation and Retail
Una	61,129	68,876	Construction, Food Processing, Transport and logistics, Hospitality

An overview of the current enrollment status across levels of education helps provide an estimate of emerging capacity gaps over the next decade or so. With current primary enrollments in Himachal Pradesh standing at 80 thousand, and middle school at 93 thousand, the enrolment trend at the primary level has gone down over the last decade. This is on an account of Outward migration over last ten years.

Enrollments in Himachal across Education Levels[3]

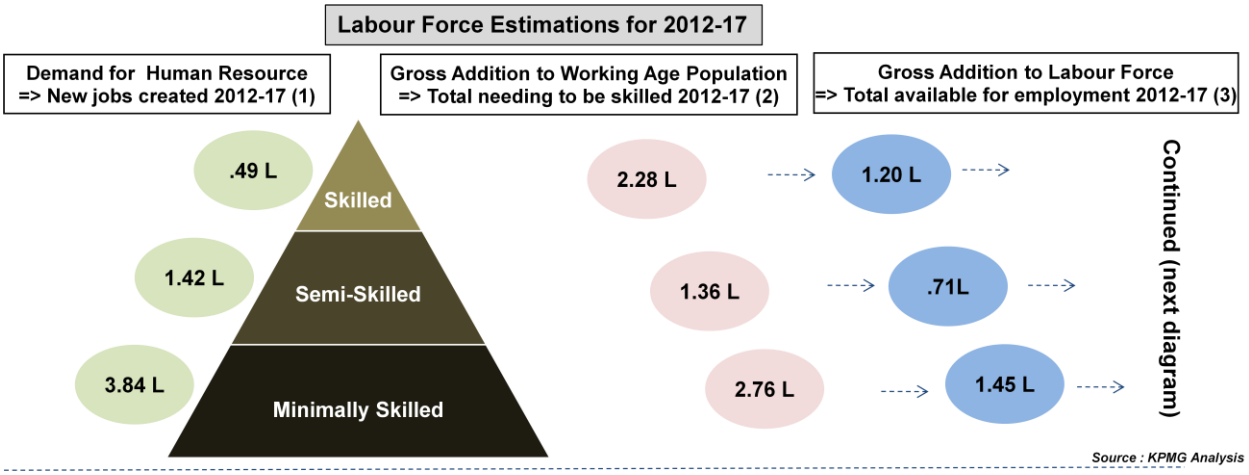
Level	Enrolments
Primary	0.80 lacs
Middle	0.93 lacs
Higher / Senior Secondary schools	1.1 lacs
Higher Education	0.51 lacs

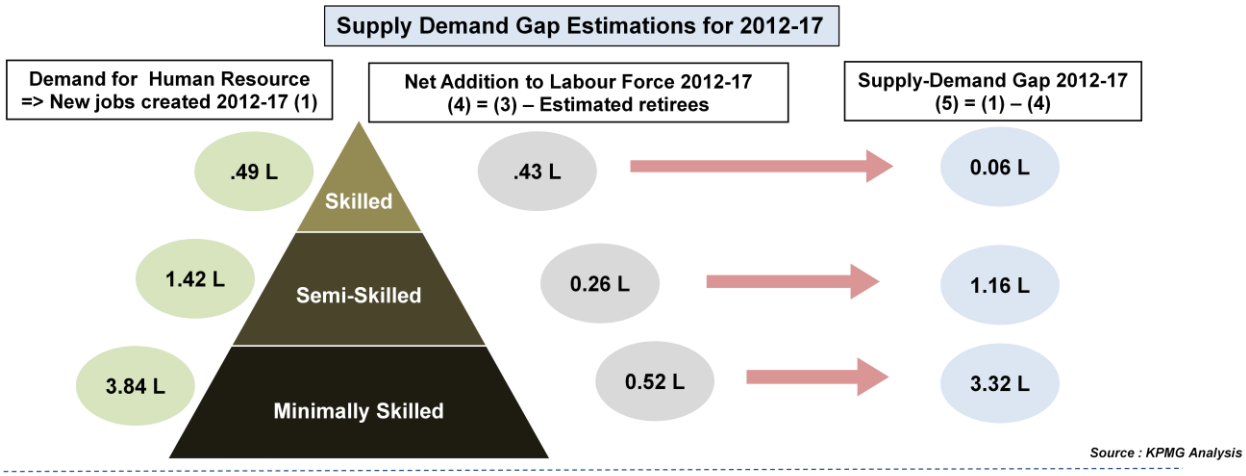
[3] *KPMG Analysis*

Vocational education has a key role to play in the educational system of Himachal Pradesh. While dropout rates are witnessed after school education across the state, resulting in low enrollments in higher education, districts like Solan, Chamba and Kinnaur have considerably high dropouts even at the school level. Interventions in vocational education to bridge the gaps in the educational system (within the schooling stage itself) and provide seamless options for students to pursue vocational education would be crucial in developing a holistic approach to address the skilling needs of the state. A comparison of vocational education capacities in the state would show that density of vocational infrastructure measured as number of seats available for 1000 people is high in the districts of Lahaul and Spiti, Hamirpur, Solan and Kullu. Level of private participation is low in all the upper Himachal districts. Capacity expansion in vocational education and augmentation of private participation is needed through region specific initiatives considering the current level of variations among the districts.

Assessment of existing training infrastructure in comparison to human resource demand over XII Plan period indicates significant capacity expansion requirement for semi-skilled category through vocational education. Demand-Supply gap estimates indicates a need to improve participation rates in semi-skilled categories along with providing vocational skills to high skilled labour force as well, considering the high level of employment opportunities in semi skilled category within the state. Further, employability of highly skilled graduates is an issue owing to misalignment of courses with industry needs and poor quality of institutes. Issue of low employability of graduates has to be addressed through suitable up-skilling considering local industrial requirements in order to ensure availability of industry ready manpower.

Himachal Pradesh Human Resource Supply-Demand Gap Estimations for 2012-17

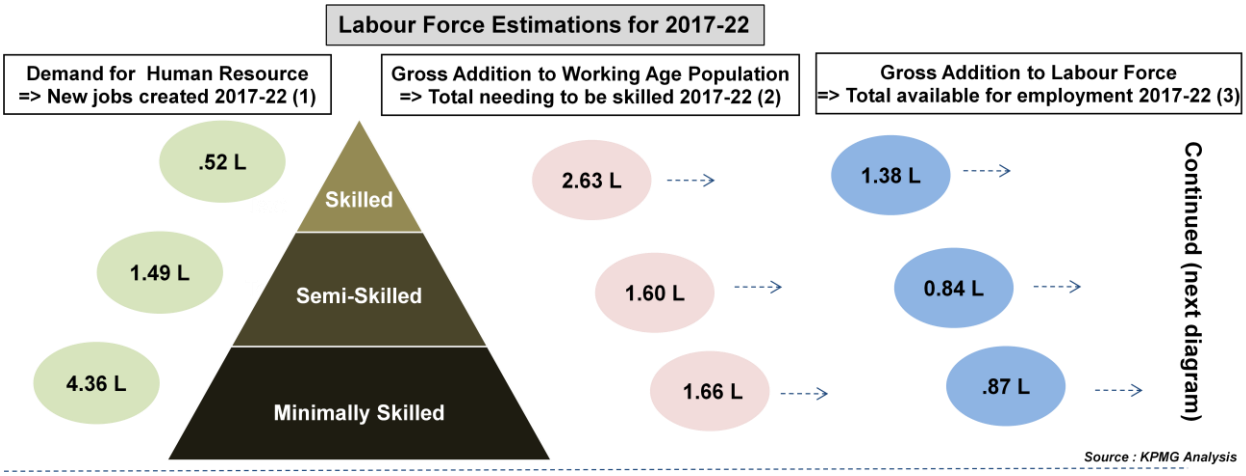


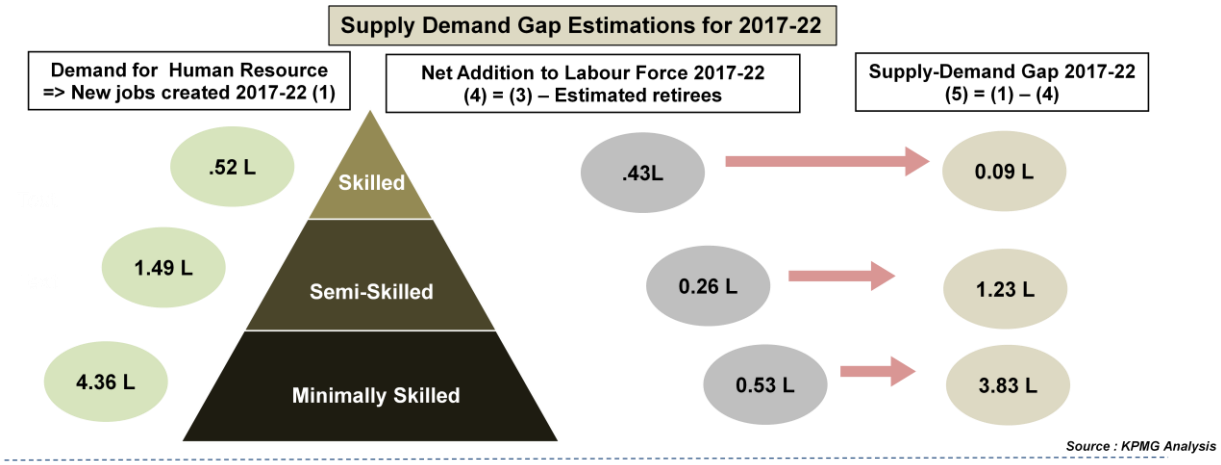


4. **Net Addition to Labour Force**: Gross Addition to Labour Force minus retirees – i.e. net new labour force available to meet new human resource demand arising from sectoral growth

5. **Supply of Human Resource:** Difference between Demand for Human Resource (1) and Net Addition to Labour Force (4)

Himachal Pradesh Human Resource Supply-Demand Gap Estimations for 2017-22





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District level variations in Demand-Supply gap indicate the need for geography specific initiatives to address the skilling issues. Skill Category wise Demand-Supply gap estimations for the districts of Himachal Pradesh are presented in the table below.

District Wise Supply- Demand Gap in Himachal Pradesh (2012-22)								
	2012-17				2017-22			
Region	**Skilled**	**Semi Skilled**	**Minimally skilled**	**Total**	**Skilled**	**Semi Skilled**	**Minimally skilled**	**Total**
Himachal	**43,476**	**26,005**	**52,513**	**121,994**	**43,942**	**26,284**	**53,077**	**123,304**
Bilaspur	1548	2093	3161	6802	1564	2116	3195	6875
Chamba	1169	931	7295	9395	1182	941	7373	9496
Hamirpur	4339	3095	939	8373	4385	3128	950	8463
Kangra	7656	3693	12661	24010	7738	3732	12797	24268
Kinnaur	104	348	1496	1949	105	352	1512	1970
Kullu	1522	3043	4261	8826	1538	3075	4307	8920
Lahaul and Spiti	13	224	623	860	13	226	630	869
Mandi	5130	2249	11140	18519	5185	2274	11259	18718
Shimla	9969	2652	2471	15093	10076	2681	2498	15255
Sirmaur	1922	2275	5011	9208	1942	2300	5064	9307
Solan	7008	3173	558	10739	7084	3207	564	10855
Una	3074	2205	2942	8221	3107	2229	2973	8309

*(Indicates excess supply)

Youth aspiration study indicates a clear mismatch between student aspiration and job opportunities available in the state. Sectors such as Textile and Apparel, Transportation and Logistics and Construction need to work on building a positive image, and providing the right working environment/perks, to attract talent.

Interactions with industry in the state have revealed that challenges are often related to quality of the workforce, rather than quantity. Most of the industry personnel opined that quality issues in the state are two-fold - technical knowledge and soft skills/behavioral aspects - with prospective employees lacking in either, or both of them. Manufacturing industries are facing serious issues to employ appropriate manpower, as most skilled graduates prefer to work in services sector than in manufacturing.

Recommendations for stakeholders (Government, NSDC/SSC, Industry and Training Institutes) are aimed at developing a comprehensive approach for the skill development activities in Himachal Pradesh.

Key recommendations for the Government include:

- Building systematic mechanisms to identify and assist potential school dropouts transition into vocational programs
- Setting up of Anchor Institutes in more focus Industries and broadening their scope
- Focus on Enhancing Skill Training Capacities in Districts With Low Penetration of Vocational Education
- Technology enabled faculty development model
- Effective monitoring of the current schemes applicable in the State

Key recommendations for the Industry/Industry Bodies include:

- Aligning CSR Goals (especially mandatory 2% CSR requirement) towards skilling, and play an active role in PPP initiatives. Share annual plan of recruitment with government and industry nodal agencies for skilling
- Support training institutes in development/delivery of programs
- Align recruitment policies to ensure hiring certified manpower from Govt/SSC accredited training institutions
- Invest in up-skilling of existing manpower and formulate formal HR policies and mechanisms to encourage employees to train in institutions
- Improve the work conditions to reduce attrition by providing a part of compensation in form of accommodation

Key recommendations for NSDC include:

- Facilitating development of Curriculum and Standards for Focus Sectors/ Vocational Courses in Schools
- Promoting Private Sector Participation in Focus Sectors & Supply Clusters
- Quality standardization through Sector skill councils

Key recommendations for Training Institutes include:

- Focus on high growth/ aspirational sectors where student acquisition is easier –Construction, Communication, BFSI and Tourism
- Create capacities in districts with lower penetration of training infrastructure – Chamba, Shimla, Sirmaur, Kangra and Mandi. Districts where low penetration of training infra is coupled with high industry growth, are high potential for future growth of skilling
- Explore scheme-based training potential to address the skilling needs of under privileged/BPL population - key schemes with high training potential are SGSY, Construction and Agriculture)
- Emphasize offering accredited programs (SSC certifications) to ensure industry acceptance for certifications
- Leverage existing infrastructure to build optimal delivery models (ITI premises, GIDC space where offered, industrial space during lean production hours etc)
- Build industry linkages in areas of development and delivery of training programs- placements, curriculum formulation, apprenticeships, faculty training
- Engage credible local networks (SHGs, NGOs, student groups such as UDISHA groups) for student acquisition

District wise skill gap details and further detailed recommendations, are provided in the full report. We suggest that the recommendations of the study should be treated in totality by all the stakeholders, to realize the intended objective of a robust skill development ecosystem in Himachal Pradesh.

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 Himachal Pradesh from a socio-economic and human capital perspective and state level recommendation on skill development in Himachal Pradesh
- **Part III** consists of detailed analysis of all districts of Himachal Pradesh 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 Himachal Pradesh and its various departments for their contribution towards the successful completion of the study. Our special thanks to Shri K. Sanjay Murthi, Shri Sandeep Bhatnagar and Shri A.K. Ahuja 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 Himachal Pradesh.

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 Himachal Pradesh, 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 Himachal Pradesh.

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, dropout 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 Himachal Pradesh 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 Himachal Pradesh 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	• Estimated district wise/sector wise investment during 2012-22 in a district from sector wise projected investment estimated based on analysis of
	  • Investment targets from state industries & Commerce department
	  • 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.
		HPSIDC and nodal bodies/players in identified priority sectors covering SEZs, Industrial clusters including
		• Automobile manufacturing
		• Food Processing
		• Sugar
		• Pharmaceuticals
		• Cold Storage

MSMEs(Medium-Small Scale Enterprises)	• Estimated sector wise MSME growth potential in the district from analysis of
	  • 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
	  • EM-II data
	  • Qualitative inputs from MSME units from identified priority clusters
		• HPSIDC, District Industries officer, Promoters of MSME units

Tertiary Sector		
Sub Sectors	**Factors considered for estimation of district wise incremental manpower during 2012-22**	**Key stakeholders**

IT-ITES	• Estimated district wise IT-ITES output(IT-ITES Exports/Domestic) growth during 2012-22 based on analysis of
	  • Output growth targets from Department of IT
	  • Historic achievement of growth targets,
	  • Interaction with IT-ITES industry bodies and key IT Players in Himachal Pradesh
	• Estimated Manpower intensity in IT-ITES industry based
	  • Inputs from IT-ITES industry bodies
	  • Historic trends in output linked employment generation potential in IT-ITES Industry
		• Department of Information Technology
		• IT-ITES Industry bodies

Tourism	• Estimated growth in number of tourist visits to major tourist destinations in the district during 2012-22 based on analysis of
	  • 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
		• Department of Tourism, Government of Himachal Pradesh

Hospitality	• District wise estimated growth in number of hotel rooms/restaurants during 2012-22, based on analysis of
	  • 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
		• Hotel and Restaurant Associations

Healthcare	• District wise estimated growth of healthcare institutions during 2012-22, estimated based on analysis	• Department of healthcare along with nodal agencies for • Primary healthcare

	• 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)	• Secondary healthcare • Tertiary healthcare • Private healthcare institutions in key districts.
Education	• 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)	• Department of School Education • Department of Secondary Education • Department of Higher Education • Department of Industrial Training and Vocational Education • Department of Technical Education
Logistics	• Projected contribution from logistics sector to the district economy based on analysis of • 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 • Current employment patterns in logistics industry • Inputs from key logistics players in Himachal Pradesh	
Transportation	• 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	• Department of Transportation • Transportation Companies

Retail	• District wise estimated growth in organized/un-organized retail sector
	  • Historic sub sector GDDP growth trends
	  • Penetration of organized retail
	  • Key growth drivers like per capita income trends, spending patterns
	• Employment generation potential estimates
		• Major retail players in Himachal Pradesh
		• Regional players

Banking Sector	• Estimated district wise growth in number of bank branches during 2012-22 based on analysis of
	  • Financial inclusion targets
	  • Historic growth trends in deposits/loans
	• Manpower requirements in banking outlets	

Financial Services	• Estimated growth in Non Banking Financial Companies (NBFC) in the district
	  • 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	• Based on analysis of district level crop pattern, irrigation pattern and extent of mechanization training potential in agriculture has been estimated	• Department of Agriculture, • District Agricultural Officers, Agricultural promotion councils in major agro clusters of Himachal Pradesh

Agriculture Allied Activities	• District wise/category wise estimated growth in Agri-Allied output by 2022 based on analysis of
	  • Growth targets from Nodal Agencies for key Allied activities in Himachal Pradesh
	  • Historic growth trends, funding allocation from nodal agencies
	• Category wise employment potential in Agri-Allied activities
		• Nodal Agencies for Individual Allied Sectors
		  • Horticultural
		  • Sericulture Department
		  • Fisheries Department

Other key focus sectors of Himachal Pradesh		
Sub Sectors	**Factors considered for estimation of district wise incremental manpower during 2012-22**	**Key Stakeholders**
Hydel Power	• Estimated district wise/sector wise investment during 2012-22 in a district from projected investment estimated based on analysis of • Investment targets from state power department • Achievability of targets from interaction with nodal bodies like HP Directorate of Energy, historical trends • Estimated sector wise manpower intensity from sector wise/category wise manpower intensity for investments estimated based on historical trends for investment to employment ratio (IEM data) and inputs from industry bodies.	• Directorate of Energy, HP power corporation Ltd. (HPPCL), HPSEB, HIMURJ, Yamuna Projects • Key players in Hydel power generation, transmission and distribution
Apple Farming	• District wise estimated size of net cultivated area in the district by 2022 based on the analysis of • Growth targets from the department of Horticulture • Achievability of targets from analysis of historic growth trends, proposed irrigation projects and interactions with District Horticultural officer (Workers per hectare cultivable land)	• Department of Horticulture • District Horticulture officers, Horticulture produce marketing corporation of Himachal Pradesh and Himachal Apple growers association • Key players involved in Apple farming

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	332
FGDs across Himachal Pradesh	27 (15 ITI and Polytechnic students + 12 ITI and polytechnic teachers)

Number of Participating Students	1048 (335 face to face interviews + 713 Telephonic interviews)

State Government Officials: Department of Technical Education, Directorate of Economics and Statistics, Department of Industries & Commerce, Department of SC & BC, Department of Tribal Development, Department of Rural Development, I, Small Scale Industries Department, Department of Healthcare, Department of Transportation, Department of Toursim, Department of School Education, Department of Higher Education.

District Administration Officials: 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 Himachal Pradesh

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.

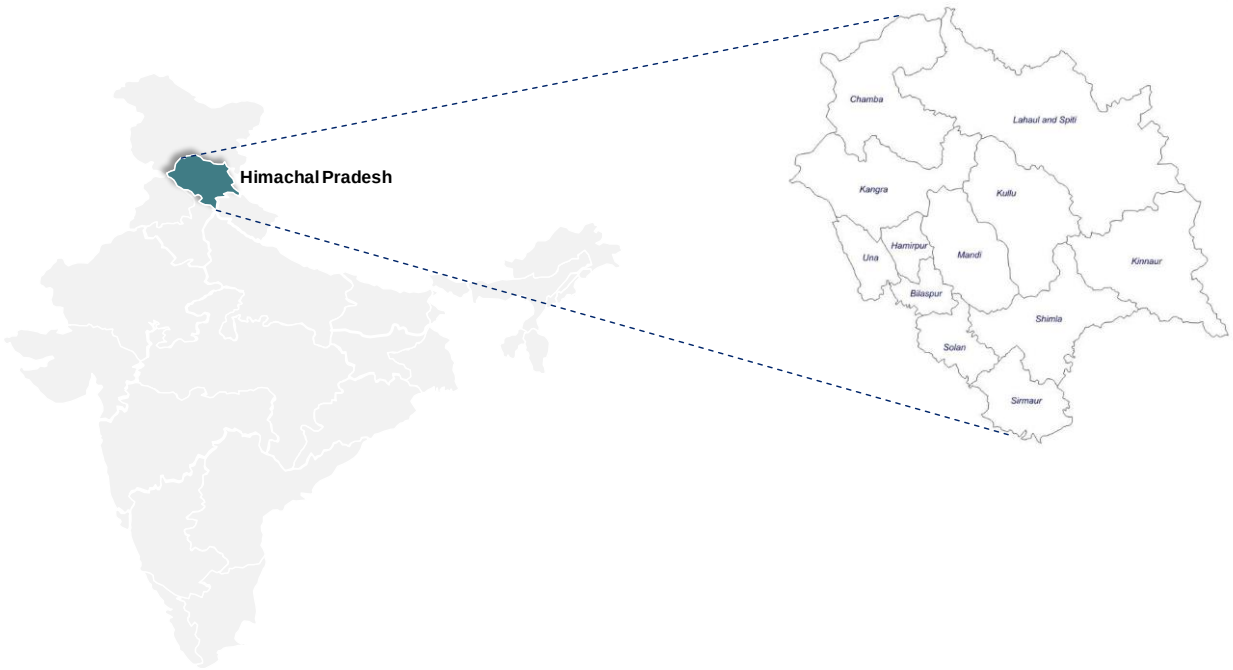
6 Skill Gap Assessment of Himachal Pradesh

6.1 Socioeconomic Profile

6.1.1 Administrative Profile

Himachal Pradesh is situated in the northern part of India and shares borders with Jammu & Kashmir, Punjab, Haryana, Uttarakhand and Tibet. The state has a geographical area of 55,673 sq.km[4] and Shimla is the capital city. While Hindi is the official language in the state, Pahari and Punjabi are also widely spoken. Administratively, Himachal Pradesh is distributed into 12 districts[5]. Geographical spread of the districts varies significantly within the state ranging from 13,835 sq.km[6] for Lahaul & Spiti to1, 118 sq.km[7] for Hamirpur.

Administrative Map of Himachal Pradesh[8]



6.1.2 Demographic Profile

Himachal Pradesh is a less populated state in India. As per Census 2011 estimates, state has a population of 68.56 lakhs[9] accounting for hardly around 0.6 percent of India population[10]. Decadal growth of population has reduced to 12.81 percent[11] during 2001-11 from 17.54 percent[12] during 1991-2001, which is in line with the drop of decadal growth rate across Indian states. Successful implementation of population control schemes is a key reason for the reduced decadal

[4] *Himachal Statistical handbook*
[5] *Himachal Statistical handbook*
[6] *Himachal Statistical handbook*
[7] *Himachal Statistical handbook*
[8] *Himachal Statistical handbook, KPMG Analysis*
[9] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[10] *Census 2011 Data, Government of India*
[11] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[12] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*

growth rate, along with improved literacy and socioeconomic scenarios. Study of population distribution along socio, regional, gender, education attainment and concentration dimensions would be crucial to understand the demographics in the state. Summary of key demographic indicators in Himachal Pradesh and comparison with national level indicators is presented in the table.

Demographic Comparison of Himachal Pradesh with India[13]

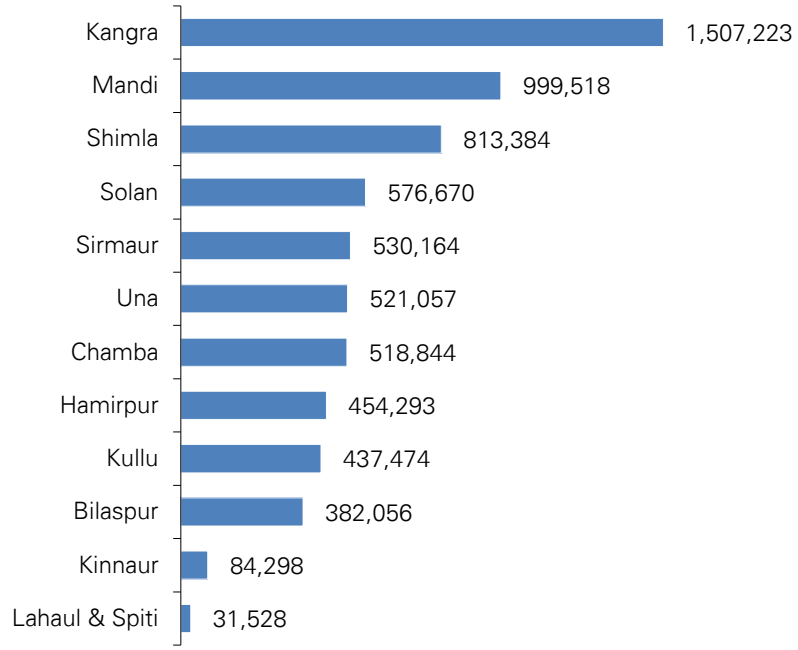
Indicator	Himachal Pradesh	India
Population(2011)	68,56,509	1,21,01,93,422
Gender Ratio- Females Per 1000 Males(2011)	974	940
Percentage of Youth population (15 – 39 years) (Population Projection Report, Census of India)	43.88%	42.88%
Population Density-Persons Per Sq.km(2011)	123	382
Level of Urbanization(2011)	10.04%	31.10%
Decadal Growth Rate(2001-11)	19.17%	17.64%
Decadal Growth Rate-Urban(2001-11)	15.6%	31.80%
Decadal Growth Rate-Rural(2001-11)	12.5%	12.18%
Percentage of SC Population(2001)	24.72%	16.20%
Percentage of ST Population	4.02%	8.20%
Literacy Rate(2011)	83.78%	74.04%
Male Literacy Rate(2011)	90.83%	82.14%
Female Literacy Rate(2011)	76.6%	65.46%
Urban Literacy Rate(2011)	91.39%	84.98%
Rural Literacy Rate(2011)	82.91%	68.91%
Number of Districts	12	640
Number of Talukas	69	5,924
Number of Towns	59	3,894
Number of Villages	20,690	6,40,867

Key Demographic Characteristics in Himachal Pradesh:

Regional Distribution: Over sixty eight lacs population in the state is unevenly distributed across the districts. Solan, Shimla, Mandi and Kangra districts account for more than half of the total state population. Industrial growth led migration and large geographical spread are the prime reasons for high human resource composition in these districts. On the other hand, Lahaul & Spiti and Kinnaur have significantly low population, of less than one lacs[14] in each district owing to the harsh living conditions and hilly topography prevailing in these districts.

Regional Distribution of Population in Himachal Pradesh (2011) [15]

[13] *Census 2011, 2001 statistics*
[14] *Census 2011 Data, Government of India*
[15] *Census 2011 Data, Government of India*

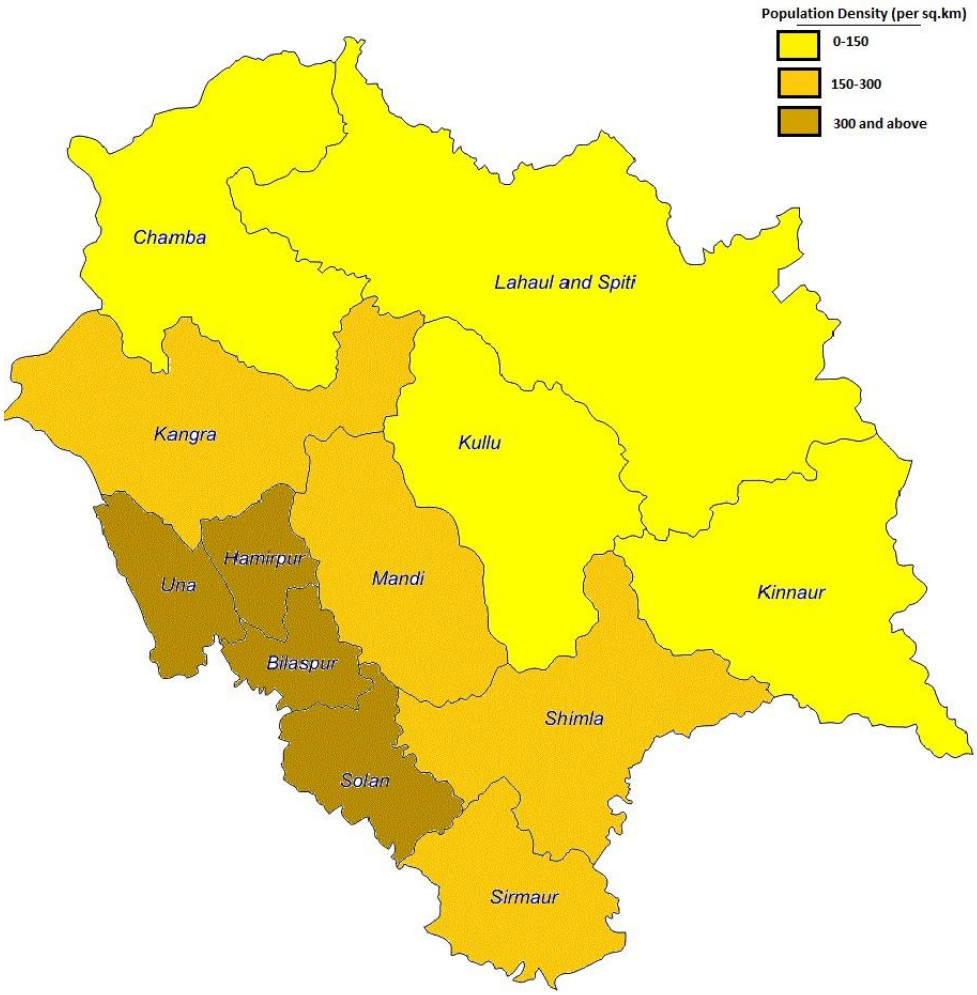


Population Intensity: Over sixty eight lacs population in Himachal Pradesh is distributed in the state at an average of 123 persons per sq.km[16]. Population density of the state is significantly lower than the national average of 382 persons per sq.km[17]. Lower human resource intensity in the state coupled with increasing employment opportunities across organized and unorganized sectors has played a crucial role in promoting inward migration of skilled workers predominantly from Uttar Pradesh, Bihar, Jharkhand and Nepal.

Further, the concentration of population has intra state variations with the districts of Hamirpur and Una having highest density on one hand and Lahaul & Spiti and Kinnaur having the lowest density on the other hand. While the state has less than national average population density, Hamirpur, the most densely populated district in the state, has higher density than the national average. Classification of districts based on distribution of population as per average population density as high intensity, medium intensity and low intensity regions would help in understanding the human resource intensity in these regions. High population intensity districts have evolved with gradual migration of workforce into these clusters from industrially less developed regions within the state as well as from outside the state.

Regional variations in population density among the districts of Himachal Pradesh[18]

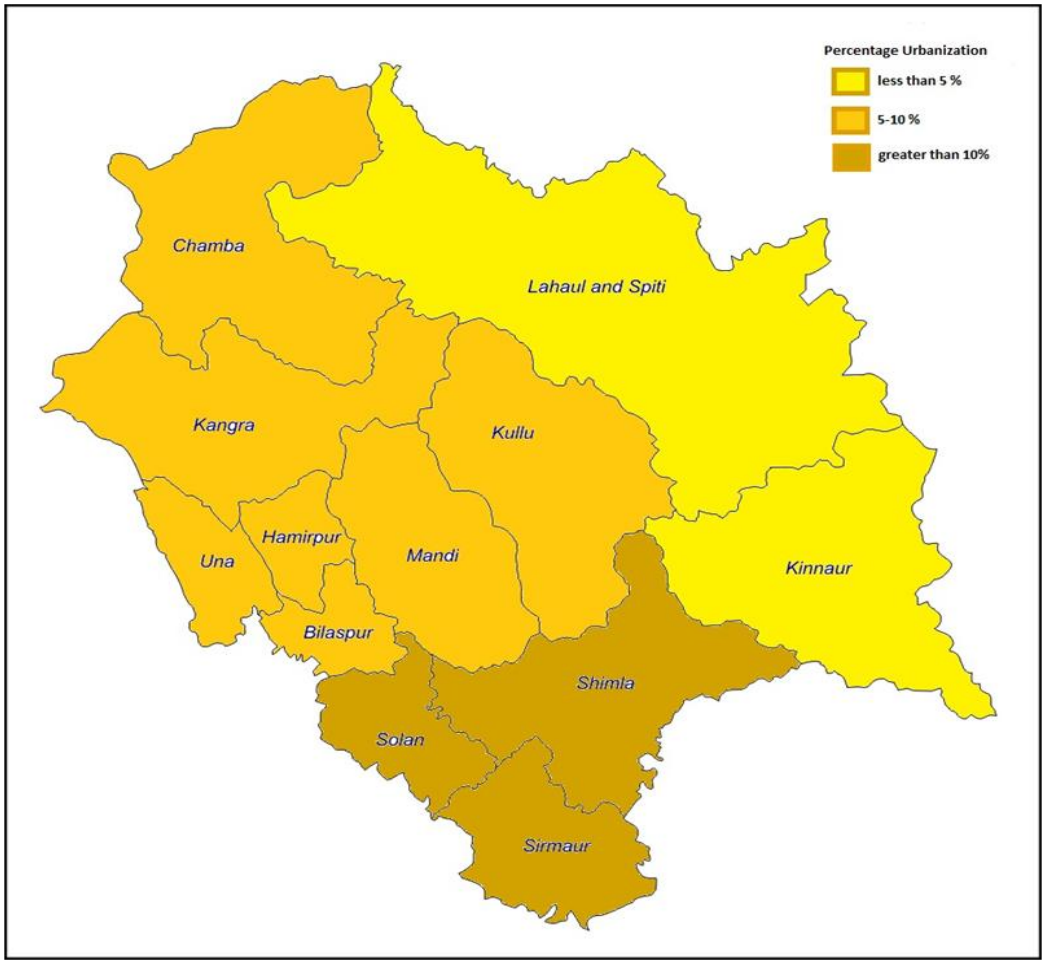
[16] *Census 2011 Data, Government of India*
[17] *Census 2011 Data, Government of India*
[18] *Census 2011 Data, Government of India*



Level of Urbanization: Human resource intensity in the region is closely related to level of urbanization. With about 90 percent of the state population living in rural areas, Himachal Pradesh is the least urbanized state in India. Level of urbanization in Himachal Pradesh stood at 10.04 percent[19] in 2011, in comparison to national average of 31.2 percent[20]. Urban population in the state has witnessed 15.64 percent growth during 2001-11 in comparison to 9.23 percent growth in rural population during the same period. The pattern of urbanization in the state is different from that prevailing in its neighboring states of Punjab and Haryana. The undulating topography of Himachal Pradesh prevents the development of big towns and makes the presence of smaller towns more conducive. Districts like Lahaul & Spiti (100 percent rural population) and Kinnaur (100 per cent[21] rural population) consist of only rural population while the other districts also account for a very high level of rural population reflecting low level of urbanization in Himachal Pradesh. However, according to 2011 census data available, Shimla has shown an improvement in the level of urbanization with 24.77 percent of population residing in the urban areas. Urban regions are usually associated with high employment intensity in commercial and services sectors and higher proportion of affluent population. Analysis of level of urbanization would assist in identifying focus regions for specific interventions in policy framework, considering the stark variations between urban and rural regions.

[19] *Census 2011 Data, Government of India*
[20] *Census 2011 Data, Government of India*
[21] *Census 2011 Data, Government of India*

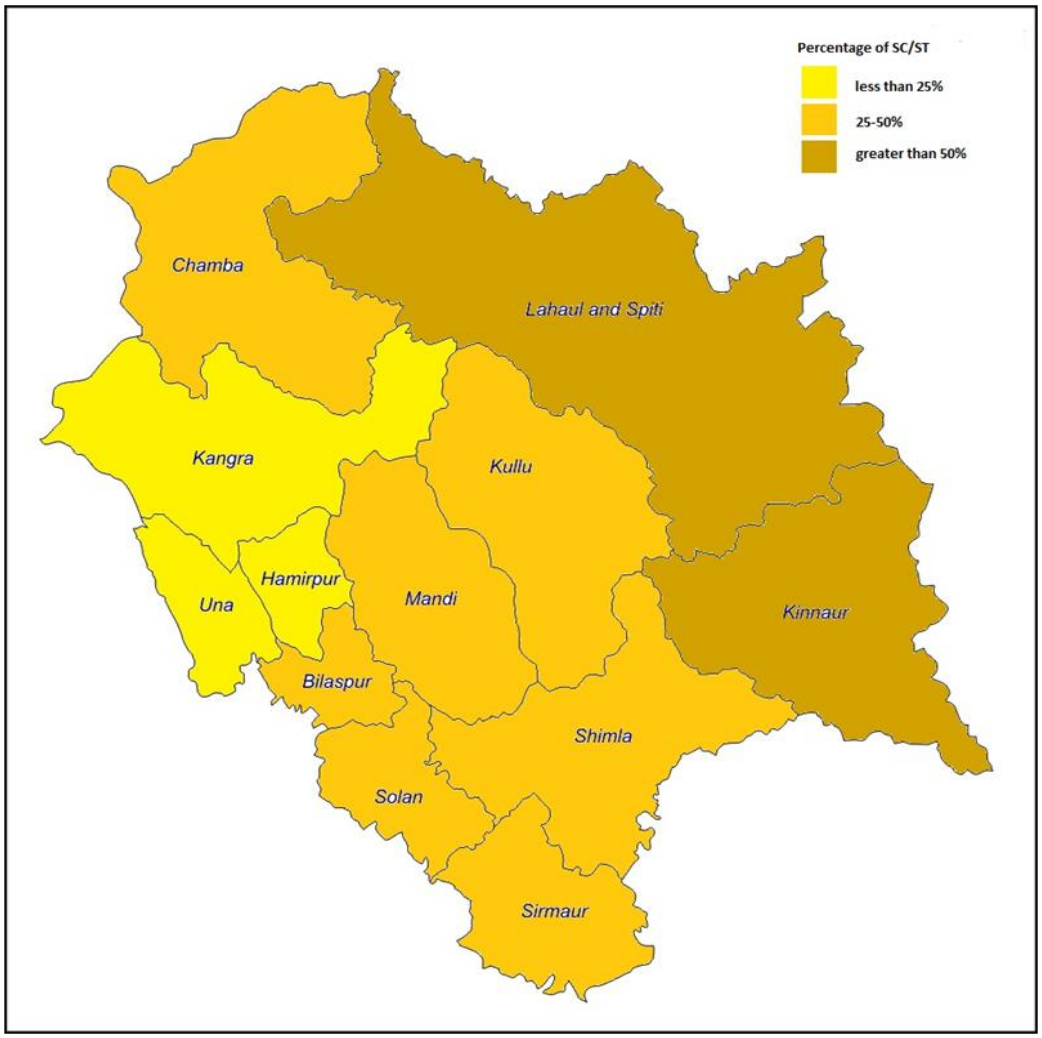
Regional variations in level of urbanization among the districts of Himachal Pradesh[22]



Proportion of backward communities: As the reserved categories population statistics based on 2011 Census are not available, 2001 statistics are analyzed to understand the historical characteristics in the population of marginalized communities in Himachal Pradesh. As per 2001 estimates, 28.74 percent[23] of total population comprised of backward classes. While Scheduled Tribes account for 4.02 percent[24], Scheduled Castes add 24.72 percent[25] to the total population. Considering the high proportion of SCs in the state population, adequate focus should be given for the upliftment of these communities targeting regions with high concentration of tribal. In terms of regional concentration, Sirmaur, Solan, Kullu, Mandi, Bilaspur have a high proportion of SCs in the overall district population. On expected lines, major share of SC population (93.4 percent)[26] in Himachal Pradesh lives in rural areas. The major scheduled tribes (ST) of Himachal Pradesh include the Kinners or Kinnaure, the Lahules, the Spitians, the Pangwalas, the Gaddis and the Gujjars. Analysis of regional distribution of SC/ST population would help understanding the occupational patterns and social relevance of these activities. Policy interventions for the welfare of these marginalized communities through skilling and empowerment have to address these concerns at large.

[22] *Census 2011 Data, Government of India*
[23] *Census 2001Data, Government of India*
[24] *Census 2001Data, Government of India*
[25] *Census 2001Data, Government of India*
[26] *Census 2001Data, Government of India*

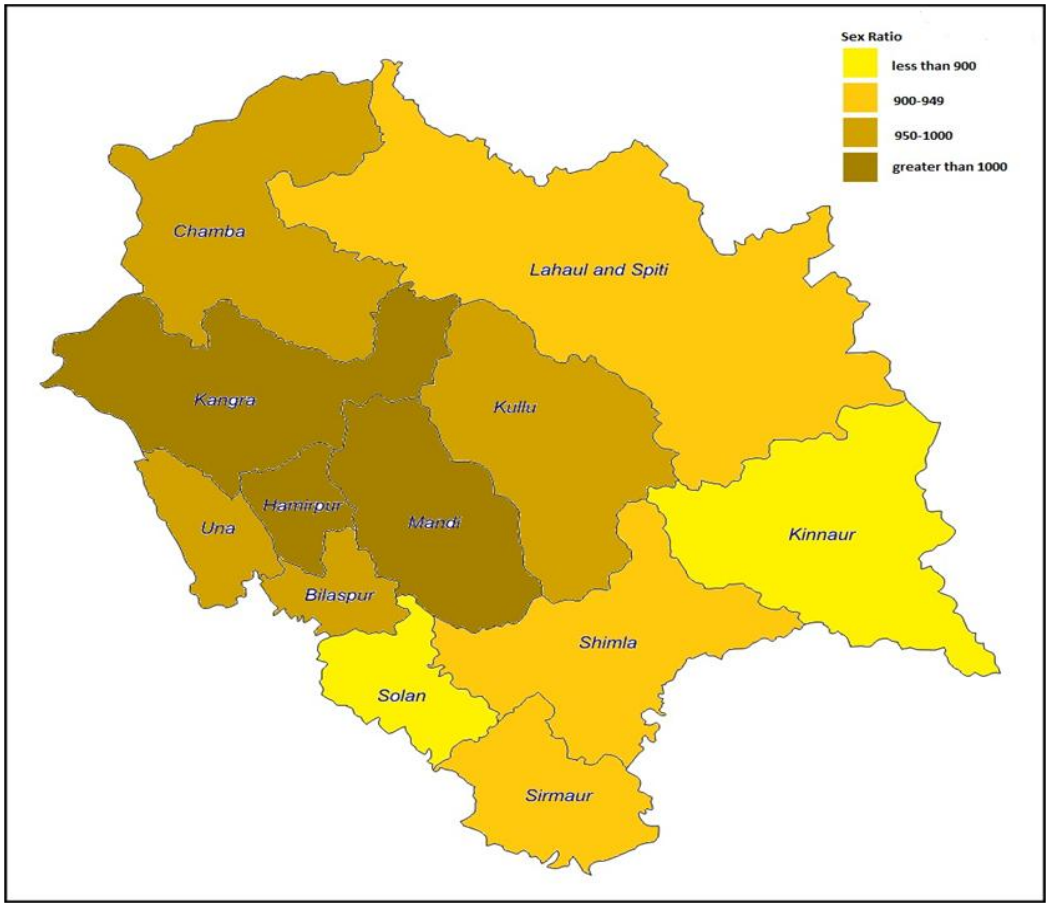
Regional variations in percentage of SC/ST among the districts of Himachal Pradesh[27]



Gender Composition: Gender is another important demographic parameter which has relevance to education and occupational characteristics of the population, considering the social compulsions in communities. Trends in the gender composition in Himachal Pradesh present a promising picture. The proportion of females in overall population has increased from 968 females per 1000 males[28] in 2001 to 974 females per 1000 males in 2011. The gender ratio in the state is skewed to a lesser degree than the national average (940 females per 1000 males). The State Government has reportedly launched a number of schemes aimed at alleviating the social and economic status of women in the society. Further, district of Kinnaur has the lowest gender ratio at 818 females per 1000 males. This is not due to obvious reasons of female feticide or patriarchal mindset but due to increased literacy rates among females, as a result of which women in Kinnaur are moving out to pursue higher education and settling outside. On the other hand, the male counterparts prefer to stay back to pursue the traditional horticulture business in the district. On the other end of spectrum are districts of Hamirpur, Kangra and Mandi which have more female population than males. Considering these gender variations in population is important for any inclusive framework. While districts with skewed gender composition need attention towards creating equity, districts with high female proportion would require women centric initiatives for education and employment generation.

[27] *Census 2011 Data, Government of India*
[28] *Census 2011 Data, Government of India*

Regional variations in Sex ratio among the districts of Himachal Pradesh[29]

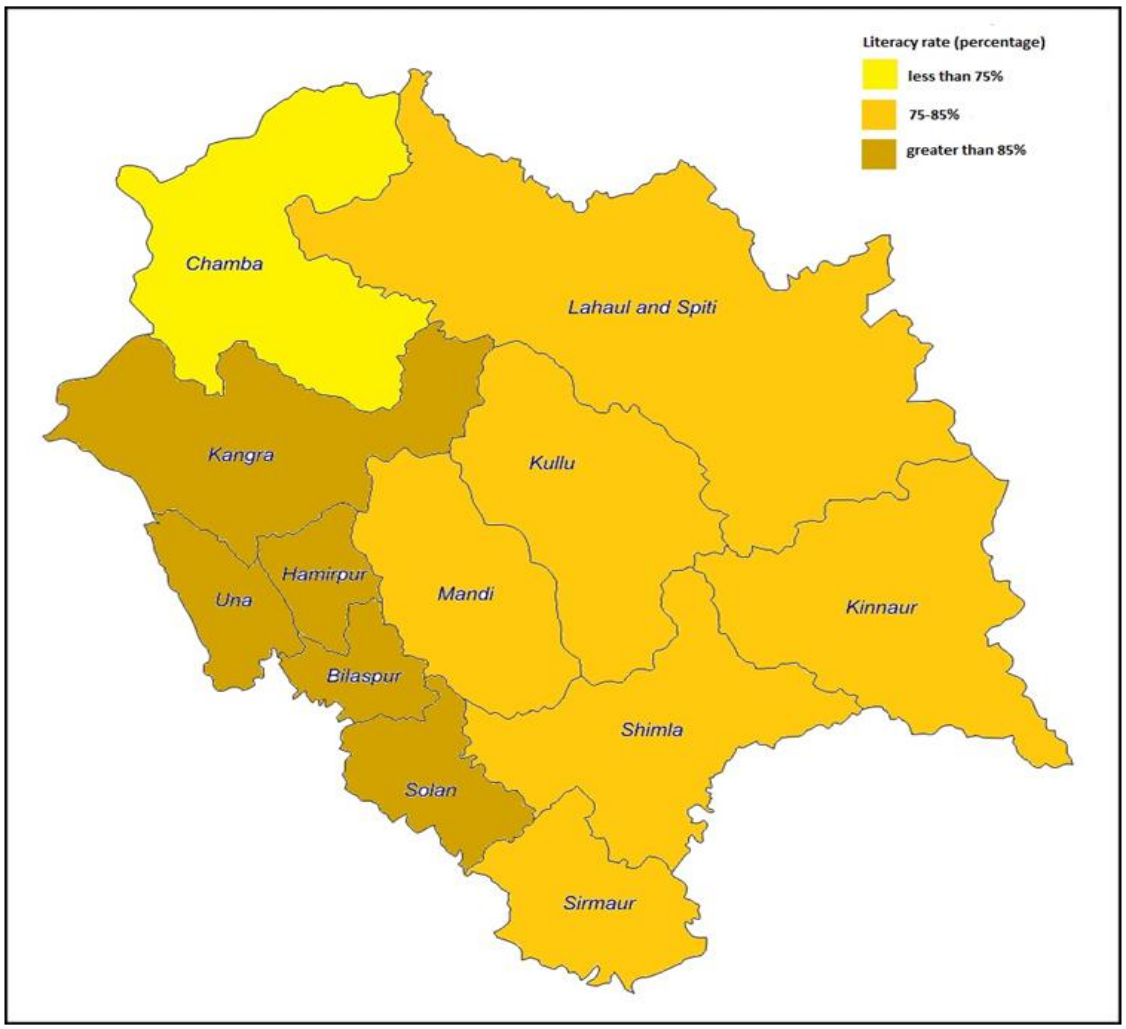


Education Attainment: Literacy rate is a good measure for the attainment of basic education in a region. Himachal Pradesh has shown tremendous strides in the field of literacy during the past decade. As per 2011 Census, Himachal Pradesh has registered a literacy rate of 83.78 percent[30] in comparison to national average of 74.02 percent[31]. During 2001-11 literacy rate has improved from 76.48 percent[32] to the current levels increasing the number of literates to 51, 04,506[33]. Growth in overall literacy of state is attributed to the increased means of transport, rising number of educational institutions and various literacy programs initiated by the government. Education attainment has to be analyzed through gender, regional and social dimensions to identify the focus areas improvement. Sarva Shiksha Abhiyaan, a program to ensure universalisation of elementary education, is being implemented in the state on a priority basis.

Literacy rate in Himachal Pradesh has significant regional variations with the districts of Hamirpur, Una, Kangra, Bilaspur and Solan on one side having high literacy rate of over 85 percent and Chamba having lower rates of less than 75 percent. District of Chamba has the lowest literacy rate of 73.19%. Literacy rate variations in districts may be attributed to level of urbanization with continuing disparities in urban-rural literacy rates over the years.

Regional variations in literacy rates among the districts of Himachal Pradesh[34]

[29] *Census 2011 Data, Government of India*
[30] *Census 2011 Data, Government of India*
[31] *Census 2011 Data, Government of India*
[32] *Census 2011 Data, Government of India*
[33] *Census 2011 Data, Government of India*
[34] *Census 2011 Data, Government of India*



Further, gender linked analysis of literacy rates presents the case of gender based disparities in the education attainment. Female literacy rate of Himachal Pradesh standing at 76.6 percent[35] is much better than the national average female literacy rate of 65.46 percent[36].There is a wide gap of 15.15 per cent in literacy rates of rural males and rural females due to socio economic reasons. Disparities in education attainment arising from region, gender and social dimensions have to be considered to develop a holistic growth map for the state in creating a knowledge economy.

Healthcare: Himachal Pradesh has performed on similar lines when compared to the national averages across key healthcare parameters- Crude Birth Rate (CBR), Crude Death Rate (CDR) and Infant Mortality Rate (IMR). There is a greater need to focus on primary health care to help the state in overcoming some critical challenges in producing a healthy workforce. Details of healthcare infrastructure would be covered in healthcare section. A comparative view of Himachal Pradesh with India in select health indicators is presented in the table[37].

Health Indicators-2010	Himachal Pradesh	India
Birth Rate	16.9	22.1
Death Rate	6.9	7.2

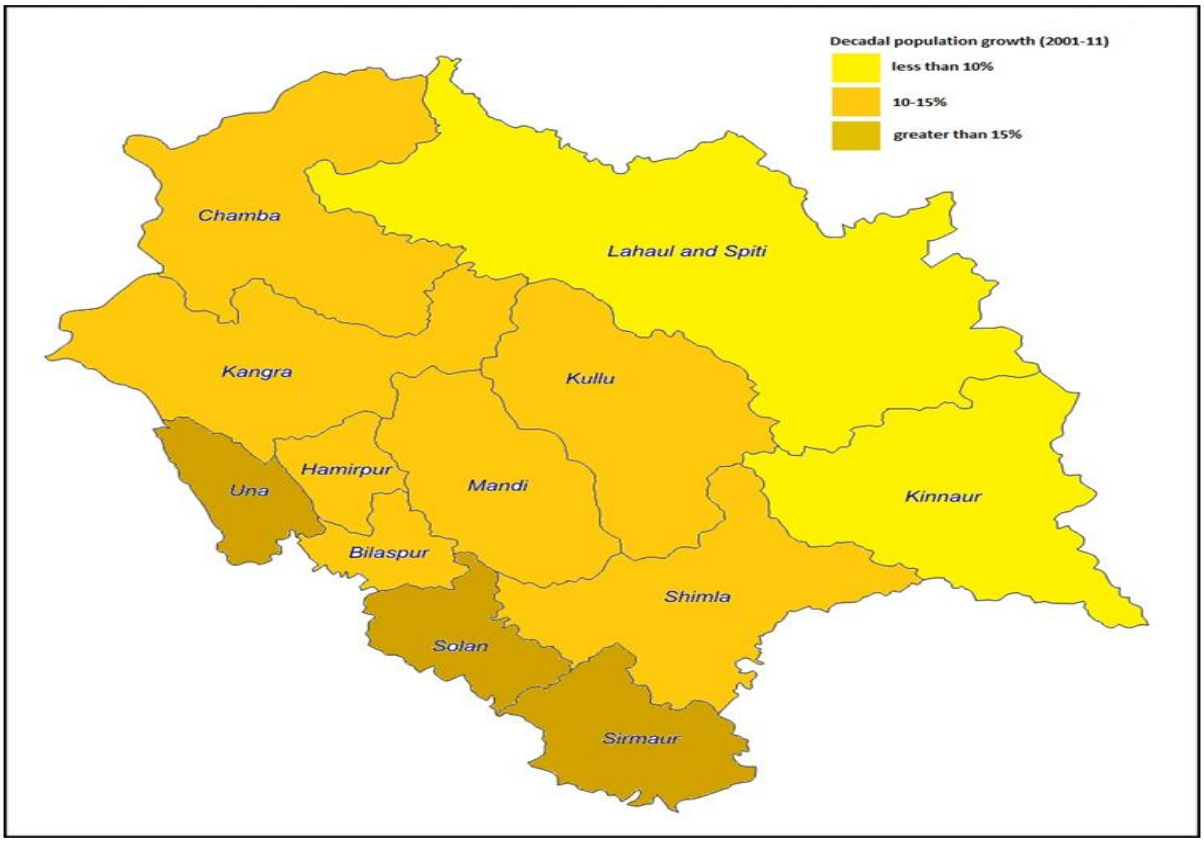
[35] *Census 2011 Data, Government of India*
[36] *Census 2011 Data, Government of India*
[37] *Himachal Statistical handbook*

Infant Mortality Rate(IMR)	40	47

The State Government has launched Himachal Health Vision 2020, to provide effective and efficient health services. At present, there is a network of 54 civil hospitals, 76 CHCs, 473 PHCs, 11 ESI dispensaries and 2,066 sub-centers in the state.[38]

Migration: Migration in Himachal Pradesh in both forms, that is, immigration and emigration is a common phenomenon. Migrants contribute to a large share in the population of the state. In case of Himachal Pradesh, there is a high volume of intra-district migration as compared to inter-district/ inter-state/ international migration. The key reasons for female migration are marriage and family circumstances. But, on the other hand, key reason for male migration is primarily work-based from one underdeveloped district like Lahaul & Spiti and Kinnaur to relatively more developed and industrialized districts like Solan, Una and Shimla. Classification of districts by the decadal population growth indicates that districts of Una, Sirmaur and Solan have witnessed high level of permanent migration, while Lahaul & Spiti and Kinnaur have seen significant outward displacement of population.

Regional variations in decadal population growth rates among the districts of Himachal Pradesh[39]



The upper districts of Himachal Pradesh like Kinnaur and Lahaul & Spiti witness reverse-migration. These districts are covered with snow for six months of the year during which they move to their alternative establishment in other districts like Kullu to escape the harsh weather. For the remaining six months, the local people engage themselves in the cultivation of apple and potatoes.

[38] *Himachal Economic survey 2012-13*
[39] *Census 2011 Data, Government of India*

6.1.3 State Economic Profile

Himachal Pradesh, with 0.6 percent of the country's population and 1.69 percent of the country's geographical area, contributes to only 0.76 percent[40] of the Gross Domestic Product of India. As per estimates, Gross State Domestic Product (GSDP) at current prices in 2011-12 has been estimated at INR 63, 812 crores [41] as against INR56, 355 crores [42] in 2010-11, registering a growth of 13.2 percent[43]. However, GSDP estimation at constant prices of base year which is a measure of real growth in the state output has grown at 7.4 percent[44] during the same period. A comparison of Himachal Pradesh with India on select economic parameters is shown in the table.

Economic Performance of Himachal Pradesh with India[45]

Indicator	Himachal Pradesh	India
GDP in INR Cr (At Current Prices-2011-12)	63, 812	83,53,495
Net Domestic Product in INR Cr (At Current Prices-2012)	51,360*	74,76,764
Per Capita Income in INR(At Current Prices-2011)	54,151	61,564
Population in BPL Category (2009-10)[46]	9.5%	29.8%
Primary Sector		
Total Cropped Area(thousand h.a, 2010-11)[47]	949 #	1,98,969
Forest Area(thousand h.a, 2010-11)[48]	1,103 #	70,006
Area Under Horticultural Land(h.a)	204.629 (2008-09)[49]	20,875
Total Livestock in 000s	52,26.4 [50]	5,29,698
Fish Production in 000 tonnes(2010-11)	7.381 [51]	8,150.807
Value of Mineral Production in INR Cr	13,701 (2010-11)	1,87,717(2009-10)
Secondary and Manufacturing Sector		
Number of Factories(2010-11)	4,230	2,11,660
Output Value in INR Cr(2010-11)	15,649	46,85,213
Industrial Employment in Lakhs (2010-11)	2.61[52]	287.10
Services and Tertiary Sector		
Number of offices of Commercial Banks(2012)	1,164[53]	1,01,261
Total Road Length in km	34,169	30,47,783

[40] *http://unidow.com/india%20home%20eng/statewise_gdp.html*
[41] *Himachal Economic survey 2012-13*
[42] *Himachal Economic survey 2012-13*
[43] *Himachal Economic survey 2012-13*
[44] *Himachal Economic survey 2012-13*
[45] *Himachal Economic survey 2012-13; Brief Facts of Himachal Pradesh 2011-12; Himachal Statistical handbook*
[46] *http://planningcommission.gov.in/news/press_pov1903.pdf*
[47] *http://eands.dacnet.nic.in/LUS-2010-11/S2.pdf*
[48] *http://eands.dacnet.nic.in/LUS-2010-11/S1.pdf*
[49] *http://www.msmedihimachal.nic.in/AnnualReport2011-12_A1b.pdf*
[50] *http://www.msmedihimachal.nic.in/AnnualReport2011-12_A1b.pdf*
[51] *http://himachal.nic.in/economics/REPORTS/brief_facts2013_A1b.pdf*
[52] *Department of Economics and Statistics*
[53] *http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/00STB071112FLS.pdf*

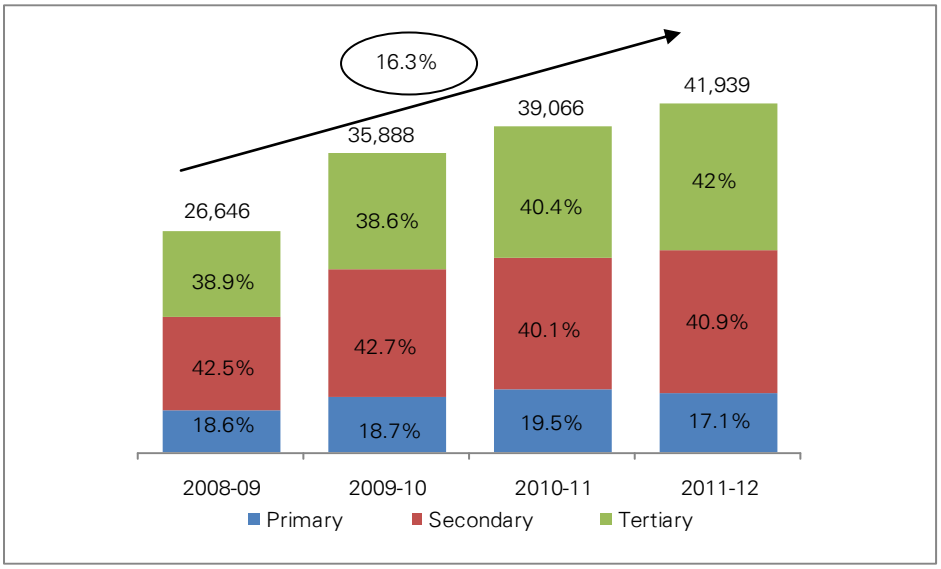
Total Railway Length(2011)	296[54]	64,460
Villages Served Per PHC(2012)	44	27
Villages Served Per CHC(2012)	272	133

**Conversion rate used: 1USD= INR48*

 # The figures related to area under forest are taken from latest "State of Forest Report, 2009" of the Forest Survey of India, Dehradun. The other categories of land use, net irrigated area, gross irrigated area, net sown area and area under crops as the case may be, are taken from latest Agricultural Census or are estimated based on latest available year data received from the states/ UTs respectively.

The share of primary, secondary and tertiary sectors has been reported at 17.1 percent, 40.9 percent and 42 percent respectively to the total GSDP in 2011-12 at current prices. Contribution of secondary sector comprising manufacturing, electricity, energy and construction is significant among the various Indian states, indicating the crucial role that the sector has played to the growth of the state. It is to be noted that the state has a significant presence of Hydro projects across the districts and hence is doing very well in power generation.

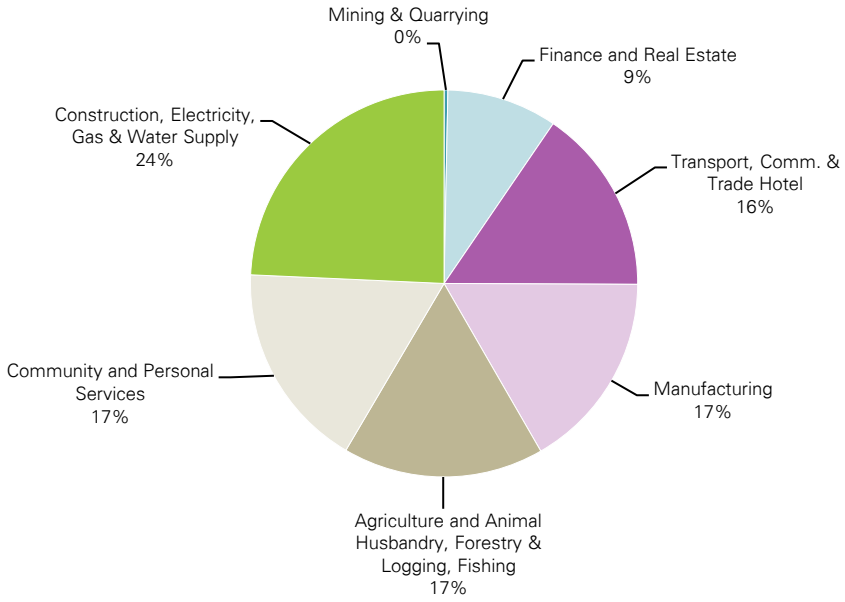
Himachal Pradesh Economic Performance (GSDP at Current Prices-INR Cr) [55]



Sectoral Analysis-GSDP: The growth of 13.2 percent[56] in GSDP from the year 2010-11 to 2011-12 for Himachal Pradesh is primarily attributed to agriculture and allied activities sector besides other sectors of the economy. Approximately, 13.69 percent of state income was derived from the agriculture sector alone in 2011-12. Apart from the primary sector, the secondary sector, which comprises of manufacturing, Construction and Electricity, Gas and Water Supply registered a growth of around 8 percent during 2011-12. This growth was even higher than the national growth of secondary sector. However, assessment of economic output of a subsector along with employment intensity would be critical to understand the growth of human capital in these economic activities.

Distribution of GSDP among key economic activities (2011-12) [57]

[54] *http://indianrailways.gov.in/railwayboard/uploads/directorate/stat_econ/yearbook10-11/Track_bridges.pdf*
[55] *Economic Survey of Himachal Pradesh 2012-13, 2011-12, 2010-11, 2009-10*
[56] *Economic Survey of Himachal Pradesh 2012-13*
[57] *Economic Survey of Himachal Pradesh 2012-13*



Tourism has been identified as one of the most important sectors of the economy of Himachal Pradesh. Known for its spectacular and panoramic landscapes, Himachal Pradesh- a traveler's paradise is blessed with lofty snow peaks, deep gorges, verdant valleys, thundering rivers, enchanting mountain lakes, flower carpeted meadows, ancient temples, and magnificent monasteries steeped in time. The tourism sector has been given high priority by the Government of Himachal Pradesh in the recent years. Compared to the national average growth rate of 12.5 percent, the number of tourists in Himachal Pradesh has grown at a CAGR of 14 percent[58] during 2006 – 2010.

Trade: Historically, trade driven by traditional comparative advantage, has been a key growth accelerator for economic expansion and national differentiation. As economies advance and diversify internally, trade helps to bring economies of scale, better market access and well integrated supply chain for various economic agents of any nation. Singapore and Dubai are good examples of nations which have fully leveraged their geography and made trade as the basis of its growth and development. To facilitate trade and provide facilities of warehousing, storage, custody and handling of cargo to the industrial units established in the state, a MOU has been signed between the State government and the container corporation of India for the establishment of Inland Container Depot at Baddi. This includes setting up of warehouses, administrative buildings, railway siding, installation of heavy machinery and equipment etc. The State government has transferred 86 bigha of Government land to CONCOR at a nominal lease of Rupee 1/acre per annum for 95 years[59]. CONCOR will be responsible for the storage/custody/cargo handling/custom clearances. This move is expected to give tremendous boost to the development and growth of Industrialization and exports from the region.

Favorable Policy Environment fostering Tourism Growth

Tourism in Himachal Pradesh has been recognized as one of the most important sectors of the economy, as it is being realized as major engine of growth for future. The state is endowed with all the basic resources necessary for thriving

[58] *Tourism in Himachal Pradesh and the way ahead – KPMG report*
[59] *Industries department, Government of Himachal Pradesh*

tourism activity like geographical and cultural diversity, clean peaceful and beautiful streams, sacred shrines, historic monuments and friendly and hospitable people.

Tourism Industry in Himachal Pradesh has been given very high priority and the government has developed appropriate infrastructure for its development which includes provision of public utility services, roads, communication network, airports, transport facilities and civic amenities etc .However, the current rank of 13 in terms of number of tourists visiting the state in 2010 indicates that there is further potential to showcase the state as an important tourist destination. During the year 2012-13, the Government of India has sanctioned the following schemes for development of tourism[60]:-

Sr. No.	Name of Tourist circuit/destination	Amount sanctioned by GOI (in lacs)	Amount released by GOI (in lacs)
1	Integrated development of tourist range as a Tourist circuit by way of providing wayside amenities in HP	797.44	637.95
2	Integrated development of tourism destination by way of creating parking facilities at major tourist places	461.27	369.01
3	Tourism development activities in Swarghat area under Mandi destination scheme	459.02	367.21
4	Tourism development activities in Sarkaghat area under Mandi destination scheme	464.71	371.77
5	Integrated development of Dhauladhar range wayside amenities in HP as a tourist circuit	797.44	637.95
6	Celebration of Masroor festival in district Kangra,2012	15	15
7	Celebration of Shivratri festival, district Mandi, 2013	5	5
8	Celebration of Kullu Dussehra, district Kullu,2012	5	5
9	Celebration of Minjar fair, district Chamba	5	5
10	CFA under CBSP and Hunar se rozgar tak scheme	243.92	195.13
11	Organization of mountain biking event,2012	10	10
12	Organization of paragliding event,2012	10	10
	Total	**3273.80**	**2629.02**

A large percentage of the Tourists come to Himachal Pradesh by road mostly, followed by, rail and air. Hence, the government is taking a number of initiatives to develop the infrastructure in the state, making it more attractive for the tourists. The Transport Department has a proposal for setting up of seven Ropeways in different location in the state under Public Private Partnership (PPP) mode, on Build, Operate & Transfer basis to make the state more tourist-friendly.

[60] Directorate of Tourism, Himachal Pradesh

With regards to publicity and promotion, the state has established Brand Himachal as an attractive tourist destination under the caption 'Unforgettable Himachal'. The State is also in the process of identifying land for development of an airport where the private sector has also been invited to invest in aviation.
Besides Adventure and Pilgrimage tourism, Himachal Pradesh tourism is also focusing on other areas like history related tourism, village tourism, cultural tourism and wildlife tourism. Himachal Pradesh tourism has also opened up numerous small tourism information centers all across the state, which assists tourists with Himachal travel, hotel booking, shopping, and transportation and also provide other important travel trips. These information centers also provide free Himachal Pradesh tourism guides, brochures, Himachal Pradesh maps, and travel booklets. The Himachal Pradesh Tourism also arranges sports activities like skiing, paragliding, river rafting, trekking, ice-skating and golf besides camping and tenting facilities in far off tribal areas.

Orchard tourism is also an area of focus in the districts of Shimla , Kinnaur , Kullu and parts of Mandi. Traditional farm houses are being converted into home stead's wherein the tourists could enjoy the beauty right from apple blossom to harvesting.

There are 2, 247 registered hotels/ guest houses in the state as on December 2012[61] with a bed capacity of 58,655. The number of restaurants in the state at the same time was around 515.

6.1.3.1 Investment Scenario

Himachal is recognized as an ideal destination for investment in Power and Tourism sector. The state has attracted investments in the pharmaceuticals, IT and engineering industries. With the increased liberalization of economy and consequent de licensing and notification of special package of incentives for Himachal Pradesh, the flow of investment in the state has increased manifold resulting in the setting up of new industries. There are about 494 medium and large scale industries, and around 38,592 small scale industries in the state (as on December 2012), accounting for a total investment of around INR16, 588.56 crores.[62] The state has been striving to accelerate the flow of investment into the industrial sector through the successive industrial policies and other investor friendly measures.

According to the data collected by the Union Ministry of Statistics and program Implementation, Himachal Pradesh was also adjudged as "Most Attractive Investment Destination State" in the country in the year 2012 for creating quality infrastructural facilities, best industrial investment friendly environment and extending all cooperation in the setting up of manufacturing units in industrial areas of Himachal. An investment of INR19, 099 crores[63] has been approved to be invested in the state by 5,775 industrial enterprises involving employment opportunities to 2.17 lakhs persons since 2008.

Following are the key industrial projects under planning:

Promoter	Project	Investment(USD million)	Location
Airport			
Airport authority of India	Expansion of runway	22.1	Shimla
Pharmaceutical			
Ankur drugs and Pharma Ltd.	Drug formulation project	43.5	Solan
Education			

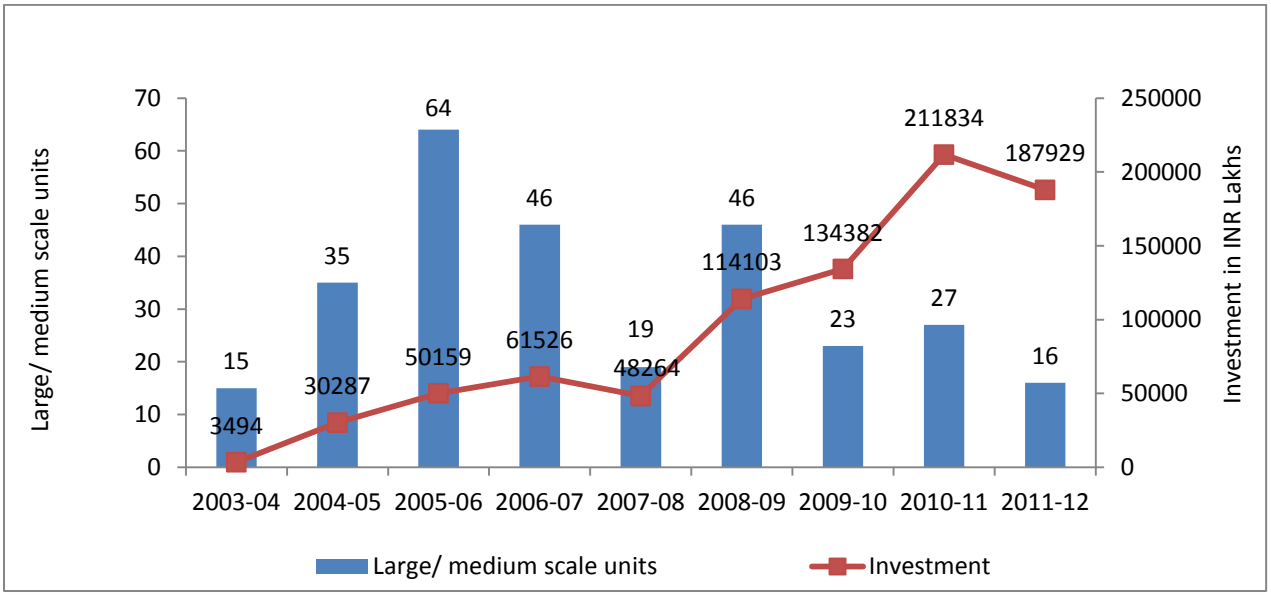
[61] *Directorate of Tourism , Himachal Pradesh*
[62] *Economic Survey of Himachal Pradesh 2012-13*
[63] *http://articles.economictimes.indiatimes.com/2012-12-15/news/35836649_1_state-award-capita-income-crore-and-employment*

Employees state insurance corporation	Medical College	126.6	Mandi
Cement			
Jaypee Associates Ltd.	Cement plant	434.8	Solan
Grasim Industries ltd.	Cement plant	217.4	Mandi
Coromandel Cements	Cement plant	195.7	Shimla
JK United cements	Cement plant	847.8	Chamba
SAIL	Limestone mining	56.5	Solan
Steel			
SAIL	Steel processing plant	21.7	Kangra
IT/ITeS	IT/ITeS SEZ	43.5	Shimla

Source: DIC/ India Brand equity foundation

According to the data collected by the Union Ministry of Statistics and Program Implementation, Himachal Pradesh was also adjudged as "Most Attractive Investment Destination State" in the country in the year 2012 for creating quality infrastructural facilities, best industrial investment friendly environment and extending all cooperation in setting up of industrial units in industrial areas of Himachal. An investment of INR19, 099 crores[64] has been approved to be invested in the state by 5,775 industrial enterprises involving employment opportunities to 2.17 lacs persons since 2008.

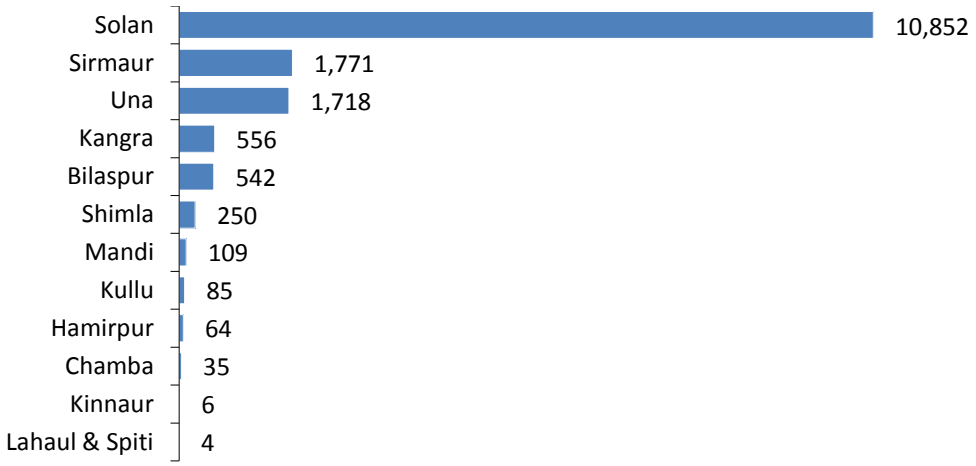
Investment Growth Trend in Himachal Pradesh[65]



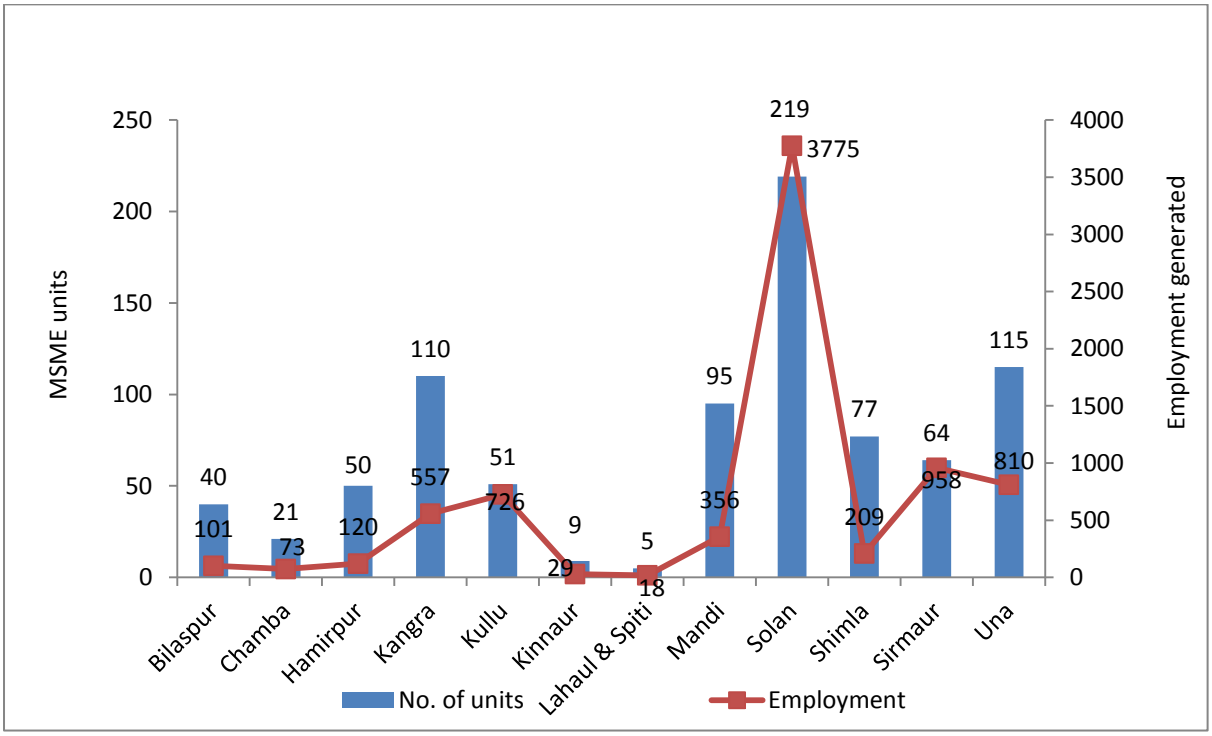
Analysis of regional distribution of investments in Himachal Pradesh indicates that on the basis of industrial units registered in the small, medium and large scale sector, the industrial development is concentrated around few districts of Kangra, Solan, Mandi, Shimla and Una while other regions including Kinnaur and Lahaul & Spiti remain backward in terms of industrial development.

Details of region wise small, medium and large scale investments in Himachal Pradesh till 2012 is presented in the chart.[66]

[65] *http://himachal.nic.in/industry/indstatus.htm*
[66] *http://himachal.nic.in/industry/indstatus.htm*



Due to a less number of large scale industries, ancillarisation is not a scaled up activity in the State. Ancillary Industries in the Mechanical sectors are services & repairing, electrical parts, spares, rubber parts, plastics components and parts for auto industries which are prominent in the state along with the allied services activities. However, significant regional variations are observed among the districts which are analyzed in respective district sections. Details of district wise MSME units set up in the year 2011-12, along with the employment generated is presented in the graph[67].



6.1.3.2 Focus Sectors for Growth in Himachal Pradesh

The future economic growth of Himachal Pradesh will depend on creating excellence in the key traditional industrial and services segments and emerging sectors. In this section we have tried to give a deeper understanding that reflects not just the statistical facts, but also the enablers, constraints and imperatives linked to each sector along with covering aspects of regional concentration of sectors leading to cluster development.

[67] *Annual Administration Report 2011-12, Government of Himachal Pradesh- Industries department*

Secondary Sector

1) Hydro Power:

Himachal Pradesh is a state which is endowed with a huge hydro power potential. The state has about 25 percent of the national potential of hydro power generation. Himachal Pradesh is currently harnessing its power potential through the Himachal Pradesh State Electricity Board (HPSEB), central power sector PSUs, public-private sector ventures and through the private sector. The rich sources of hydroelectric potential in the state are in its five river basins, namely, Yamuna, Satluj, Beas, Ravi and Chenab. The Basin-wise details of the assessed potential are as follows:

Name of projects	Capacity (MW)
Yamuna	817
Satluj	10,361
Beas	5,357
Ravi	2,958
Chenab	2,973
Self Identified/New Identified	534

The state government has been giving the highest priority for its development, since hydel generation can meet the growing need of power for industry, agriculture and rural electrification. Since it meets electricity requirements for other states as well, it is regarded as the biggest source of income to the state. Hydro power can thus be regarded as an important catalyst for speedy growth and development of the state.

Though private sector participation, in terms of investments, has been encouraging, the smaller projects have been reserved for investors from Himachal Pradesh only (up to 2 MW) and preference is given for projects up to 5 MW. The Himachal Pradesh government has formulated a Hydro Power Policy to give a boost to the hydro power generation in the state. 8,368 MW hydro power has been harnessed out of the potential 23,000 MW identified.[68] Around 1,906 million[69] units of electricity were generated during the year 2011-12.

Total identified Hydro Power potential (MW)					
	State sector HPSEBL/ HPPCL (MW)	Central/ Joint sector (MW)	Private sector		Total (MW)
			Above 5 MW	Up to 5 MW (through HIMURJA)	
Projects commissioned	473	5875	1815	205	8368
Under execution/ construction	521	2532	581	171	3805
Under implementation/ Obtaining clearances	538	66	990	670	2264
Under	2087	775	3176	245	6283

[68] *Economic Survey of Himachal Pradesh 2012-13*
[69] *Economic Survey of Himachal Pradesh 2012-13*

investigation					
Under litigation/ dispute			1011		1011
Abandoned schemes in view of environmental & social concerns			735		735
To be allotted			534		534

2) Pharmaceutical products:

Himachal Pradesh is increasingly emerging as the pharmaceutical hub of the country owing to incentives announced by the State Government in its Industrial Policy, 2004. More than 300 pharmaceutical companies have set up operations in the state, including Ranbaxy, Dr Reddy's, Morepan and Torrent Pharmaceuticals.

Further, availability of important resources in the form of material base of fruits, vegetables, high value cash crops and other naturally growing herbal plants, Himachal Pradesh has the enhanced the state potential to develop industries like bio-pharmaceuticals, photochemical, bio-prospecting, fermentation, bio-processing, pharmaceuticals, biochemical, genetically engineered micro-organisms, enzyme production etc.[70]

Amongst all other districts of Himachal Pradesh, Solan accounts for a large number of pharmaceutical units and investments. Nalagarh, one of the development blocks of Solan district of Himachal Pradesh is also known as the Pharma Hub, after the introduction of Special Subsidies by the Prime Minister of India in the year 1999. Around 200 medium and large-scale units are coming up in and around Baddi, a development block in Solan district.

Baddi is emerging as the pharmaceutical industry capital of India.[71] There are over 800 medical and pharma companies in Baddi alone including giants like Cipla and Dabur. It is expected that more than half of India's pharmaceutical production, mainly formulations, would originate from Himachal Pradesh in few years.

A proposal of BBNDA for Pharma and allied industries cluster at Baddi, Barotiwala, Nalagarh area under the Industrial Infrastructure up-gradation scheme (IIUS) covering three components i.e. Setting up of common effluent plant and recovery, road widening and strengthening and setting up of Skill development centre has been sanctioned by the Government of India. Component wise details are as below:

S. No.	Particulars	Total Grants (crores)	Central grant
1	Common effluent Plant and recovery	53.80	57.14
2	Road Widening and strengthening	17.24	
3	Skill development centre	8.10	
4	Fixed Assets	0.16	
5	Administrative Expenses	1.20	1.14
	Total	8.50	58.28

The details of approved sharing pattern are as under:

[70] *http://www.niir.org/profiles/profiles/identified-project-opportunities-himachal-pradesh/z,,99,0,a/index.html*
[71] *http://www.himachalpradesh-info.in/baddi-himachal-pradesh/*

Central Grant	State Grant	Industries Contribution	Term loan	Total
58.28	7.00	9.22	6.00	80.50

3) Food processing:

Himachal Pradesh has a robust food processing sector, which is primarily in the areas of traditional processing of agricultural and horticulture raw material. Processing industries of ginger, potato and vegetables in valley areas have great investment scope. High-quality potato produced in the lower region of Himachal Pradesh, specifically in the Paramour and Nagoya Bagwan belt of Kangra district.

Certain low hill areas of Mandi district have also attracted food processing industries. The key players in Food processing Himachal Pradesh are Adani Agri fresh, Dharampal Satyapal group, HPMC, Nestle India, Dabur, Mahaan group and Himalyan Organics

In order to promote the food processing industry in Himachal Pradesh, the State government is coming out with a 'Vision Document' and a road map. There is also encouragement for setting up of food parks in the state.[72]

4) Bottling of mineral water:

Himachal Pradesh, a place with abundance of natural springs, has obtained licenses for bottling mineral water. TATA, Bisleri India Pvt. Ltd, Sheelpe Enterprise, D.S. Group, Luthra Water Systems Pvt. Ltd. and other major players source natural water from the Himalayan Mountain range, mostly bottled at source without any further treatment. Since Himachal Pradesh has rich sources of water in the form of drainage systems of Chenab, Ravi, Beas, Satluj and Yamuna rivers, there is tremendous potential for establishment of industries involved in bottling of mineral water in the state.

5) Handicrafts:

There are a number of handicrafts products that Himachal Pradesh is famous for. Some of the main ones being carpets, shawls, wood work, paintings and leather works. Himachal Pradesh State Handicrafts & Handloom Corporation Limited (An H.P. State Government Undertaking) was established in the year 1974 with the objective to assist and promote the interests of the poor weavers and artisans of the state. The Corporation aims to ensure their welfare by imparting training, design inputs, raw material, reviving the languishing crafts and providing them marketing facilities through its chain of emporia located within and outside the state. With the financial assistance of the Ministry of Textiles, Government of India, the Corporation is running a handloom cluster development scheme in Kullu (Himachal Pradesh) under the Integrated Handloom Cluster Development Scheme.[73]

The Pashmina shawls made here are famous in the entire country. Kullu district is known for its shawls with striking patterns and vibrant colors. The colorful Himachali caps are another famous art work of the people of Himachal Pradesh. A tribe called Dom has expertise in manufacturing bamboo items like boxes, sofas, chairs, baskets and rack.

Wood is available in abundance in the state due to the existence of rich forests here. As a result, wood carving is still a living tradition of the state. Things like fruit bowls, beer mugs, wooden jewellery, decorative boxes and carved images are also carved out of wood. Places like Chamba, Tisza, Kalpa, Kinnaur district of and Kullu of Himachal Pradesh are famous for woodcraft. The men of Himachal Pradesh are actively involved in carpentry while the women indulge in pottery.

[72] *http://himsamachar.com/himachal-poised-to-become-industrial-hub/*
[73] *http://www.himcrafts.com/*

Himachal Pradesh is rich in traditional paintings. The state is also known for its leather craft. The traditional slippers of Chamba being one such example of the leather craft. These are embroidered with colorful threads and at times with Zari (golden thread).

6) Sugar and sugar products:

Due to the unsuitable climatic conditions for the cultivation of sugarcane, the sugar industry in Himachal Pradesh is not as developed as it is in other states. The state government has made efforts to promote it and has declared it as a thrust industry for the state. The other benefits that the sugar industry provides are in the form of increased employment, transport and communication facilities. The sugar mills of Himachal Pradesh are primarily located in Una and Paonta Sahib.

The latest technology used by the sugar mills in the state enable it to manufacture high quality sugar. Various grades of sugar are produced in these sugar mills such as super fine white quality, M-30, and S-30. [74]

7) Paper and paper products:

Saber Paper Ltd. is one of the major paper companies located in Tahaliwal in Una district of Himachal Pradesh. The company produces high quality paper from waste paper and the water used is recycled by the company which is not only saves the precious water resources but is also helping in conserving the environment.[75]

Himachal Pradesh has seen a considerable decline in the number of pulp and paper mills in the state. Starting from 2000, there were 15 pulp and paper mills, it fell to 7 in the year 2002 and further down to merely 2 pulp and paper mills in the year 2004.[76] However, the state government has identified paper and paper products' industry as a focus area for growth and plans to bring out a revival mechanism for the industry to boost the sector.

Primary Sector

8) Floriculture:

The agro-climatic conditions of Himachal Pradesh offer lucrative opportunities for the development of floriculture in the state.[77] Floriculture is being adopted in the district of Bilaspur in a big way. The flowers grown in Himachal Pradesh are in great demand in the Indian market.

Flower production has expanded from Solan and Kangra districts to across the state and moved from traditional flowers to more exotic flowers such as carnation, lily, gladiolus and chrysanthemum.[78] Financial assistance and technical inputs have helped in the spread of floriculture in the state. Area under commercial floriculture has increased steadily from 30 ha in 1993-94 to 682 ha in 2009-10.[79] Sirmaur, Kangra, Mandi, Chamba, Shimla, Solan, Bilaspur and Kullu are the major flower growing districts in the state where mainly gladiolus, marigold, chrysanthemums, rose, carnation, lilium are cultivated.

Alstroemeria, Timonium, Zantedeschia, Iris, Strelitzia, Tulips, Gerbera, Orchid are potential crops for Himachal Pradesh. According to estimates, floriculture crops worth INR41.82 crores were grown during 2009-2010, benefiting around 2800

[74] *http://business.mapsofindia.com/sugar-industry/himachalpradesh.html*
[75] *http://himachalpr.gov.in/Features/SUCCESS%20STORY-3E10.htm*
[76] *http://www.cpcb.nic.in/newitems/45.pdf*
[77] *State department of Horticulture, Government of Himachal Pradesh*
[78] *http://www.floriculturetoday.in/Floriculture-Development-inNorth-East-Himalayan-States.html*
[79] *http://www.floriculturetoday.in/Floriculture-Development-inNorth-East-Himalayan-States.html*

farmers.[80] A large number of floriculture products can be produced as cash crops, giving a boost to the economy of Himachal Pradesh.

The Department of Horticulture has established seven Floriculture Nurseries in Navbahar and Chhrabra in Shimla District, Mahog Bag and Parwanoo in Solan District, Bajaura in Kullu District and Dharamshala and Bhatoon in Kangra District.[81]

9) Horticulture and Agro based industries:

Agriculture plays a very important role in the economy of the state. It is the main source of income and employment in the state. Himachal Pradesh has also made significant progress in the development of horticulture. Horticulture crops have the inherent advantage of providing higher productivity per unit area of land as compared to other crops, resulting in higher income and employment generation in rural areas for the state.

The state government recognizes various horticulture and agro-based industries like sauces, ketchup, fruit juices and fruit pulp, jams, jellies, vegetable juices, puree, pickles, preserved fruits and vegetables etc as thrust industries.

Out of the total geographical area of around 55.67 lakhs hectares, net sown area accounts for 5.6 lakhs hectares of land.[82] The total cropped area in the state is around 9.86 lakhs hectares.[83] 81.5 percent of the total cropped area is rain fed.[84] The main crops grown in the state are wheat, maize, paddy and barley. Potato, ginger, mushrooms, olives and figs are also grown here in abundance.

The total area under horticulture in the state for the year 2011-12 was around 214,574 hectares[85]. Also known as the Apple state of India, area under apple cultivation was around 103,644 hectares[86] for the entire state (2010-11). Around 275,036 metric tonnes[87] of apple was produced in Himachal Pradesh in the year 2011-12. Bulk of the apple is produced in five districts of Shimla, Kullu, Mandi, Kinnaur and Chamba.

In order to give a boost to horticulture production in the state, 'Apple Re-plantation Project' with investment of INR 85 crores is being implemented in Himachal Pradesh to replace old and low yielding variety trees with more productive and quality varieties of apple root-stocks.[88] An area of 5000 hectares would be covered under this project. Apart from this, in order to bring diversity in horticulture activities, 'Horticulture Technology Mission' is also being implemented in the state. An INR 3.54 crores Modern Fruit Vegetable Pack House is being established at Nadaun in Hamirpur district.[89] In addition to this, Pack Houses at Reckongpeo, Jarol-Tikkar (Kotgarh), Gumma (Kotkhai), Oddi (Kumarsain) and Patlikhul (Kullu) are being upgraded by spending an amount of INR8 crores.[90]

Solan district of Himachal Pradesh is also known as the "Mushroom city of India" because of the vast mushroom farming in the area as well as the mushroom research centre situated at Chambaghat. The total production of mushroom in 2011-12 stood at 7,201.63 metric tonnes.[91]

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[80] *http://www.floriculturetoday.in/Floriculture-Development-inNorth-East-Himalayan-States.html*
[81] *http://hpagrisnet.gov.in/horticulture/downloads/FloraExpo.aspx*
[82] *http://www.hpagriculture.com/Land_Use.htm*
[83] *http://www.hpagriculture.com/Land_Use.htm*
[84] *Economic Survey of Himachal Pradesh 2012-13*
[85] *http://hpagrisnet.gov.in/horticulture/PDF/Horticulture%20At%20A%20-Glance.aspx*
[86] *http://hpagrisnet.gov.in/horticulture/PDF/Horticulture%20At%20A%20-Glance.aspx*
[87] *http://hpagrisnet.gov.in/horticulture/PDF/Horticulture%20At%20A%20-Glance.aspx*
[88] *http://www.phdcci.in/admin/userfiles/file/Research-Bureau/Himachal-Pradesh-State-Profile.pdf*
[89] *http://www.phdcci.in/admin/userfiles/file/Research-Bureau/Himachal-Pradesh-State-Profile.pdf*
[90] *http://www.phdcci.in/admin/userfiles/file/Research-Bureau/Himachal-Pradesh-State-Profile.pdf*
[91] *http://hpagrisnet.gov.in/horticulture/PDF/Horticulture%20At%20A%20-Glance.aspx*

Honey production is also an important activity in the state, with around 1,608.4 metric tonnes[92] of honey being produced in 2011-12. Owing to the diverse flora and fauna that Himachal Pradesh is blessed with, the quality of honey produced here is of very high grade. Around 30,000[93] farmers engaged in bee-keeping in Kangra district alone, producing 1,200 metric tonnes of honey annually. Due to the importance of honey bees in the successful pollination of fruit plants and the production of valuable honey and the bees wax, the department of Horticulture Himachal Pradesh has taken up development of beekeeping on priority basis. According to estimates, around 2, 00,000 bee colonies are needed for appropriate pollination in the state.[94]

10) Silk and silk products:

Sericulture is one of the important agro-based rural cottage industries of Himachal Pradesh that provides gainful employment to around 9,000 rural families for supplementing their income by producing silk cocoons.

Sericulture and silk industry promotion and development have been given priority as it is an environment friendly, effective socio-economic tool for generation of employment in the rural areas. Himachal Pradesh is famous all over India for the quality of the bivoltine silk cocoons it produces, which is supported by the favorable climatic conditions prevailing in the state.

In order to promote the development of Sericulture industry, a 'Sericulture Wing' was set up in 1951 under the state Industries Department.[95] There are 72 Sericulture Extension-cum-chawki centers in Himachal Pradesh, that conduct incubation of silkworm eggs, young age rearing and distribute chawki-reared silkworms to the farmers for late age rearing for production of silk cocoons, besides distributing mulberry saplings and providing technical guidance to the sericulturists. There are also 83 Mulberry farms and 28[96] government Mulberry nurseries in Himachal Pradesh. Sericulture is concentrated in the districts of Bilaspur, Kangra, Mandi, Hamirpur, Una and Sirmaur. At present, Bilaspur district is the biggest producer of silk-cocoons in the state, accounting for 33.5 percent production followed by Mandi 33.3 percent, Kangra 14.1 percent and Hamirpur 10.8 percent. [97]

During the year 2012-13, up to December 2012, 179.55[98] metric tonnes of silk cocoons were produced in the state. This was converted into raw silk of 22.45 metric tonnes, generating an income of around INR475.5 lakhs by sale of silk products.[99]

The state government is implementing a number of schemes and programs to promote Sericulture industry. Apart from this, subsidy in kind is given to the beneficiaries on supply of vital inputs like mulberry saplings from the departmental nurseries, silkworms and disinfecting materials.[100]

11) Wool and wool products:

The woolen sector plays an important role in linking the rural economy with the manufacturing sector. With almost 90 percent of Himachal Pradesh population residing in the rural areas, this sector is one of the thrust areas for development

[92] *http://hpagrisnet.gov.in/horticulture/PDF/Horticulture%20At%20A%20-Glance.aspx*
[93] *http://www.indianexpress.com/news/honey-from-the-hills/959200/*
[94] *State department of Horticulture, Government of Himachal Pradesh*
[95] *http://himachal.nic.in/industry/pdf/Seri-Status-Note.pdf*
[96] *http://himachal.nic.in/industry/pdf/Seri-Status-Note.pdf*
[97] *http://himachalpr.gov.in/features/FEATURE-9E.htm*
[98] *Economic Survey of Himachal Pradesh 2012-13*
[99] *Economic Survey of Himachal Pradesh 2012-13*
[100] *http://himachal.nic.in/industry/pdf/Seri-Status-Note.pdf*

in the state. Due to lack of opportunities and small land holdings, sheep-rearing is the chief vocation of most farmers in the state. Angora rabbit breeding is also being given priority by the state government.

However, presently, Himachal Pradesh does not have any organized Mill Sector dealing exclusively with wool-based industry. [101] The state has an established tradition of handloom industry in woolen sector. The annual wool production is around 1,600 tonnes[102]. Around 10 metric tonnes[103] of Angora wool is also produced in the state annually.

The import of high quality wool and Pashmina from China with the revival of Indo-China border trade is likely to further help in the development of the woolen industry in the state. With the presence of renowned sheep breeds of India in Himachal Pradesh, the wool produced is better than the carpet wool produced by the sheep of Rajasthan and can easily be used for the production of woolen products.

During the year 2011-12, 11.20 lacs ton of milk, 1,648 tonnes of wool, 105.00 million eggs and 3966 tonnes[104] of meat was produced in the state, indicating the importance of livestock in the sustainability of the economy of the state.

Tertiary Sector

12) Eco-tourism:

Himachal Pradesh, a place famous for its abundant natural beauty, is a well-established and well recognized tourist destination. Lush green valleys, snow covered Himalayan ranges, a serene, peaceful, hospitable and comfortable environment along with a rich cultural heritage has attracted people not only from India but from abroad as well. The number of tourist arrivals in Himachal Pradesh stood at 1.5 crores[105] for the year 2011. Visitors from UK comprise the largest proportion of foreign tourists with 15 percent share of the total foreign visitors.[106] Adventure tourism is gaining popularity in the state at a fast pace. World class river rafting and paragliding facilities are also available here.

However, it has been seen that there might be some threats being faced by the state economy due to the growing tourist numbers like haphazard growth and construction threatening the environment, especially at the leading tourist destinations, alarming growth of concrete structures creating a disharmony with the local environment etc. Thus there is a growing need to support and develop eco-tourism in the state.

The government of Himachal Pradesh has established an Ecotourism society of Himachal Pradesh with an aim to preserve and protect the natural, historical and cultural heritage of the state for it to become a preferred destination for visitors. Government of India has also approved a project of INR 3.68 crores for creation of Eco-tourism infrastructure in pre-identified Eco-circuit against which INR 2.945 crores has already been released and spent[107]. The eco tourism projects which are mainly situated in forest lands are technically under the Forest department. The department has already formulated an Eco Tourism policy in consultation with the Tourism Department, under which Ecotourism Societies have been established on CBET (Community Based Eco- Tourism basis) to cover the Great Himalayan National Park (Kullu), Himalayan Nature Park (Shimla), Renuka Wildlife Sanctuary (Sirmaur) and Potter's Hill Van Vihar (Shimla).[108]

[101] *http://himachal.nic.in/woolfed/aboutus.htm*
[102] *http://himachal.nic.in/woolfed/aboutus.htm*
[103] *http://himachal.nic.in/woolfed/aboutus.htm*
[104] *Economic Survey of Himachal Pradesh 2012-13*
[105] *Himachal Statistical handbook*
[106] *Tourism in Himachal Pradesh and the way ahead, KPMG report*
[107] *Economic Survey of Himachal Pradesh 2012-13*
[108] *Tourism Policy 2005, Government of Himachal Pradesh*

The Himachal Pradesh Tourism Development Corporation (HPTDC) has been using print media to promote tourism in the state. The department also uses TV channels, primarily news channels to advertise tourism. It participates in various national level tourist festivals across the country and also conducts road shows to draw more tourist attention. Himachal Pradesh has also received the National Tourism Award for the best work done by Ministry of Tourism and Civil Aviation.

In order to create infrastructure for tourism development in the state, an Asian Bank Project of INR430 crores is being implemented. Apart from this, tourist circuits for Solan, Hamirpur, Naldehra, Una-Hamirpur-Bilaspur, Jogindernagar-Bir-Billing, Chail Destination, Sundernagar, Jubbal-Kotkhai, and Shimla-Theog-Narkanda are being developed. INR53.37 crores has been sanctioned for the same.[109]

13) Information & Communication Technology Industry:

In order to ensure the process of furthering the development of IT in the state, the Department of Information Technology (DoIT) was created in January 2004. Himachal Pradesh has the distinction of being the first state in the country to commission a Himachal State Wide Area Network (HIMSWAN) project to accelerate the growth and use of IT by creating an infrastructure that can be used to provide all connectivity and services not only to the Government but also to citizens, over a period of time, rapidly narrowing the digital divide and promoting the all pervasive use of IT in all matters of state.

The Himachal Pradesh government is providing Computer labs to approximately 72 government colleges of the state with the aim of imparting IT skills to the students of various Government degree /post graduate colleges in the state[110]. A modern Software Technology Park and an Earth Station has been established at Shimla that offers facilities such as high speed communication, plug and play built modules, international bandwidth for internet etc.

The state government is undertaking various initiatives to develop the information and communication technology industry in the state. An IT park of 64.73 acres is proposed to be set up in Waknaghat in Solan district which is expected to provide employment to around 25,227 people 2505 dwelling units for IT professionals of different levels[111]. Department of Information Technology and National Informatics Centre (A Central Government Agency) are providing technical assistance to all the departments in the implementation of various e-Governance projects. The department is also providing technical advice to line departments regarding procurement of hardware, software and allied accessories.

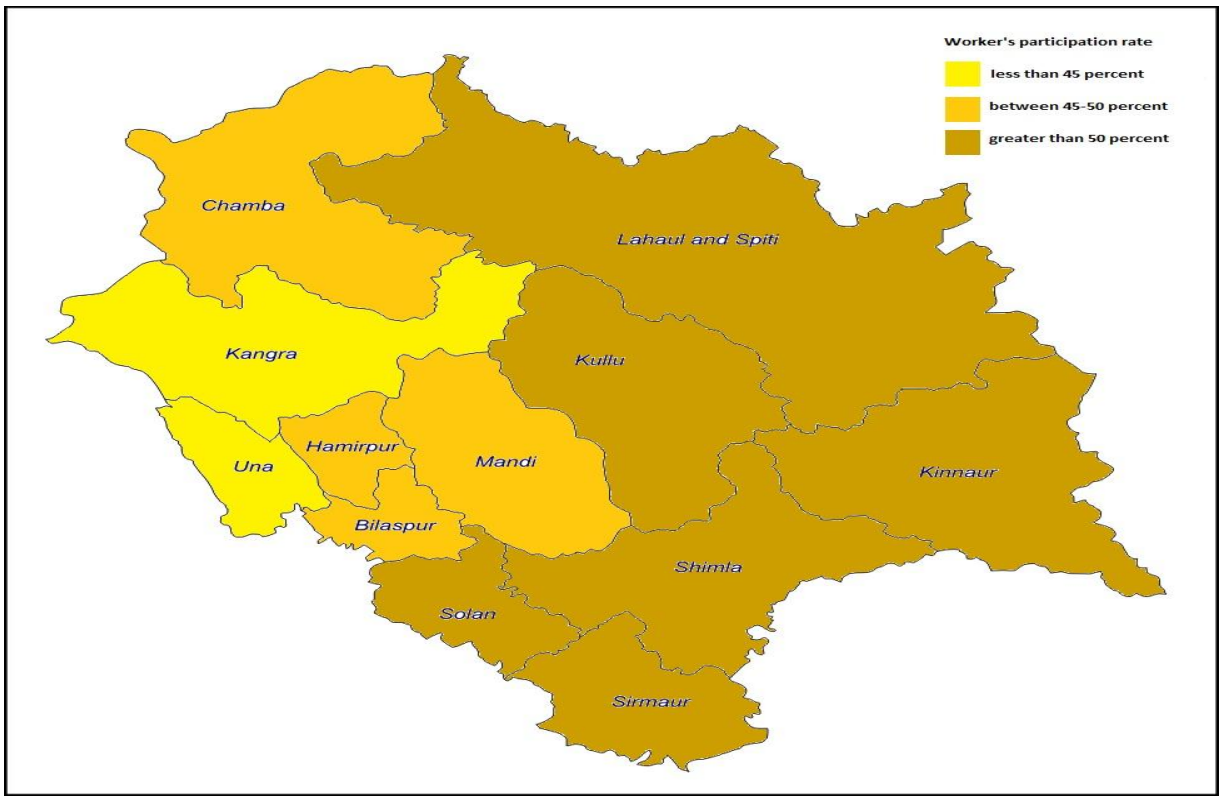
6.2 Work Force Distribution in the State

Himachal Pradesh has witnessed significantly high participation of working age group in economic activities. As per NSSO 68th Round Employment Survey, Labour Participation Rate (LPR) per 1000 persons from 15-59 age groups in the state, based on current daily status, stood at 526 in comparison to the national average of 395[112] . While the overall LPR has been better than national average, low female participation across both urban and rural areas is a key concern. Urban female participation in labor force is lower than the rural regions due to dependency on agricultural and allied activities among rural female population. Low female labor force participation in urban areas is related to limited employment opportunities available for unskilled/semi skilled women provides enormous opportunities for creating additional employment especially in household industries through specific training and support.

[109] *http://www.phdcci.in/admin/userfiles/file/Research-Bureau/Himachal-Pradesh-State-Profile.pdf*
[110] *http://himachaldit.gov.in/Pages/file.axd?file=2013%2f4%2fAnnual+Report+2011-12_Draft+v5+0.pdf*
[111] *http://himachaldit.gov.in/Pages/file.axd?file=2013%2f4%2fAnnual+Report+2011-12_Draft+v5+0.pdf*
[112] *NSSO,68th round*

Worker Population Ratio (WPR) per 1000 persons from 15-59 age groups in Himachal Pradesh at 520 is higher than the national average of 386 in line with Labour Participation Rate.[113] While there is significant difference in participation rates across urban and rural regions with the participation rates better in rural areas, seasonal nature of agricultural work would mean underemployment for a significant section of the agricultural workforce force in the state. Issue of unemployment therefore has to be addressed through skill development initiatives aimed at ensuring employability. District wise variations in participation rates are significant in Himachal Pradesh. As per 2001 estimates, districts of Kinnaur, Lahaul & Spiti, Kullu registered high percentage of total workers while Una and Kangra have registered percentage of total workers. High participation rates in rural regions are attributed to high dependency on agriculture and allied activities. Detailed classification of districts into high, medium and low total workers' regions is presented in the map.

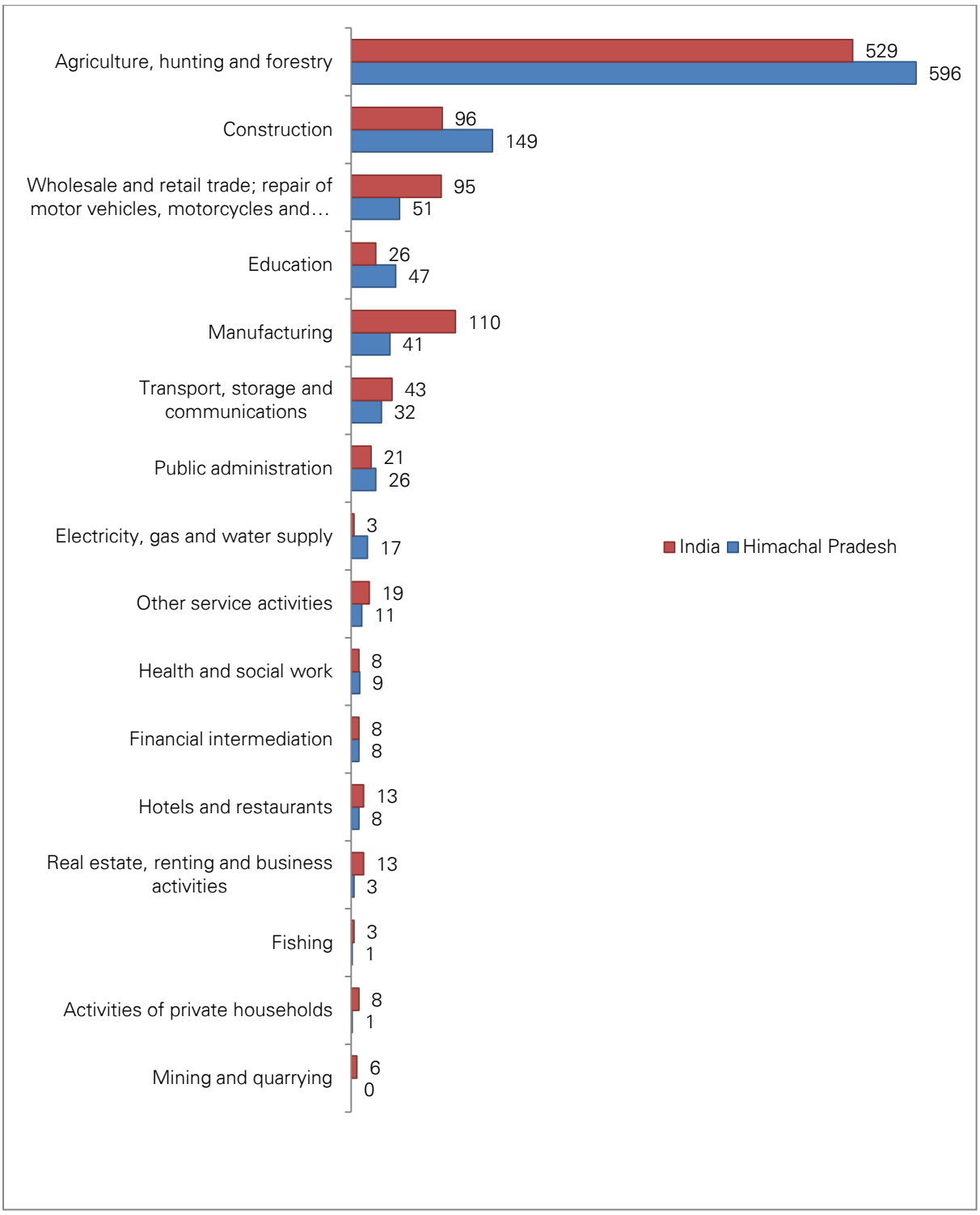
Regional variations in percentage of total workers among the districts of Himachal Pradesh[114].



While agriculture and allied activities still remain prime source of livelihood for majority of workforce, state has high dependency on manufacturing, retail and series activities in comparison to national standards. Detailed industry wise classification of workforce in Himachal Pradesh is presented in the chart below.

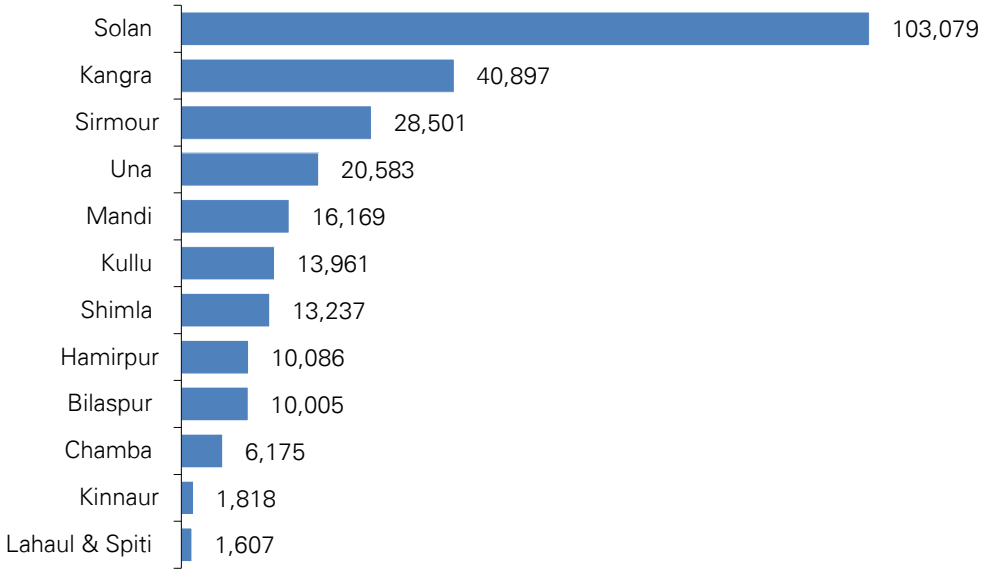
Comparison of Workforce Distribution in Himachal Pradesh with India[115]

[113] *http://mospi.nic.in/Mospi_New/upload/Key_Indicators_Emp_&_Unemp_66th_round.pdf*
[114] *Census of India, 2001*
[115] *NSSO 66th Round Employment, Unemployment Sample Survey*



Regional and sectoral analysis of large scale industrial employment indicates a clear concentration of employment in key sectors within key districts. Kangra and Solan account for a majority share of employment in this category. While, other districts like Kinnaur and Lahaul & Spiti have very lower levels of industrial employment opportunities. Regional break up of industrial employment in small, medium and large scale sector up to 31 March 2012 is presented in the chart[116]

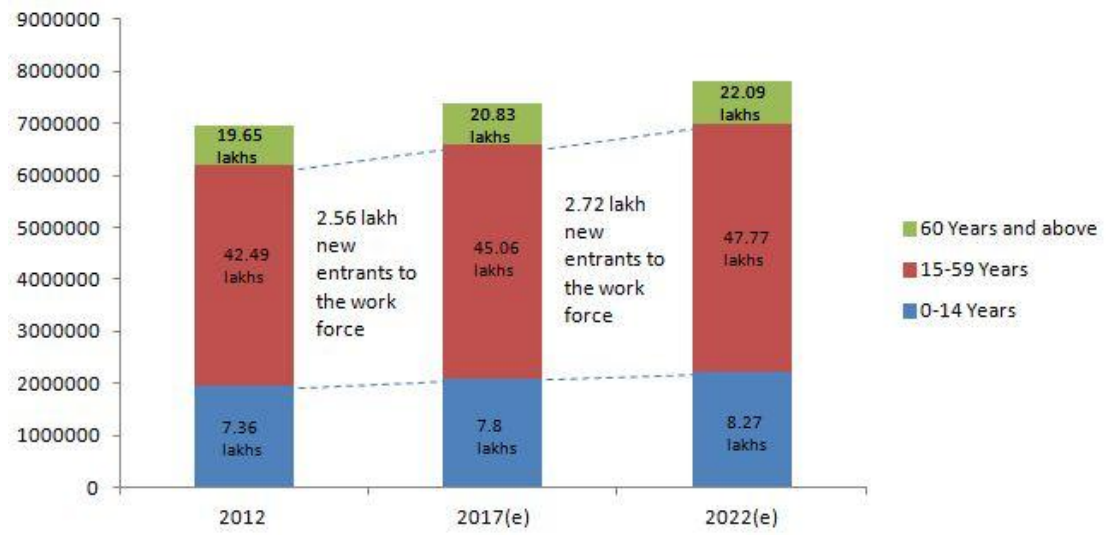
[116] *http://himachal.nic.in/industry/indstatus.htm*



6.2.1 Human Resource Supply Scenario in the state (2012-17, 2017-22)

Demographic composition of Himachal Pradesh has been witnessing significant changes largely due to control of population growth and regional migration of working age. As per KPMG estimations, in the near term, Himachal Pradesh will have significant demographic dividend, with a rising working age population. Between 2012 and 2017, an additional 2.56 lacs[117] are expected to enter the labor market followed by another 2.72 lacs during 2017-22[118]. Demographic composition trends in state population are presented in the chart.

Himachal Pradesh Demographic Estimations[119]

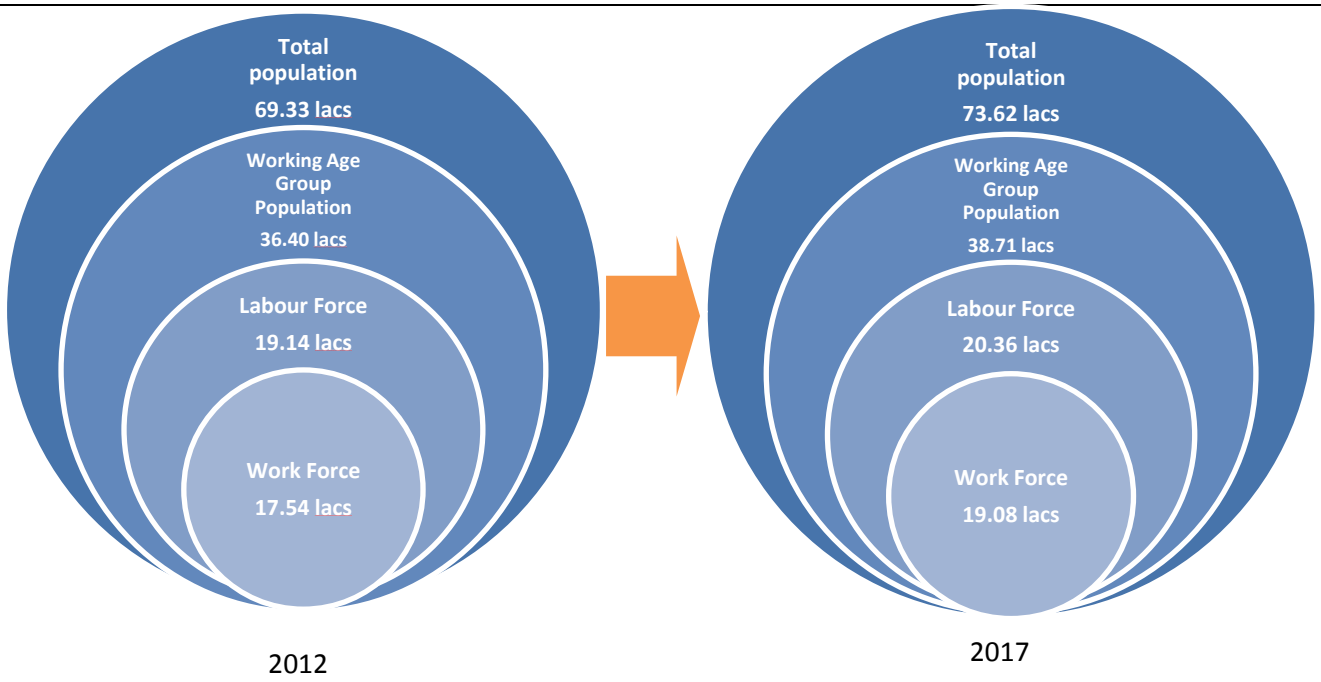


[117] *KPMG Analysis*
[118] *KPMG Analysis*
[119] *KPMG Analysis*

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.

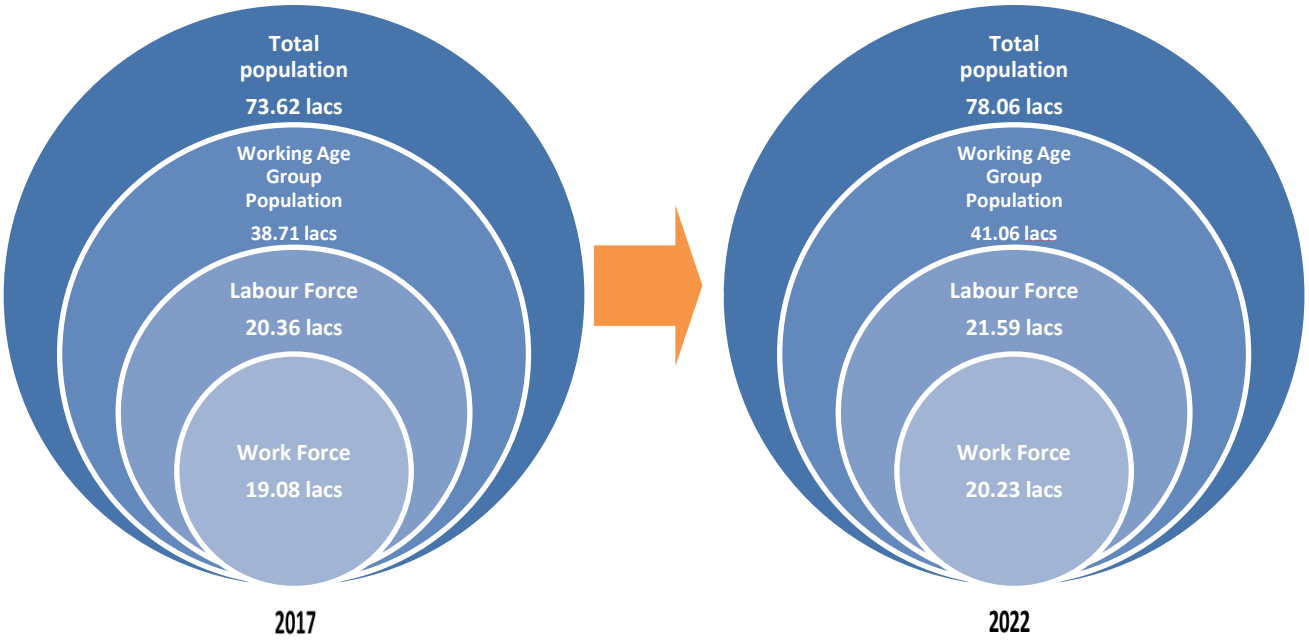
Himachal Pradesh workforce projections for 2012, 2017 and 2022 are estimated considering the LFPR from the NSSO 68th Round Employment Survey, and applying it over the estimated population in the 15-59 age groups for these periods. Overall workforce would change because of the change in working age group population (15-59 age groups). Availability of working age population measured from the 15-59 age group population is estimated to grow from 36.40 lakhs[120] in 2012 to 38.71 lakhs[121] by 2022. Labour force measured from number of people looking for employment in the working age group is expected to reach 20.36 lakhs[122] , further increasing the need for employment creation over the next decade and to even sustain the current levels of labour force and worker participation rates. Expected demographic composition changes in Himachal Pradesh during 2012-22 are presented in the charts.

Expected Demographic Composition Transformation in Himachal Pradesh from 2012-17 [123]



[120] *KPMG Analysis*
[121] *KPMG Analysis*
[122] *KPMG Analysis*
[123] *KPMG Analysis*

Expected Demographic Composition Transformation in Himachal Pradesh from 2017-22 [124]



District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau. Further, districts were classified into high growth, medium growth, low growth categories based on incremental supply during 2012-22.

	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
State/ District	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Himachal	641,878	**337,628**	**121,994**	590,115	**310,400**	**123,304**
Bilaspur	35,719	18,824	6802	32,839	17,306	6,875
Chamba	48,543	26,002	9,395	44,628	23,905	9496
Hamirpur	42,528	23,173	8,373	39,099	21,304	8,463
Kangra	141,217	66,449	24,010	129,829	61,090	24,268
Kinnaur	7,867	5,394	1,949	7,232	4,959	1,970
Kullu	40,875	24,426	8,826	37,579	22,456	8,920
L&S	2,952	2,379	860	2,714	2,187	869
Mandi	93,496	51,254	18,519	85,956	47,121	18,718
Shimla	76,123	41,770	15,093	69,985	38,402	15,255
Sirmaur	49,550	25,483	9,208	45,554	23,428	9,307

[124] *KPMG Analysis*

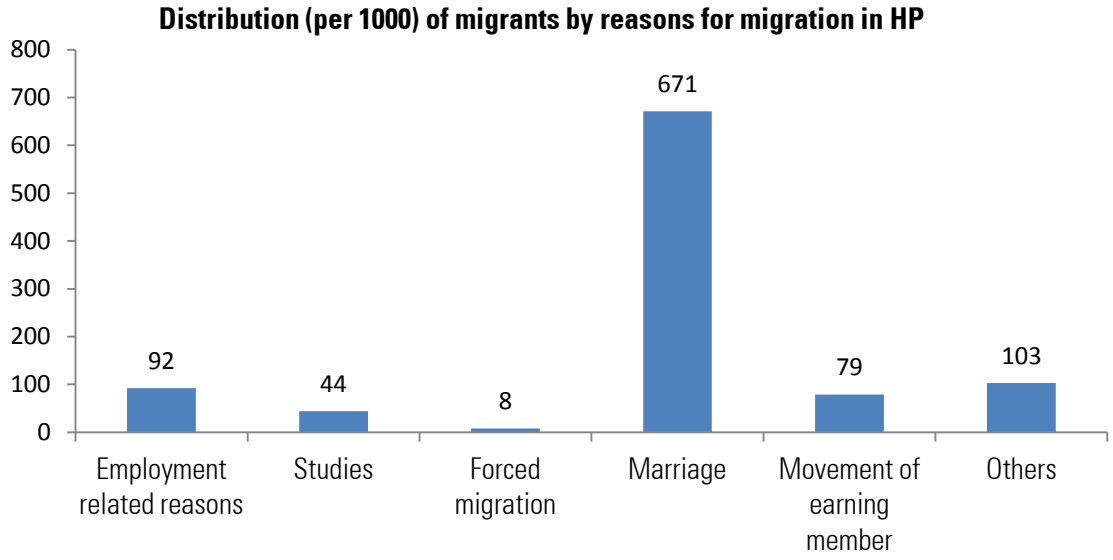
State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Solan	54,269	29,722	10,739	49,893	27,325	10,855
Una	48,738	22,751	8,221	44,808	20,916	8,309

State/ District	Net Labour Force Supply 2012-17				Net Labour Force Supply 2017-22			
	Skilled	Semi skilled	Minimally skilled	Total	Skilled	Semi skilled	Minimally skilled	Total
Himachal	**43,476**	**26,005**	**52,513**	**121,994**	**43,942**	**26,284**	**53,077**	**123,304**
Bilaspur	1,548	2093	3161	6,802	1,564	2116	3195	6,875
Chamba	1169	931	7295	9,395	1182	941	7373	9,496
Hamirpur	4339	3095	939	8,373	4385	3128	950	8,463
Kangra	7656	3693	12661	24,010	7738	3732	12797	24,268
Kinnaur	104	348	1496	1,949	105	352	1512	1,970
Kullu	1,522	3043	4261	8,826	1,538	3075	4307	8,920
L&S	13	224	623	860	13	226	630	869
Mandi	5130	2249	11,140	18,519	5185	2274	11259	18718
Shimla	9969	2652	2471	15,093	10,076	2681	2498	15,255
Sirmaur	1922	2275	5011	9,208	1,942	2300	5064	9,307
Solan	7008	3173	558	10,739	7084	3207	564	10,855
Una	3074	2205	2942	8,221	3107	2229	2973	8,309

7 Migration situation in the State

Migration in Himachal Pradesh is high in comparison to the scenario at the all India level, with a migration rate of 391 per 1000 persons. The migration rate at the all India level is 285 per 1000 persons. Himachal Pradesh has a significantly higher migration in urban areas as compared to the rural areas, which is similar to the trend observed at the national level. The internal migrations within the state were noticed at four levels i.e. rural to rural which was 755 per 1000 persons; urban to rural which were 126, rural to urban at 84 and urban to urban at 36 per 1000 persons.

The reasons for migrations were analysed through the NSS report and the following observations were noticed



It was noted that maximum migration in Himachal Pradesh happen for marriage related reasons and employment related reasons. The other reasons of migration include the citizens of upper Himachal such as Lahaul and Spiti and Kinnaur having double establishments in districts like Kullu during winter season to escape the harsh weather.

Distribution of migrants was also analyzed by their usual principal activity status before and after migration. It was inferred that 265 out of 1000 persons were engaged in self employment, 89 were regular waged/salaried, 21 were casual labour, 15 were unemployed and 610 were not in the labour force at all. These numbers changed significantly when analyzed after migration. It was noticed that after migration 416 persons out of 1000 were self employed, 93 were regular wage/salaried, 23 were casual labour and 14 were unemployed.

8. Human Resource Requirements in the State

8.1 Incremental Manpower Requirement Projections (2012-17, 2017-22)

Manpower growth in the districts of Himachal Pradesh 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.

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 the 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 wise skill level requirements during 2012-22

	Incremental Manpower Requirement (2012-17)				Incremental Manpower Requirement (2017-22)			
Sector	**Skilled**	**Semi Skilled**	Minimal skilled	**Total**	**Skilled**	**Semi Skilled**	**Minimal skilled**	**Total**
Agriculture & Allied Activities	NA	NA	(16,765)	(16,765)	NA	NA	(16547)	(16547)
Construction	21356	42714	363061	427131	24,499	48999	416487	489985
Banking & Financial Services	12747	38240	-	50,987	13728	41,183	-	54910
Communication	5680	17041	-	22721	5691	17072	-	22,762
Transportation	880	13966	16616	31462	943	14981	17823	33,747
Healthcare	3942	15767	-	19,709	4067	16268	-	20,336
Drugs and Pharmaceuticals	1046	4185	5231	10,462	522	2,087	2,609	5218
Trade, Retail	680	680	5438	6797	560	560	4482	5603
Education & Training	555	3738	-	4294	88	592	-	680
Hospitality & Tourism	412	618	3089	4119	368	552	2758	3678
Textile & Apparel	379	1517	1896	3793	556	2224	2781	5561
Fabricated Metal products	306	1226	1532	3065	288	1152	1440	2880
Chemical & Chemical Products	209	834	1043	2085	231	925	1156	2311
Mineral Processing & Fabrication	5	20	25	50	27	109	136	272
Manufacturing of Engineering Goods	110	442	552	1105	122	488	611	1221
Agro, Beverage & Food Processing	191	747	1071	2009	241	939	1347	2527
Electrical & Electronics	42	169	212	423	48	191	239	477
Construction Material Manufacturing	54	214	268	536	72	287	359	718
Rubber & Plastics	24	97	121	243	27	109	137	516
Paper & Paper Products	32	127	159	319	36	144	180	359
Hydel Power	755	189	943	1886	755	189	943	1886
Total	**49406**	**142532**	**384493**	**576431**	**52868**	**149052**	**436940**	**638860**

Source: KPMG Analysis

8.1.2 Summary of Skill Requirements in High Growth Sectors

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below[125].

Secondary Sector (Manufacturing, Construction & Energy):

- **Auto & Auto Components**

Category of skills	**Skills**
Core Skills:	Motor Mechanic, Diesel Mechanic, Fitter, Welder, Sheet metal workers, Injection and Compression molding, CNC operators, Fabricators, MIG and Arc welders
Allied Skills	Electrician, Wiremen
Skills with acute shortage	Specialized welders in Arc welding, MIG welding who can work in extreme conditions on advanced fabrication equipments
Current status	The industry mostly hires experienced workers from Gurgaon and Ludhiana. The welding course at ITIs mostly focuses on arc welding. The course includes only one class on MIG welding and the workers need extensive training on the job.

[125] *KPMG Analysis*

- **Textiles :**

Category of Skills	Skills
Core Skills	Ring frame operator, weaver, processing operator (CDR, BDR, Stentor), Bar-coding machine operator, Section/Direct warper, Sizer, Creel boy, Weaver, Knotter, Weft boy, Roll doffer, Mender, Tailors, Thiess operator, Hydro operator, Sharing stentor operator
Allied Skills	Electrician, Wireman, Fitter, Sizer
Skills with acute shortage	Due to high attrition in operator roles (semi skilled) because of extreme working conditions industry has high attrition in these roles.
Current status	Majority of labour is unskilled (5th pass) with complete training being done internally. The only textile related trades available at the ITIs are cutting and sewing. It is not possible to set up training machinery for such skills at the ITIs due to their high costs and fast changing pace. The industry is open to the prospect of strong industry institute interaction through training of instructors and students (apprentices) on the industry machinery.

- **Food Processing:**

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician, Food and Vegetable processor, Refrigeration mechanics, Welder, Machinist, Fruit and vegetable sorting, Corking machine operators and grating operators
Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOCP, Lab Attendant, Boiler Operator, QC Chemists
Skills with acute shortage	PPO is required in industries having in house packing development and Refrigeration mechanics
Current Status	The industry finds it difficult to find skilled fitters within the state. Some companies engage with the local ITIs to train employees hired as apprentices under the Apprenticeship Training Scheme (ATS).

- **Chemical & Chemical Products:**

Category of Skills	Skills
Core Skills	Mechanical, Electrical skills, Chemical tester, Mixer, Filler
Allied Skills	Instrumentation, Boiler attendant, AOCP, Lab. attendant
Skills with acute shortage	MSc/B.Sc chemists, Electronic Automation with the understanding of PLC systems
Current Status	Unskilled labour (10th and 12th pass) is majorly hired through walk-ins for packing and filling operations. On the job training needs to be provided as workers need to work with complex chemical processes. At present, no ITI in Himachal provides courses in the chemical sector. Centers of Excellence in Chemical are present in other states such as Ankleshwar in Gujarat; however, no hiring is presently done from these.

- **Electrical & Electronics:**

Category of Skills	Skills
Core Skills	Electronics, PPO, Electrical, Instrumentation, Welder, Turner, Refrigerator and AC operator
Allied Skills	Fitter, RAC
Skills with acute shortage	PPO trade is a key deficit in all industries involving plastic processing, Electronics and Instrumentation
Current status	The industry currently faces a huge problem with the employee attrition. As per the state government laws, 70% native work force needs to be maintained at all times, which makes the local manpower very complacent. The workers are perceived to be completely unskilled and require extensive on the job training. In many cases, the workers do not join even after the job is confirmed which a huge concern for a seasonal industry such as Air conditioner is manufacturing...

- **Drugs & Pharmaceuticals:**

Category of Skills	Skills
Core Skills	Process Operator, Packaging Operator, Process Technicians, Lab QC Technicians -Lab Technicians (Analytical), R&D Technicians, Pharmacist, Fitter, Mechanical Technician
Allied Skills	Electrician, Instrumentation
Skills with acute shortage	Bio-instrumentation, Pharmacist
Current Status	Currently, there is no course in the ITI's at Himachal to cater to the needs of the pharmaceutical industry. The industry needs students from engineering trades including fitter/electrician to also have basic knowledge about basic pharmacy concepts of micro-biology, hygiene and cleanliness requirements, bacterial contamination risks and pesticide management. Currently 12th pass or ITI diploma holders are hired and provided extensive training on the job with lower level critical operations, before being moved to the high risk jobs.

- **Hydel Power:**

Category of Skills	Skills
Core Skills	Mechanical, Electrical, Instrumentation& Control, Master Chemists, Civil Engineers, Road cutting, Mucking, Blasters, Heavy motor drivers
Allied Skills	Fitter, Electrician ITI trades, Auto electrician, Motor mechanic
Skills with acute shortage	Auto electricians, Heavy motor drivers
Current Status	Private ITI's like Jaypee in Kinnaur district is currently training the students on some of the above trades and is putting the students on job training in their own projects like Karcham Wangtoo and BASPA II.

- **Plastic tube manufacturing :**

Category of Skills	Skills
Core Skills	Electrician, Fitter, Box maker, Quality checker
Allied Skills	Plastic printing operator
Skills with acute shortage	Plastic printing operator

Current status	Unskilled labour (10th or 12th pass) is currently hired and trained on the job. The course is taught at some ITI's in Rajasthan. No ITI's in Himachal are currently teaching this course.

- **Garment manufacturing:**

Category of Skills	**Skills**
Core Skills	Pattern making, Cutting, Sewing, Quality check, Finishing, Merchandising
Allied Skills	Printing and Dying
Skills with acute shortage	Tailoring
Current status	The students from the cutting and sewing course at ITI were perceived to be uninterested in taking a serious job. The students from ITI had to be trained on the job. Most employees were hired from employment exchanges or referrals. Industrial training is provided to people from stitching centers at local NGOs. Qualification was considered irrelevant when hiring employees.

- **Construction:**

Category of Skills	**Skills**
Core Skills	Electricians, carpenters, bar benders, welders and masons
Allied Skills	Un-skilled workers for labour jobs
Skills with acute shortage	Machine operators
Current status	Supply of construction workers is not seen as much of a problem in Himachal Pradesh. The natives usually do not take up these jobs and hence people from Jharkhand, UP and Bihar are the ones who take these up.

- **Leather and allied :**

Category of Skills	**Skills**
Core Skills	Tees Lasting, Sole Supporting, Sheet and Side Lasting, Dunlop, Buffing & Wiping, Baffling, Stuffing, Cement Cleaning, Heel Lasting
Allied Skills	Leather embroidery, Skiving, Hand padding, Color preparation, Dip dying and drum dying
Skills with acute shortage	All
Current status	There are no trades in ITI catering to the needs of the shoe industry/leather accessories. Significant gap exist in the industry requirement and availability of skilled labour within state. There is a need for courses in ITI pertaining to the manufacturing of leather and leather based products. At present, unskilled labour (8th pass) is being hired and trained on the job

Services:

- **Banking & Financial Services:**

Category of Skills	**Skills**
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales & Marketing
Skills with acute shortage	Insurance underwriting, claims management

Current Status	The public sector is dominated mainly by the migrant population from Chandigarh, Punjab and other states who get transferred to banks across Himachal Pradesh. A limited skilled population is available in the state.

- **Transportation :**

Category of Skills	**Skills**
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning
Current status	HRTC hires students from MMV trades from across the ITI's in Himachal Pradesh. However, there is a dearth of drivers with heavy motor vehicle license and such courses are run as short term courses by only a few ITI's.

- **Healthcare :**

Category of Skills	**Skills**
Core Skills	MBBS Doctors, MD/MS specialists, Physician Assistants/Compounders, Radiologists, Dialysis technician, Respiratory technician and OT Assistants & Perfusionist.
Allied Skills	Lab technicians, pharmacists, physiotherapists, Lab
Skills with acute shortage	Physiotherapists, Biomedical Instrumentation technicians

- **Organized Retail:**

Category of Skills	**Skills**
Core Skills	Shop floor executives/supervisors, computer operator, Visual merchandisers
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, Retail merchandisers and SKU planners
Current status	A total of 100 pilot schools have been selected across Himachal Pradesh to implement the NVEQF program and the state has been assigned five trades out of which Retail is one of them. It is expected to train students for a career in Retail.

- **Education:**

Category of Skills	**Skills**
Core Skills	School teachers, higher education faculty
Allied Skills	Knowledge on advanced teaching tools
Skills with acute shortage	Technical education trainers
Current status	The faculty across technical institutes like the ITI's believes that regular training is essential to keep in tandem with the emerging needs of the industry. However, the faculty does not get enough opportunity for trainings and low entry salaries are leading to the shortage of technical education trainers.

- **Hospitality:**

Category of Skills	**Skills**
Core Skills	Front desk officers, Chefs, Stewards
Allied Skills	Event management, Sales and marketing, Electricians, Guides

Skills with acute shortage	Chefs, Stewards
Current status	The hospitality industry is seasonal in Himachal Pradesh with the season peaking around the months of May-August. During this period an inward immigration is noticed in districts like Kullu, Shimla, Kangra and Chamba. The staff is hired on temporary basis by small hotels and is released when the season is over. There are a few hotel management institutes in Solan which supply Hotel staff to some good hotels.

Primary Sector:

- **Cultivation:**

Category of Skills	**Skills**
Core Skills	Awareness about high yield varieties, micro nutrients and pest Control, Organic farming and Vermi compost methods, Micro irrigation techniques such as drip irrigation
Allied Skills	Knowledge on food processing techniques and related procedures to extract greater value from farm produce
Skills with acute shortage	Product marketing
Current status	There is no organized farming in the state. Land is inherited and generations continue to do the same work.

- **Agri- Allied Activities:**

Category of Skills	**Skills**
Core Skills	Modern rearing techniques of live stock, piggery, goatery and fisheries
Allied Skills	Knowledge on processing techniques
Skills with acute shortage	Marketing and distribution of forest/animal husbandry produce

8.2 Human Resource Development Scenario in Himachal Pradesh

In order to promote economic and industrial development in a state, an essential requirement is the capacity to develop skilled manpower of good quality in adequate number. Himachal Pradesh being primarily an agrarian economy is industrially backward except for districts like Sirmaur and Solan. Agriculture, horticulture and allied sector continue to be the mainstay of the people of the state as almost 70 percent of the population is dependent on it for their livelihood. However, the state has been striving to accelerate investment flow in the industrial sector and has been able to make significant progress in this field as well. In such a scenario, education would play a crucial role to develop professionally trained human resources to further augment the industrial development in the state. According to data available from Census 2011, the literacy rate of Himachal Pradesh at 83.78 percent is better than the national average of 74.04 percent. The government has been taking various steps to enhance the capacity and quality of education being provided to the people of the state.

8.2.1 School Education

The State has made remarkable progress in terms of literacy. While Kangra has the highest number of total enrollments across the various levels, Lahaul & Spiti had the lowest number of enrollments in the period of 2011-12. District wise details of school statistics are presented in the table[126].

Districts	Total Enrolments (2011-12)			
	Primary Level	**Upper Primary Level**	**Secondary/ Senior secondary Level**	**Total**
Bilaspur	19,200	14,800	21,100	55,100
Chamba	48,200	30,500	37,300	1,16,000
Hamirpur	18,800	15,300	37,000	71,100
Kangra	62,300	52,600	86,100	2,01,000
Kinnaur	5,100	3,300	3,100	11,500
Kullu	31,700	20,900	24,600	77,200
Lahaul & Spiti	1,900	1,100	1,500	4,500
Mandi	59,000	42,000	61,400	1,62,400
Shimla	48,100	30,000	62,800	1,40,900
Sirmaur	42,700	27,500	49,400	1,19,600
Solan	35,800	22,700	26,700	85,200
Una	29,600	20,200	29,300	79,100

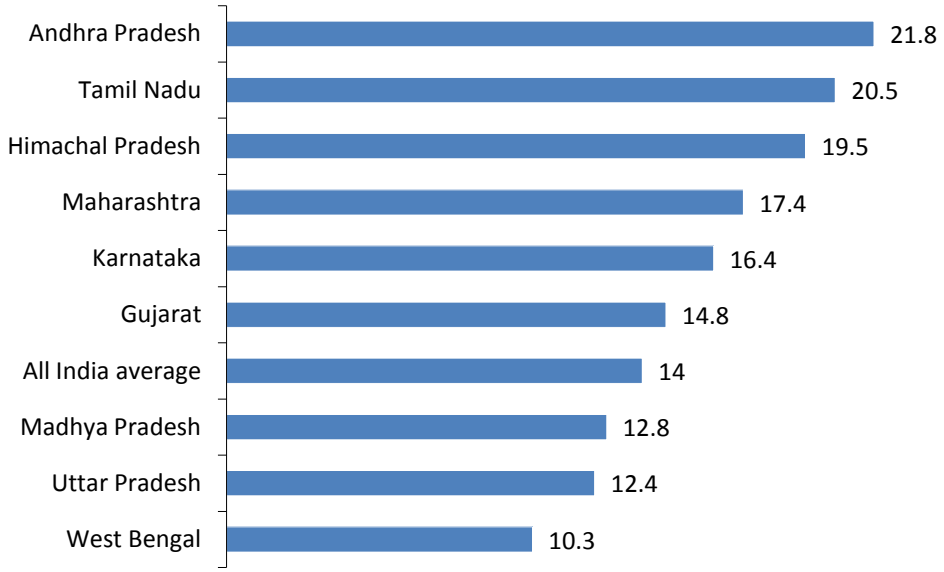
8.2.2 Higher and Technical Education

As of 2012, Himachal Pradesh has around 1.8 lacs students enrolled in higher education across streams. While Himachal Pradesh has a better penetration of higher education compared to national average, other progressive knowledge economies like Andhra Pradesh and Tamil Nadu have higher penetration than Himachal Pradesh. Comparison of Himachal Pradesh with other Indian states and national average is shown in the below chart.

Penetration of Higher Education in Key Indian States (Number of Enrollments per 1000 Population) [127]

[126] *Himachal Statistical handbook*

[127] *MHRD Statistics 2012*



In Himachal Pradesh the institutional framework consists of Universities established by an Act of Parliament (Central Universities) or of a State Legislature (State Universities), Deemed Universities (institutions which have been accorded the status of a university with authority to award their own degrees through central government notification), Institutes of National Importance (prestigious institutions awarded the said status by Parliament), and Institutions established by State Legislative Act and colleges affiliated with the University (both government-aided and unaided). Overview of educational institutions in Himachal Pradesh is presented in the table.

Category	Number of institutions
Universities, Research Institutes, Institutes of National Importance	7
Govt Colleges	123
Grant in Aid Colleges	21
Self financed institutions	286

Source: Department of Higher Education, Shimla

The Department of Technical Education, established in 1968, along with Vocational & Industrial Training is responsible for providing Technical Education & Vocational Training in the State at various levels. With the ongoing growth in the industrial sector in Himachal Pradesh, there has been a consistent demand of industry and service sector for semi skilled, skilled and highly skilled manpower. The Department is laying stress to open at least one ITI (industrial training institute)/ITC (industrial training centers) in each assembly constituency and one Polytechnic in each district. Other initiatives taken by the Department include opening of new ITIs, establishment of H.P Technical University at Hamirpur, starting of additional courses, tuition fee waiver scheme and Skill development allowance scheme etc.

Overview of technical education institutions in Himachal Pradesh is presented in the table[128].

Category of Institutions	Number of Institutions		Annual Intake capacity*	
	Government	Private	Government	Private

[128] *http://planningcommission.nic.in/reports/genrep/reginal_conf2/HP/hp_govt.pdf*

Engineering colleges	1	17	240	6,360
B.Pharmacy colleges	1	12	40	900
Polytechnic colleges	10	19	1,490	6,510
D.Pharmacy colleges	NA	1	NA	60
ITIs	74	118	14,878	12,697
Government ITIs for women	8	-	1,537	-

**As on 2011*

An amount of INR82.5 crores was earmarked by the Government of India for upgradation and modernization of 33 industrial training institutes in Public-Private Participation.[129] Apart from this, four new industrial training institutes have been opened at Tikkar in district Shimla, Sandhole and Bhadrota in district Mandi and Ghumarwin in Bilaspur district.[130] 175 scholarships to degree level students and 75 scholarships were given to bona-fide native students of diploma level in the year 2011-12.

8.2.3 Vocational Education

There is a growing need to develop the level of vocational and technical education being provided in the state to facilitate growth of the state economy. 104 vocational training providers have been registered under Skill Development Initiative Scheme at present, out of which 65 are government ITIs and remaining 39 are private. INR 3.9 crores has been spent so far out of the total fund availability of INR7.62 crores. A total of 15,384 candidates have been trained under this scheme while 2,230 are still under training.[131]

There has been an encouragement of private sector participation in technical and vocational education. With the introduction of new ITI/ITCs in the state, the total number of annual seats for vocational training is around 29,164.[132]

25 senior secondary schools of the state have an ongoing Vocational Education Programme in which 6 subjects are being taught- Electronics Technology, Computer Technique, Audit & Accountancy, Electrical, Horticulture and Food preservation. Apart from this, the Government aims to start vocational education in 75 senior secondary schools with four new courses, namely Automobile, Retail, Security and IT.[133]

8.2.4 Key Government Initiatives

Himachal Pradesh government has embarked various initiatives to augment capacity in higher and technical education along with improving quality of education and focusing on employability of youth. Engaging the private sector more actively in both formal and non formal modes of education is a key initiative considering the financial constraints for government expenditure on education. The key initiatives of the government to improve the quality and further development of higher education in Himachal Pradesh are as follows:

[129] *http://www.techeduhp.com/Download/Admn.2012.pdf*
[130] *http://www.phdcci.in/admin/userfiles/file/Research-Bureau/Himachal-Pradesh-State-Profile.pdf*
[131] *Himachal Economic survey 2012-13*
[132] *IBEF Himachal Pradesh 2013*
[133] *Himachal Economic survey 2012-13*

The state earmarked an amount of INR3, 419 crores[134] for education in 2012-13 to further strengthen the educational infrastructure. It also aims to provide free of cost laptops to students on merit basis. The Himachal Pradesh government earmarked an additional grant of INR13 crores in 2012-13 to HP University in order to promote higher education.[135] A number of scholarships/ stipends are being provided by the Central and State government to improve the educational status of the deprived section of the society.

Skill Development Allowance Scheme 2013 or "The Himachal Pradesh Payment of Skill Development Allowance to Educated Unemployed Persons Scheme, 2013":

A state funded scheme, it aims at providing allowance to educated and eligible unemployed Himachali persons for their Skill up-gradation. The scheme empowers the youth to choose the sector in which they would like to develop their skill, at the training institute of their choice. As a result, it may be possible for the youth to take up employment or self-employment in the sector of their choice, paving way for economic growth of the state. The allowance is payable to eligible persons in the 25-35 age groups. A budget allocation of INR100 crores has been made for the year 2013-14 by the state for this scheme. Under this scheme, an allowance of INR1, 500 per month for physically challenged and INR1, 000 per month for others is provided to the unemployed educated youth of Himachal Pradesh.

Technical Education Quality Improvement Program (TEQIP):

The centrally sponsored program was launched in December 2002 by the Ministry of Human Resource Development with the assistance of World Bank. It aims to upscale and support ongoing efforts in improving quality of technical education and enhancing existing capacities of the institutions to become dynamic, demand-driven, quality conscious, efficient and forward looking, responsive to rapid economic and technological developments occurring both at national and international levels.

The first phase of the program (March 2003-09) was implemented in 13 states covering 127 institutions. The institutes covered from Himachal Pradesh were Government Polytechnic College - Sundernagar, Hamirpur and Kandaghat. Himachal Pradesh was ranked as the highest performing state in terms of overall impact and second highest on key performance indicators as per the Impact Evaluation Report of TEQIP I. The project outlays of Phase I are as follows:

Institute	Total allocation	Funds released	Total expenditure
Govt. Polytechnic College, Sundernagar	227.5	227.5	22.985
Govt. Polytechnic College, Kandaghat(W)	216.8	216.8	216.32
Govt. Polytechnic College, Hamirpur	220.2	220.2	215.58
State Project Facilitation Unit	59.7	59.58	54.63
Total	724.2	724.08	509.515

(All figures are in INR lakhs)

In the second phase of the programme (TEQIP-II), Jawahar Lal Nehru, Government Engineering College, Sundernagar has been selected and a grant amount of INR12.25 crores has been sanctioned for strengthening of physical infrastructure facilities of the college.[136]

Skill Development Initiative Scheme (SDIS):

[134] *http://www.phdcci.in/admin/userfiles/file/Research-Bureau/Himachal-Pradesh-State-Profile.pdf*
[135] *http://www.phdcci.in/admin/userfiles/file/Research-Bureau/Himachal-Pradesh-State-Profile.pdf*
[136] *Himachal Economic survey 2012-13*

The Scheme aims to provide vocational training to school leavers, existing workers, ITI graduates etc. in order to improve their employability. Skill Development Initiative on Modular Employable Skill (MES) has been developed in close consultancy with Industry, State Governments & Experts in pursuance of excellence in vocational training. MES allows skills upgradation/formation, multi entry and exits, vertical and horizontal mobility and lifelong learning opportunities in a flexible manner and allows recognization of prior learning. It is targeted at workers seeking skill up-gradation or certification of skills acquired informally and unemployed youth.

In Himachal Pradesh, 104 vocational training providers (VTPs) have been registered at present under Skill Development Initiative Scheme.[137] 15,384 candidates have been trained under this scheme already, while 2,230 are still under training. INR3.9 crores has been spent by the state out of the total of INR7.62 received.[138]

Up-gradation of ITIs into Centre of Excellence:

A centrally sponsored scheme, it involves up-gradation of 100 ITIs into Centre of Excellence in the first phase in 2005-06 through domestic resources and subsequent 400 ITIs through World Bank assistance. At present, 14 ITIs in Solan, Una, Rampur, Shamshi, Mandi, Chamba, Shahpur, Nadaun, Nahan, Shimla, Reckongpeo, ITI (W), Mandi, ITI (W), Shimla and ITI Rong Tong (Kaza) have been upgraded as Centers of Excellence. The Central government has provided an amount of INR2, 722 lakhs for providing modern machinery and equipments, honorarium/ remuneration and training to teachers and also for construction of building etc. in Himachal Pradesh.[139]

Apart from this, 33 ITIs in Himachal Pradesh have been upgraded under Public Partnership Mode (PPP Mode) after due consultation/discussion with the State Steering Committee and with PHD Chamber of Commerce and CII and various other Industrial Associations located in different parts of Himachal Pradesh. The government of India has provided central assistance of INR82.50 crores to the respective ITIs.[140]

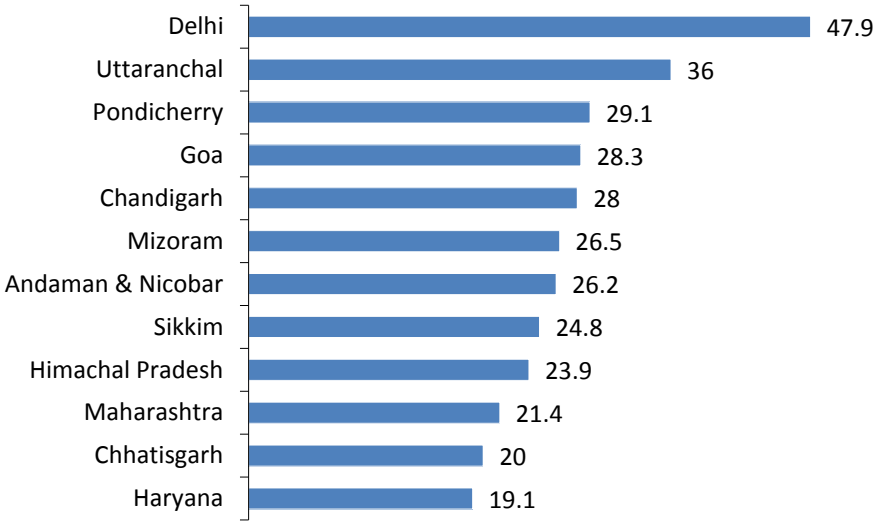
8.2.5 Challenges in the Current Education System

Demand-Supply Gap:

India has witnessed an ever increasing need to expand higher education facilities, more specifically in Himachal Pradesh which has emerged as a leading state in educational literacy due to the successful implementation of universal education programs at school level. Although it has been observed that Himachal Pradesh underwent a "schooling revolution" in the 1961-2001 period which was even more impressive than Kerala's, gaps in the educational system continued to exist. Capacity gaps along with affordability are key reasons for drop outs.

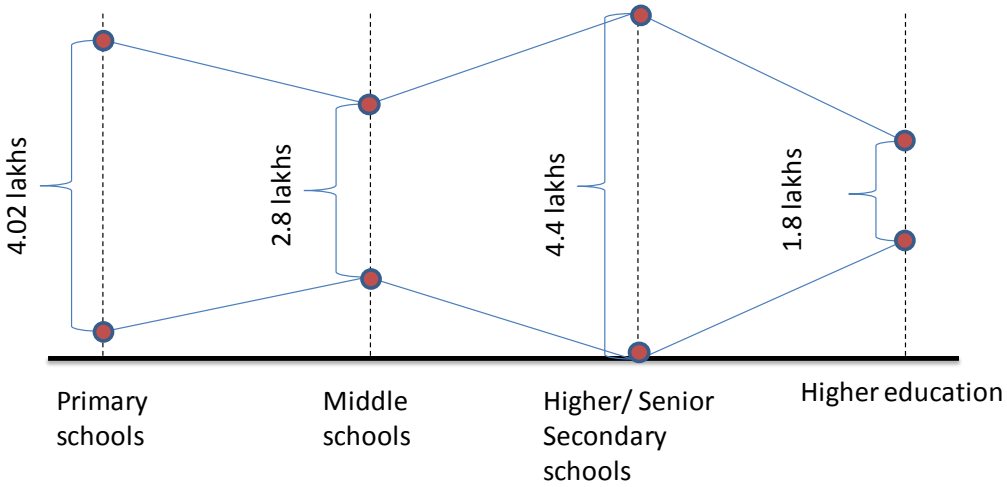
According to 2009-10 data, the GER of Himachal Pradesh at 23.9 percent is higher than the national average of around 17.9 percent for the same period.[141] In comparison to the rest of the states also, states like Delhi, Uttaranchal and Pondicherry etc. have higher GER than Himachal Pradesh indicating that Himachal Pradesh has a long way to go in this field. Himachal Pradesh's GER in comparison to a few other states is depicted in the graph below[142]:

[137] *Himachal Economic survey 2012-13*
[138] *Himachal Economic survey 2012-13*
[139] *Himachal Economic survey 2012-13*
[140] *Himachal Economic survey 2012-13*
[141] *http://eduvisors.com/dwnld_assets/PDF/Summary_Report_-_Planning_Commission,_CII_and_Eduvisors_Report_on_Annual_Status_of_Higher_Education_in_India_(ASHE),_20122.pdf*
[142] *http://eduvisors.com/dwnld_assets/PDF/Summary_Report_-_Planning_Commission,_CII_and_Eduvisors_Report_on_Annual_Status_of_Higher_Education_in_India_(ASHE),_20122.pdf*



A view of current enrollment status across levels of education would provide a picture of emerging capacity gaps over the next decade or so. Primary enrollments (I- V) for the year 2010-11 in Himachal Pradesh standing at 4.2 lakhs[143] would indicate that in the next decade when this age group moves into higher education category there would be only opportunities for 1.8 lakhs students. This is a serious concern faced by majority of the states in India. Considering the need to create trained manpower for growing industries and to develop Himachal Pradesh into a knowledge economy significant capacity expansion is required in higher education. On conservative estimates if the GER targets for India (30% by the end of 12th plan period 2012-17) have to be matched current education infrastructure in the state has to be nearly doubled by 2017.

Enrollments in Himachal Pradesh across Education Levels (2011-12) [144]



Low Penetration of Vocational Education:

[143] *Education Department.Govt.of Himachal Pradesh*
[144] *Himachal Statistical handbook*

Vocational education which can play the role of bridging the gap in educational system needs significant growth in the state in order to match the standards of some leading countries with focus on vocationalising the education like Germany, Singapore and China. While the rest of India being primarily driven by service based industries has limited scope for vocational education, Himachal Pradesh being on its path to industrial development has to lay enough emphasis on improving the vocational education infrastructure to pave way for stronger economic growth. An encouraging step for the same is the launch of NVEQF scheme in the state

Regional imbalances in Capacities:

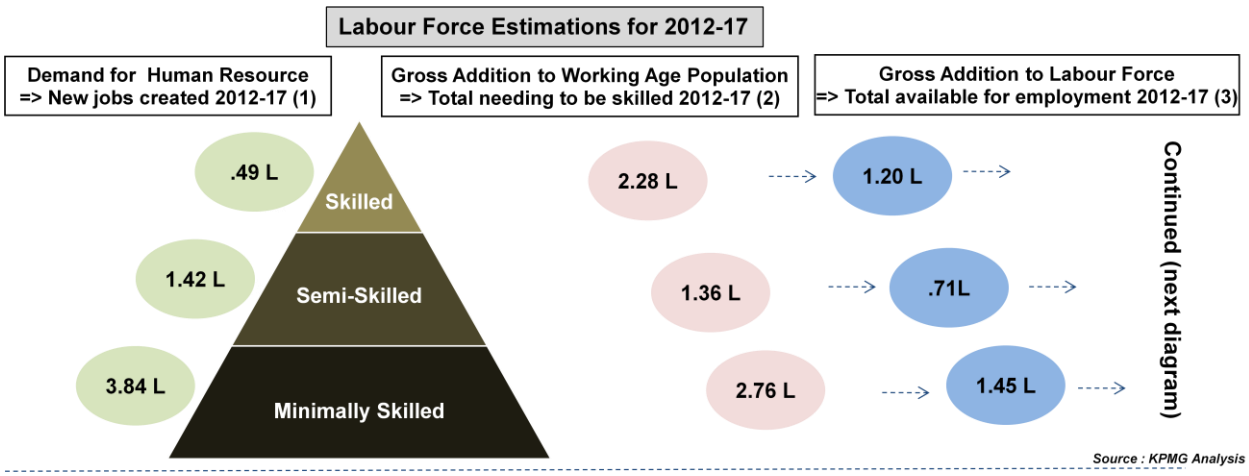
Like the other states of India, concerns of inclusion across regions are primary to the expansion of education and training in Himachal Pradesh. It has been observed that historically, private institutions have focused on urban regions while in rural areas it is predominantly Government led education system. Low affordability for private education in rural areas is the key reason for limited interest from private players. Government policies on capacity creation have been traditionally based on population prorate basis in a region. There are limited capacities across rural areas leading to fewer students graduating from rural areas due to either non-enrolment in higher education or high drop-out rate at the school level. With increased focus on health and education inputs, it is likely that different regions and different states converge in terms of their achievements in income and human development.

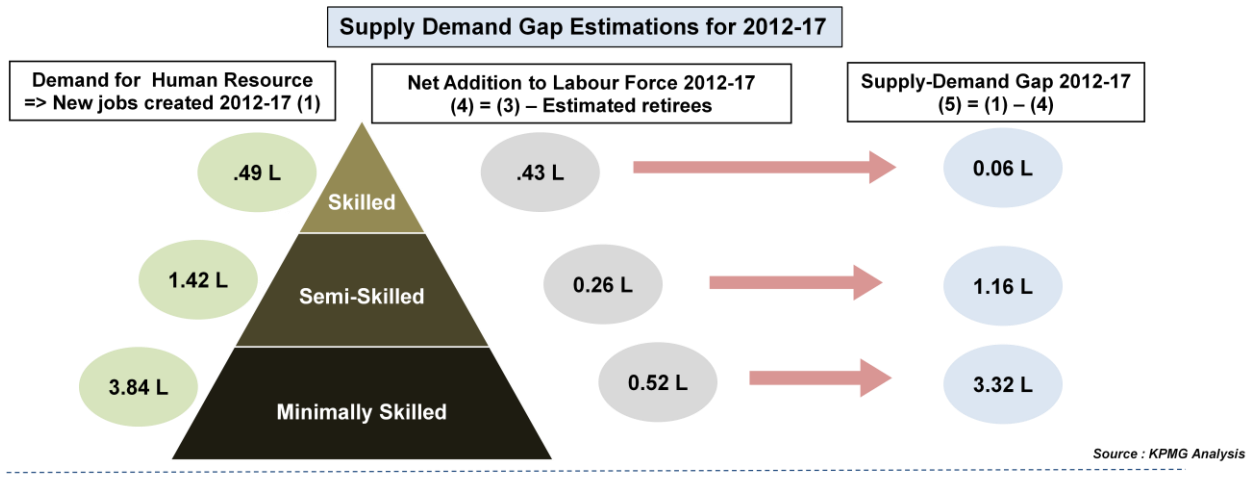
A quick comparison of literacy rates of the various districts of Himachal Pradesh indicates that while on one hand districts like Hamirpur, Una, Bilaspur and Solan have literacy rates above 85 percent; on the other hand, Chamba and Lahaul & Spiti have literacy rates of 73.19 and 77.24 percent respectively.[145] Further, there is an imbalance that exists even between the male-female literacy within the districts, the female literacy rates being lower than the male literacy rates in each of the 12 districts of the state.

8.3 Himachal Pradesh Supply Demand Gap estimations 2012-17

Demand supply gap based on assessment of existing training infrastructure in comparison to human resource demand provides opportunities for drafting and implementing suitable skill development strategy for a state. While the approach can be used for estimating the needs of a decade, considering the possibility of changes in training infrastructure and employment prospects, current study has analyzed the demand supply gap for a five year term. Estimation of demand supply gap over XII plan period indicates the significance of Himachal Pradesh as an employment hub for the workforce in semi skilled category considering the high level of industrial growth to provide employment opportunities to the semi skilled workforce. Human resource surplus is observed in skilled category considering the current level of industrial growth. However, future state of industrial development could potentially change the scenario. Considering the limitations to the inclusiveness of informal and unorganized sector employment un-skilled segment would be a human resource deficit category with potential opportunities for migration from other states. For the XII plan period, state needs to focus on improving the current state of training infrastructure for semi skilled workers both in formal and informal segments along with undertaking suitable measures to promote entrepreneurship among skilled workers considering the surplus scenario in the segment.

[145] *Census 2011 Data, Government of India*

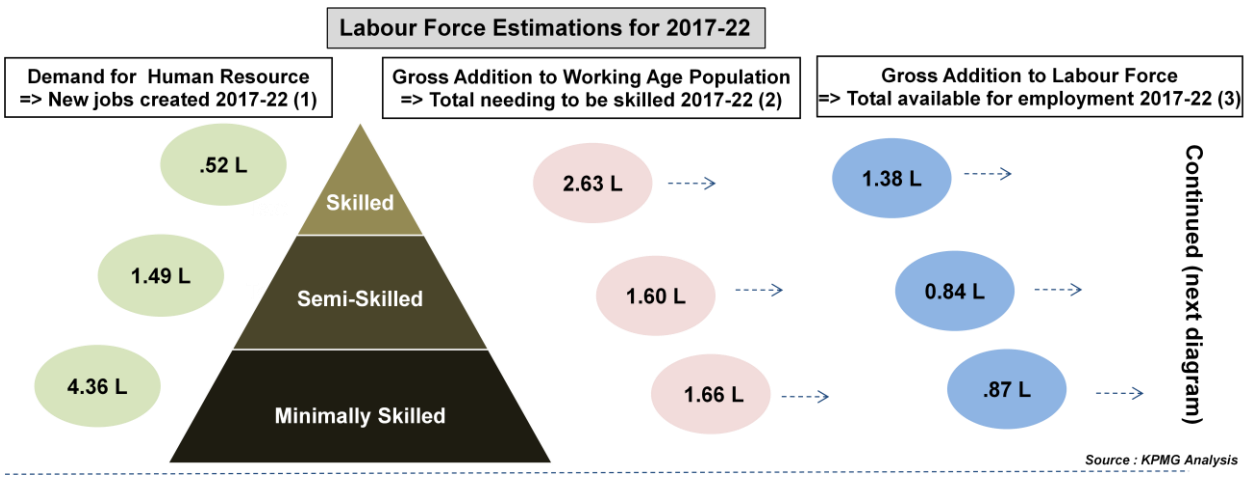


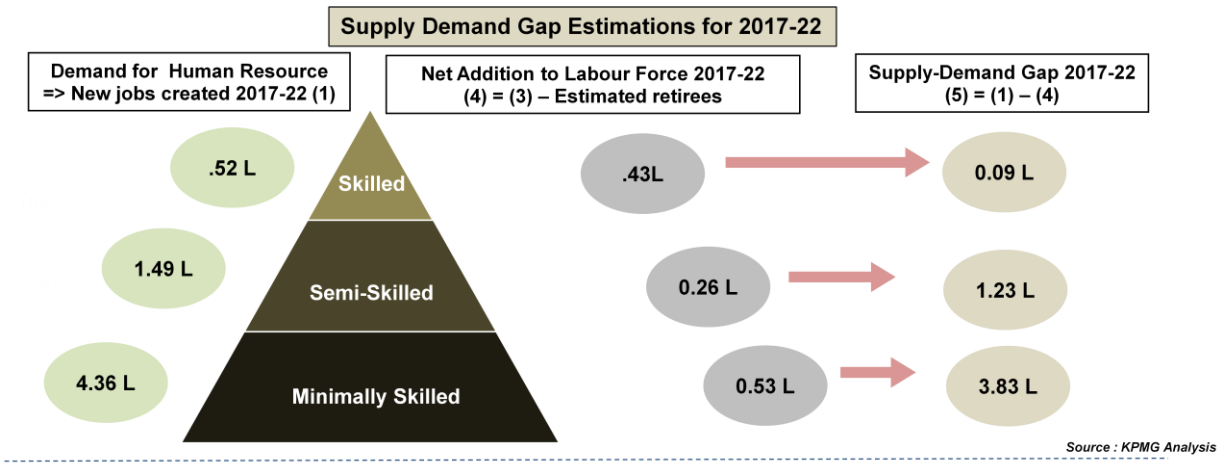


4. **Net Addition to Labour Force**: Gross Addition to Labour Force minus retirees – i.e. net new labour force available to meet new human resource demand arising from sectoral growth

5. **Supply of Human Resource:** Difference between Demand for Human Resource (1) and Net Addition to Labour Force (4)

Himachal Pradesh Human Resource Supply-Demand Gap Estimations for 2017-22





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5. **Supply of Human Resource:** Difference between Demand for Human Resource (1) and Net Addition to Labour Force (4)

District level variations in Demand-Supply gap indicate the need for geography specific initiatives to address the skilling issues. Category wise Demand-Supply gap estimations for the districts of Himachal are presented in the table below.

District Wise Supply- Demand Gap in Himachal Pradesh (2012-22)								
	2012-17				2017-22			
Region	Skilled	Semi Skilled	Minimally skilled	Total	Skilled	Semi Skilled	Minimally skilled	Total
Himachal	**43,476**	**26,005**	**52,513**	**121,994**	**43,942**	**26,284**	**53,077**	**123,304**
Bilaspur	1548	2093	3161	6802	1564	2116	3195	6875
Chamba	1169	931	7295	9395	1182	941	7373	9496
Hamirpur	4339	3095	939	8373	4385	3128	950	8463
Kangra	7656	3693	12661	24010	7738	3732	12797	24268
Kinnaur	104	348	1496	1949	105	352	1512	1970
Kullu	1522	3043	4261	8826	1538	3075	4307	8920
Lahaul and Spiti	13	224	623	860	13	226	630	869
Mandi	5130	2249	11140	18519	5185	2274	11259	18718
Shimla	9969	2652	2471	15093	10076	2681	2498	15255
Sirmaur	1922	2275	5011	9208	1942	2300	5064	9307
Solan	7008	3173	558	10739	7084	3207	564	10855
Una	3074	2205	2942	8221	3107	2229	2973	8309

8.4 Skill Training through Government Endowments

Skill development is one of the national priorities for the 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 (done by Ministry of Labour and Employment, Ministry of Higher Education etc) or by providing per-trainee costs of training for specific target populations (Ministry of Rural Development, Ministry of Minority Affairs etc). While some schemes target

state level training mandates on a population prorate basis others would be linked to sectoral development of respective ministries. Detailed summary of key Government schemes with training mandate is presented in the table[146].

Department/Ministry	Estimated Potential Training estimations in Himachal Pradesh (2012-17)
Ministry of Agriculture	161846
Ministry of Labour and employment	27992
Ministry of Rural development	19956
Construction Industry development council	18475
HRD	14532
MSME	12058
Social Justice	4267
Urban development	3290
Women and Child development	3034
Textiles	2458
Chemicals and Fertilizers	1946
Tourism	1851
Home affairs	1642
Road Transport	1523
Food Processing	34

8.5 Youth Aspirations in Himachal Pradesh

Having estimated the skill 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.

General characteristics of the sample surveyed: Nearly 1000 youth were interviewed across the state. They consisted of students from the ITI's, Polytechnics, Engineering colleges and RSETI. Few students were also surveyed from other institutes such as Atal Bihari Institute of mountaineering & Allied Sports, Polytechnic in Shimla, Engineering students and IISD (training partner of NSDC in Himachal Pradesh). A mix of students including an equal number of male and female participants was taken wherever possible across the courses. The courses in the ITI's were divided across the following heads and a random sample was picked from the below

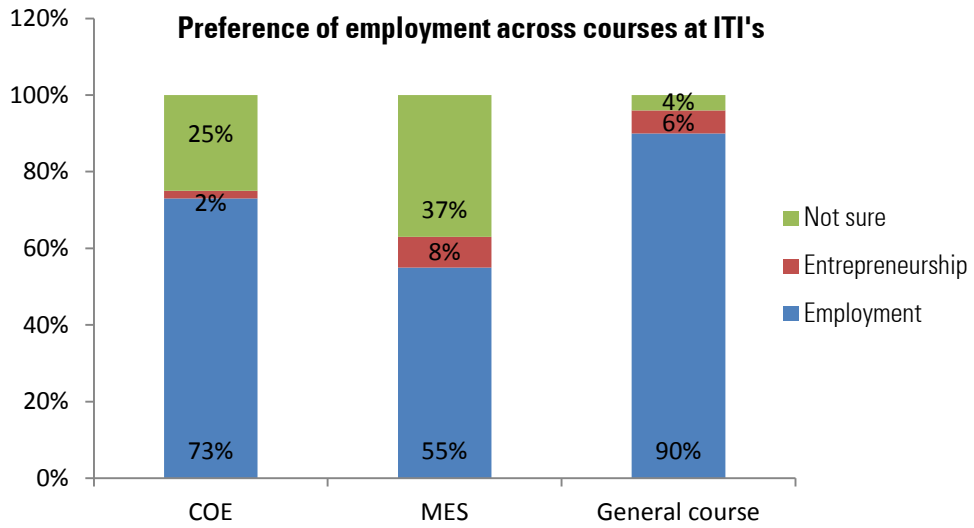
- General courses (like Electrician, Fitter, Turner, COPA etc)
- COE courses (like COE-Electrical, COE-IT, COE-Auto etc.)
- MES courses

A number of telephonic interviews were also conducted across districts like Kullu, Kinnaur and Shimla and the findings were recorded. In terms of Socio-economic profile almost 60 percent of the students come from lower middle class background with the earning member income range between INR 9,000-INR 15,000. 20 percent of all youth were from a relatively weaker background. The parents of these were employed as agricultural labours or doing other odd jobs. The rest 20 percent is high income group with an income of 5 lacs and above per year. These youth were mainly found in

[146] *KPMG estimates*

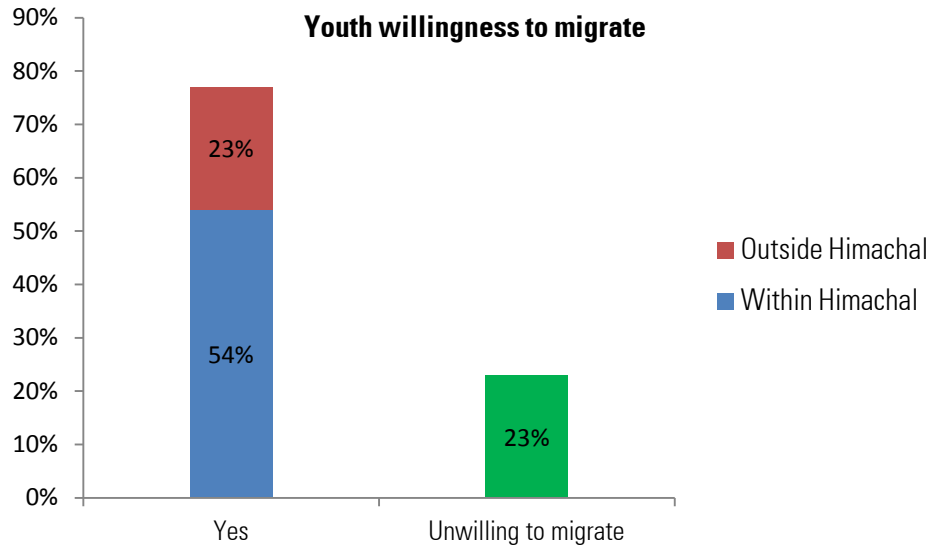
Kinnaur, Kullu and Shimla. The family of most of these students own Apple orchards and have a significant income from the same.

Preference for Employment Vs Entrepreneurship: Several factors such as entry level salaries, work environment, job location, and socio-cultural factors, seem to influence youth preferences towards employment. While certain communities such as the youth from Kinnaur, Lahaul and Spiti have established preferences for entrepreneurship in agriculture and horticulture, the youth in the other districts such as Sirmaur, Una, Solan and Kangra have a preference towards employment. The low entry level salary in industries is another key factor influencing youth preference.



Certain percentage of youth across the courses was not sure of their career prospects. These candidates were mainly from the COE and MES courses. They identified reasons like non acceptability of MES courses in the industry, Conflict between the general and specialized trades in case of COE, examination patterns of COE and MES courses and no career counseling.

Migration: Migration is linked to socio-regional factors in Himachal Pradesh. Youth on paid seats is willing to migrate as they are usually from the other districts, so does not see it as much of a problem. Youth from Sirmaur, Una, Kangra, and Chamba are willing to migrate to Solan for better employment prospects. Students in the regions like Bilaspur and Hamirpur do not have problem to even move to states like Punjab and Haryana for jobs. While industrial belts in Solan and Sirmaur have potential to absorb and employ migrants, it was often noted by the industries that students from the upper hills were not able to cope up with the weather conditions of low hill areas/



Choice of Education and Training Stream: Economic background of an individual is one of the key factors influencing the program chosen for study. Along with economic background awareness level about the programs typically acquired through family members/seniors is another major influencing parameter. Students from weaker sections of the society, both economically and socially, prefer vocational courses over higher education programs. Vocational streams are considered as strenuous especially in mechanical sector which is not preferred by girls considering the nature of employment involved in these sectors.

Significant influence by peers and family in career decisions: Students doing ITI certificates were significantly influenced by their peer circle and family members, in their preference for courses. Often, when students did not find any other options, they considered ITI as the last option.

Preference for government jobs over private: Youth seem to show higher inclination for jobs in Govt/Govt Undertaking Sectors like PWD, Electricity board or any other administrative job. According to the youth in the state, the government jobs provided security and entailed less rigour.

Awareness of career opportunities: Students do not get much counseling on the job prospects and or possible options on starting their own business. The lack of finance opportunities, bank knowledge and support is often seen as a hindrance in accelerating their career.

Sectoral Preference for Employment: Based on interactions with youth on a sample study across the districts of Himachal Pradesh, sectors taken for manpower estimations were classified as high, medium and low aspiration categories based on their preference to work. Regional considerations along with work place environment and salaries have significant influence on preferences for sectors. Summary of sector-wise preferences from youth across the state are presented in the table[147].

Sector	Aspiration To work	Sample Characteristics
Primary Sector		

[147] *FGDs in Himachal Pradesh, KPMG Analysis*

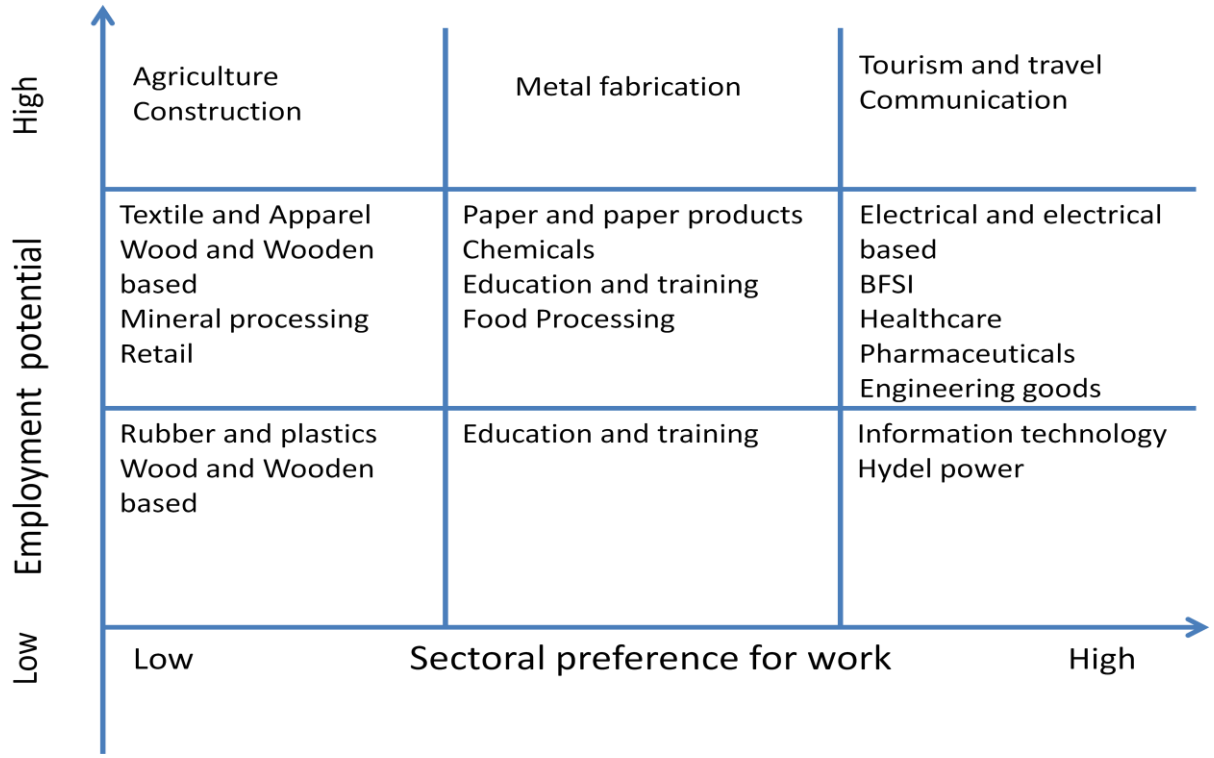
Cultivation (including Horticulture)	Low	Farming communities/ Un Skilled Youth
Allied Activities	Medium	Farming communities/ Un Skilled Youth
Secondary Sector		
Agro & Food Processing	Medium	Vocational Training Students
Textile & Apparel	Low	Vocational Training Students
Wooden Products & Furniture	Low	Vocational Training Students
Paper & Paper Products	Medium	Vocational Training Students
Chemical & Chemical Products	Medium	Vocational Training Students
Rubber & Plastics	Low	Vocational Training Students
Mineral Processing & Fabrication	Low	Vocational Training Students
Electrical & Electronics	High	Vocational Training Students
Manufacturing of Engineering Goods	High	Vocational Training Students
Manufacturing of Construction Material	Low	Vocational Training Students
Drugs and Pharmaceuticals	High	General Youth
Construction	Low	General Youth
Energy (including Hydel power)	High	General Youth and Vocational Training Students
Services Sector		
Trade, Retail	Low	General Youth
Transportation & Logistics	Medium	General Youth
IT-ITES	High	General Youth
Hospitality & Tourism	High	General Youth
Banking & Financial Services	High	General Youth
Healthcare	High	General Youth
Education & Training	Medium	General Youth

Skill Development Attractiveness Matrix for the State:

Skill Development matrix based on incremental employment potential in a sector mapped against preferences of skilled youth for a career in the respective sectors provides opportunities for implementing sector level skill development initiatives. Skill Development Matrix for Himachal Pradesh indicates a clear mismatch between student aspiration and job demand available in the state. Sectors such as Retail, Security, Textile and Construction 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 Pharmaceuticals, Tourism and Energy (including Hydel power) have high employee work preference. Stakeholders in skill development & training need to consider the youth aspirations while drafting policies/strategies. Skill Development Matrix for the state is presented below.

Skill Development Matrix for Himachal Pradesh[148]



[148] *KPMG Analysis through Focused group discussions and industry surveys*

9 Institutional Recommendations for Skill Development in the State

9.1 Recommendations for the Government of Himachal Pradesh

1. Setting up of State level Anchor Institute 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 Pharma (Solan), Tourism (Kullu, Shimla), Adventure sports (Kullu, Kangra), Hydel Power (Kinnaur, Chamba).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

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

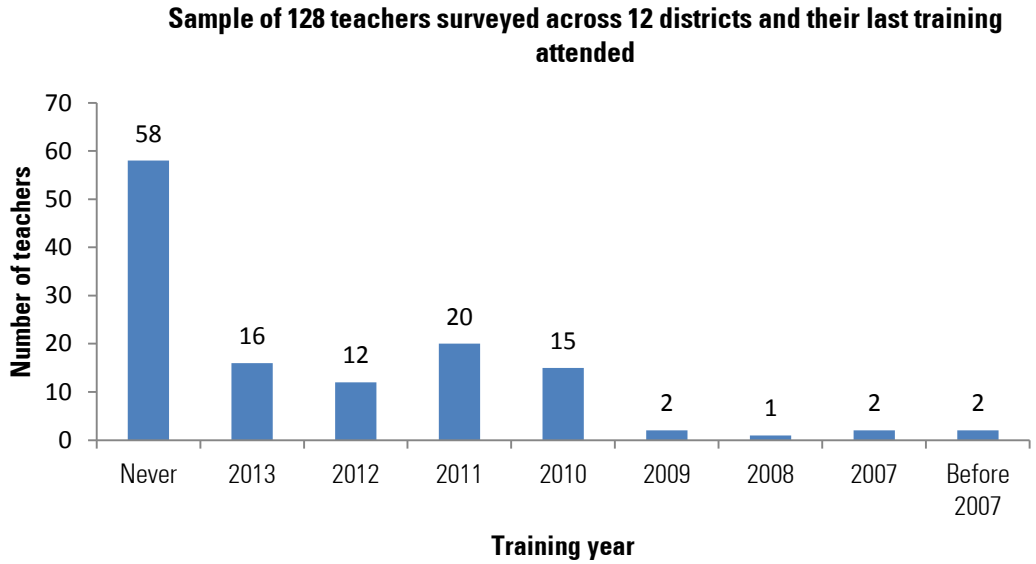
Review of the Scheme:

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

2. Teacher training frequency and endeavors to up skill within the state

Teachers across all districts in Himachal Pradesh appreciate that up skilling through regular trainings is absolutely essential to keep in tandem with the growing needs of the industry. However, the frequency of trainings for all the teachers is noted to be very intermittent. Out of 128 Instructors interviewed across all the districts of Himachal Pradesh 45 percent never attended any training where as only 12 percent attended trainings in 2013.



The situation of training across Instructors in the districts like "Kinnaur" and Lahaul & Spiti was noted to be all the more infrequent due to harsh weather conditions for almost half part of the year. The current model for teacher training across Himachal Pradesh is limited to the ATI's present across different states in India. The training time for a teacher travelling to an ATI in Southern India is at least 2 weeks which also results in the loss of classes for students. The time and money spent during these trainings can be saved if a "training centre" could be opened within the State. This could be similar to the "tool room" model in PPP mode planned to be established in "Baddi". In the PPP mode the Centre may give a onetime "grant-in" aid of 90 percent and the State may provide the Land whereas Industry may work in partnership through providing the balance 10 percent and consultancy.

3. Setting up of "Himachal Pradesh Education and Employment Mission"

The mission will aim to develop inclusive and productive workforce by building employable skills in youth and ensuring placement of the trained individuals. The initiative will focus on mobilizing, training and employment of youth on mission mode. The mission would adopt a 5 phase approach to achieving its target of training and employing the youth of the state

Phase 1: Creating a Labour Market Information System: The state should establish a mechanism to capture and digitize data on qualifications and aspirations of unemployed youth in Himachal Pradesh. Identification of unemployed youth should be done systematically by a household survey carried out by trained community members. Data from district/state employment exchanges can also be used, subject to the relevance and accuracy of information available.

Phase 2: Creating a Workforce Information System: The state should create a web-enabled mechanism to capture employment vacancy information from private industries in the state. The system should record details of skills required

for the particular job role along with the number of vacancies present. In the long run, this would lead to a rich repository of skill requirement at the district/state level. Subsequently, based on market study coupled with information fed by private industries, sectors with high employment potential would be identified for manpower supply.

Phase 3: Ensuring Participation from Private Industries: The state should incentivise private players to proactively participate in sharing information on employment opportunities in their organization. Further, as an initial one-time activity key skill set required in the organization should be captured as part of the Industrial Entrepreneurship Memorandum filing process and be linked with the Workforce Information System.

Phase 4: Training youth based on Industry Requirements: The youth from the database will be identified after mapping their aspirations and qualification with the eligibility set by industry. This should be followed by counselling and admission of youth in the mission's training centres. The youth would be trained for short term period before being interviewed and placed in the private industries.

Phase 5: Provide Post Employment Support Service: The mission should also have provision to support the employed candidate in terms of facilitating accommodation search, opening savings bank accounts etc

The Mission should be led by an with mandate in training and employment, with support from the Department of Labour & Employment, Department of Industries, Department of Technical and Higher Education, Department of Rural Development Agency and Department of Urban Development Agency and other departments with training mandates.

4. Decentralizing Skill Development Mandate through District Skill Development Chapters

Skill development mandate of the state should be decentralized up to district level for efficient support and monitoring purposes. District Skill Chapters (DSC) should be set up with representation from-Local Industry Bodies, Department of Industries, Department of Labour & Employment, Department of Agriculture, Department of School Education, Department of Higher Education, Department of Rural Development Agency, Department of Urban Development Agency and Private Skill Training Providers

- Assign district level targets for skill development in the state of Himachal Pradesh
- DSCs would undertake following activities through periodic meetings
    - Review and monitor the state of skill development
    - Promote industry institute interaction
    - Promote awareness about the benefits of skill supply chain among industries
    - Identify new areas of skill requirement in the district
- Recommend action points for various stakeholders to be submitted to respective departments/organizations for further action

5. Technology enabled Faculty Development Model

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

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 technology 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 offered on a similar platform

- Would undertake work related to development of teaching methodologies, pedagogy and content on upcoming topics 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 will be broadcast through VSAT or other suitable technology, to regional training centres where faculty from neighbouring regions will participate. The training sessions would simulate a live environment with multi-user discussions

9.2 Recommendations for the Industry

1. Playing an active role in establishing the Sector skill councils

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 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

2. Ensuring that hiring in any sector is as per the established National Occupation standards

National occupation standards describe the competencies required by an individual to carry out particular job function relating to their job role to a specified industry benchmark. Several sector skill councils under the aegis of NSDC have already started developing Occupation standards for the job roles in the industry. The pioneer ones are standards related to the Rubber Industry, Telecom, Security and Healthcare. The NOS can also be used in many different ways such as

- A benchmark against which companies can compare their internal practices and procedures
- A basis for developing training programs
- Assessing skills already in the workforce and highlighting any gaps
- Identifying the competencies which bring together the skills, knowledge and understanding necessary to do the work
- Acting as benchmark for rewarding experience, knowledge and competence
- Developing or refining performance appraisal systems
- To form the basis for a job description

3. 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. Such courses could be offered in an existing educational institution, or can be offered in an infrastructure shared by the district administration.

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 Himachal Pradesh

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 Himachal Pradesh. 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%

9.3 Recommendations for NSDC

1. NSDC should provide support towards training manpower in the following priority sectors of Himachal Pradesh. Priority sectors have been identified based on government thrust, availability of support infrastructure, traditional presence of relevant industrial activity and private sector involvement in the industry in the state
    - Pharmaceuticals, Hydel power, Food Processing, Tourism, Horticulture, Engineering Goods, Handicrafts, IT-ITES, Silk and Silk products, Bee farming along with Wood and wooden based industries
    - Respective sector skill councils could play an active role in promoting skills relevant above sectors in the state
2. NSDC could play an active role in bringing national/global level training providers to Himachal Pradesh by setting up a joint forum of NSDC Investee Training Companies, NSDC partner Training companies and representatives of Government of Himachal Pradesh
3. NSDC Sector Skills Councils would need to conduct detailed skill deficit study for priority sectors in Himachal Pradesh and develop a roadmap for skill development in respective sectors in the state
4. NSDC may also consider commencing the Sector skill council for Pharma as it is a high growth sector. Market reports suggest that the industry shall be USD 55 billion by 2020 growing at a CAGR of 15.5 percent since 2009[149].

9.4 Recommendations for Training Organizations

1. Focus on high growth/ aspiration sectors where student acquisition is easier –Construction, Communication, BFSI and Tourism
2. Create capacities in districts with lower penetration of training infrastructure – Chamba, Shimla, Sirmaur, Kangra and Mandi. Districts where low penetration of training infra is coupled with high industry growth, are high potential for future growth of skilling
3. Explore scheme-based training potential to address the skilling needs of under privileged/BPL population - key schemes with high training potential are SGSY, Construction and Agriculture)
4. Emphasize offering accredited programs (SSC certifications) to ensure industry acceptance for certifications
5. Build industry linkages in areas of development and delivery of training programs- placements, curriculum formulation, apprenticeships, faculty training

[149] MC Kinsey, India Pharma 2020, Propelling access and acceptance, realizing true potential

7.1 Skill Gap Study of District of Bilaspur

7.1.1 Administrative profile

Bilaspur is a town and the headquarters of Bilaspur district. It is surrounded by Una district in the west, Solan district in the south, Mandi district in the East and Hamirpur district to the north.

Bilaspur is the second smallest district of Himachal Pradesh in terms of geographical area only after Hamirpur. The area of district is 1,167 sq km, which accounts for 2 percent of the total share of state area[150].

Administratively, the district has been divided into two sub divisions (Sadar and Ghumarwin); four tehsils (Sadar, Ghumarwin, Jhandutta, and Sri Naina Devi) and three blocks (Sadar, Ghumarwin and Jhandutta)[151].

7.1.2 Social Profile

7.1.2.1 Demographics

As per Census 2011 estimates, Bilaspur district has a population of around 3.82 lacs[152], contributing to 5.5 percent of total population. The district population has grown at a decadal growth rate of 12.01 percent in the period of 2001-11[153].

The population density of 327 people per sq. km[154] is much higher than the state average density of 123 per s.km. The high concentration of population in the district can be attributed to the fact that the district shares its border with the low lying areas of Punjab and the good road connectivity with the other districts.

Adult gender ratio of Bilaspur district has decreased from 990 females per 1000 males[155] in 2001, to 981 females per 1000 males[156] in 2011. However, there has been an increase in the child (0-6 age group) gender ratio from 882 females per 1000 males[157] in 2001 to 893 females per 1000 males[158] in the same period. Bilaspur has a reserved caste population of 25.4 percent[159] which is marginally higher as compared to 24.72 percent for Himachal Pradesh as per Census 2001.

7.1.2.2 Literacy

The district has a higher literacy rate of 85.67 percent[160] as compared to the state's average of 83.78 percent[161] . The higher rate of literacy in the district can be accounted to economic growth and political importance which has, attracted significant private and public participation in the school segment. Further, the gender disparity in education attainment levels is also prominent with a low female literacy rate of 78.90 percent when compared to the male literacy rate of 92.39 percent[162].

[150] *Himachal statistical handbook*
[151] *hpbilaspur.nic.in*
[152] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[153] *http://www.census2011.co.in/census/district/236-bilaspur.html*
[154] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[155] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[156] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[157] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[158] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[159] *Himachal statistical handbook*
[160] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[161] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[162] *Himachal Statistical handbook*

There are 848[163] schools in the district, out of which 81.84 percent are located in Jhandutta and Bilaspur Sadar alone. Some of the known private schools in the district are DAV and Jaypee Vidya Mandir . As per 2011 estimates, the drop-out percentage in both primary and upper primary level is far lower than the state average.

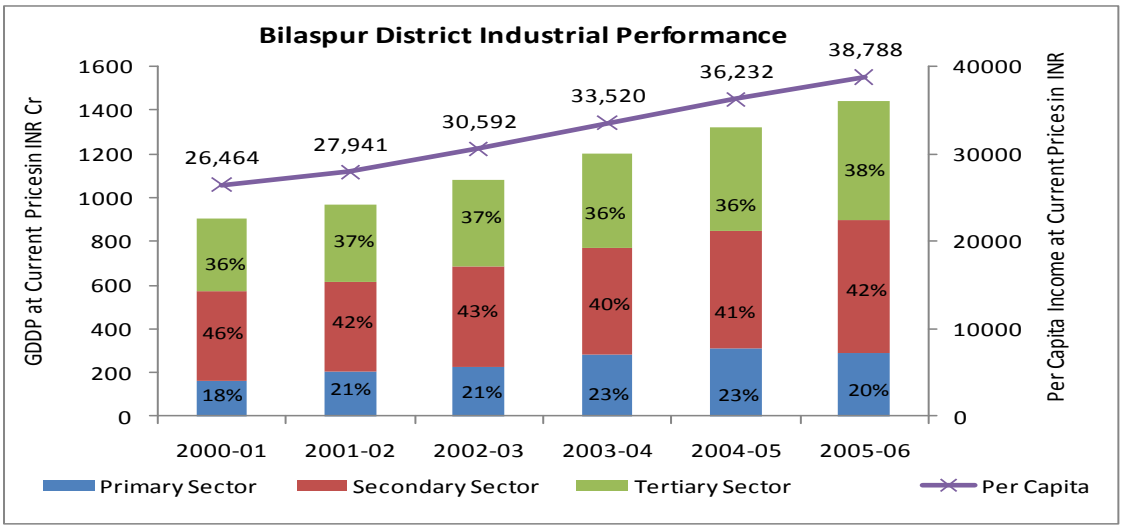
Comparison of the district school education statistics with the overall state details is presented in the table

Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Bilaspur	31,071	0.25%	20,333	0.22%
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

7.1.3 District Economy

Bilaspur is the third least populous district of Himachal Pradesh (out of 12), after Lahaul & Spiti and Kinnaur. The district is known for Gagal Cement works, which is part of India's largest cement company, ACC. The company has an installed capacity of 27 lacs tonnes of cement per annum.

The district economy has witnessed a marginally lower cumulative growth of 8.12 percent[164] during 2000-06 in comparison to the state average of 8.44 percent during the same time[165]. Secondary sector constitutes to over 42% percent of the district economy, indicating an active manufacturing sector. The existing micro and small enterprises in the district mainly comprise of readymade garments and embroidery, Wood and wooden based furniture, Agro based companies and micro units related to repair and servicing. According, to the DIC-Bilaspur there is only one medium scale Cement Company in the district. Further, per capita Income of Bilaspur has registered a cumulative growth of 7.95 percent[166] during 2000-06 compared to the state compounded annual growth rate of 6.87 percent during the same period.[167]Sub-Sector wise GDDP growth trends of Bilaspur are presented in the graph below.



[163] *Bilaspur statistical handbook 2011*
[164] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[165] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[166] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[167] *http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf*

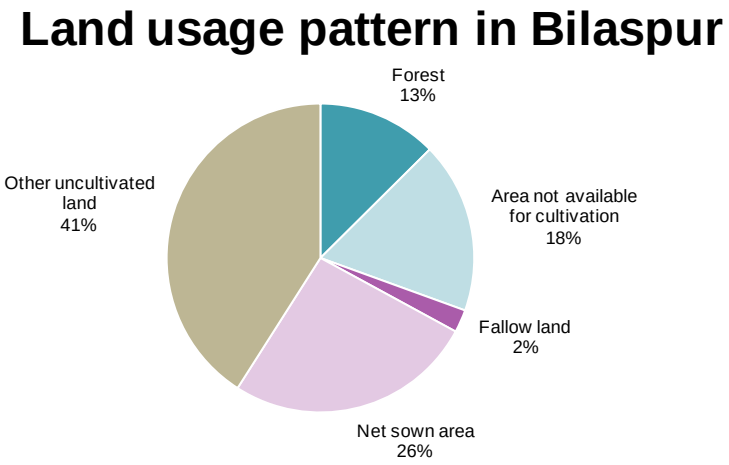
7.1.3.1 Agriculture and allied sectors

Agriculture in Bilaspur, is not merely an occupation but and established tradition and an accepted way of life. It is a mainstay of people where a vast majority of the population depends directly or indirectly on the agricultural pursuits for maintaining their livelihood.

Bilaspur has 26.83 percent[168] of its geographical area under cultivation. According to the available data of 2005-06 from planning commission, Primary sector contributes to around 20% towards district GDP. The main agricultural crops of the district are Wheat, Maize, Rice, Barley and Onion. Apple, Walnuts, Citrus fruits and dry fruits along with other sub-tropical fruits are also grown in the district.

The total cultivated area in Bilaspur is around 56011 hectares[169] and out of this 47 percent is used for Maize cultivation[170] .Wheat is another important crop of the district and 46 percent of the total cultivated area falls under this crop. The district is dependent various sources of irrigation like canals, ponds and ground water from tube-wells and other wells. As per available data from the district report, around 3,508ha [171] of land is irrigated through these alternative channels.

District land usage pattern is presented in the chart[172].



The district has a low forest cover of 13 percent in comparison to the state average of 19 percent[173].

Citrus fruits' farming is an important activity in the district. In 2010-11, approximately 1037.21 hectares of land was under citrus fruits cultivation producing 389.15 metric tonnes of citrus fruits.

Pisiculture is an important allied activity in Bilaspur district with an approximate production of 922.12 metric tons of fish in 2010-11.This is approximately 14 percent of the total Himachal's produce. There are 2,587 licensed fishermen in the district when compared to 12,343 in the state.[174]

[168] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[169] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[170] *Bilaspur statistical handbook*
[171] *Bilaspur statistical handbook*
[172] *Bilaspur statistical handbook*
[173] *Bilaspur statistical handbook*
[174] *Bilaspur statistical handbook*

There are 72 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of INR3, 156.63 lacs.[175]

7.1.3.2 Industry

There are two industrial areas in Bilaspur district, namely, Bilaspur and Gawalthai each having 50 and 31 units of production respectively.

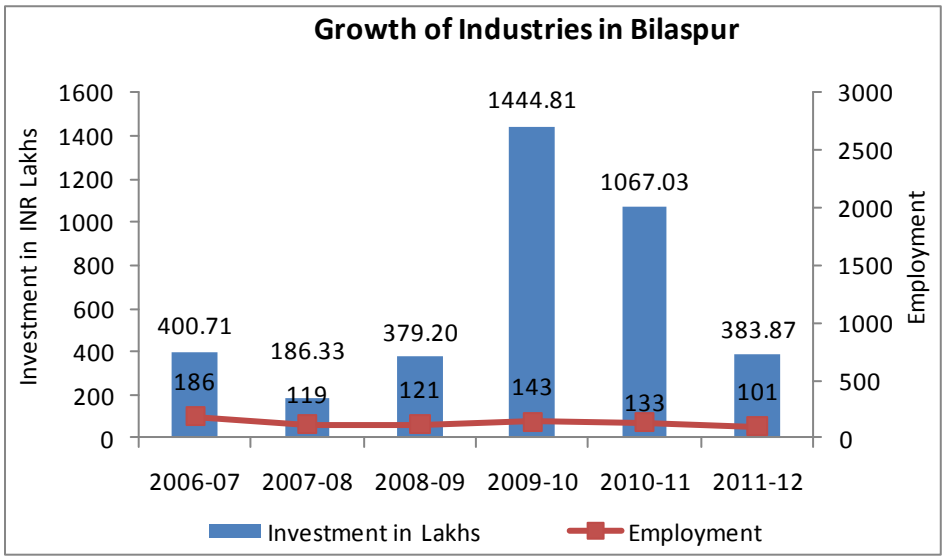
There are 1829 micro and small enterprises and artisan units in Bilaspur that account for a total investment of INR48.76 crore and a total employment of 4302 in the district.[176] The prominent large scale industries/ public sector undertakings operating in the district are ACC Ltd., Suraj Fabrics (Steel div.) and SPS Steel and Power Ltd.

As per 2011 data, 40 small scale factories were registered in the district with an investment of 3.84 crores, employing around 101 people on a daily basis. Bilaspur's share in terms of number of registered units was one of the lowest in Himachal Pradesh with 4.67 percent in 2011.[177]

The district has a significant presence of limestone whose production in 2010-11 was 3,929,750 tonnes[178] which is approximately 34.7 percent of total state's share.In the same year the total shale production was 466,723 tonnes[179], which is approximately 30.7 percent of the Himacha's total share.Minor minerals available in district inlcude Bajri, Sand and Rough stone.

Between 2006-07 and 2010-11, there have been incremental investments of approximately 38.61 crores adding an additional employment of 803 during the period[180].

Employment trends in MSME segments over the recent years are presented in the chart.[181]



[175] *Himachal statistical handbook*
[176] *Brief Industrial profile of Bilaspur District, MSME*
[177] *Himachal statistical handbook*
[178] *Department of Mines and Geology*
[179] *Department of Mines and Geology*
[180] *Brief Industrial profile of Bilaspur District, MSME*
[181] *Brief Industrial profile of Bilaspur District, MSME*

Based on discussions with District Industries Center, following potential MSME thrust areas were identified in Bilaspur district.

Existing	Thrust areas Identified for Promotion
(i) Wood/wooden based furniture (ii) Repairing and servicing (iii) Agro based (iv) Woolen ,silk & artificial Thread based cloths (vii) Metal Based (steel fab) (v) Leather based (vi) Readymade garments & Embroidery (viii) Rubber, plastic and petro based	Maize based, Fruits & vegetables processing, Wooden and steel furniture MSMEs

Source: Brief Industrial profile of Bilaspur district, MSME

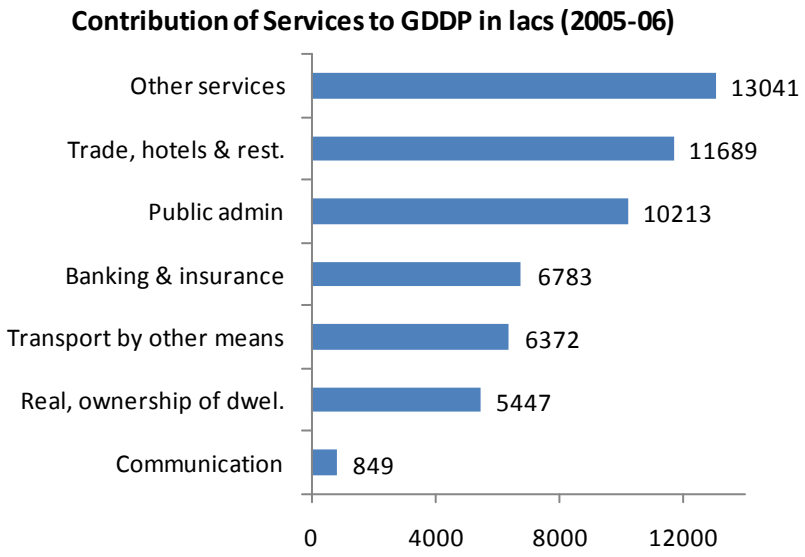
7.1.3.3 Services Sector

Bilaspur district is a key commercial hub which has given way to an active tertiary sector. The sector contributed to 38 percent[182] of Bilaspur GDDP during 2005-06.

Services sector in the district is dominated by trade, hotel and restaurants and public administration[183].Trade activity includes wholesale and retail trade in all commodities whether produced domestically, imported or exported. It also includes the activities of purchase and selling.

Tourism is another important sector that contributes significantly towards the tertiary sector in Bilaspur. The place is famous for Gobind Sagar lake- which offers a variety of water sports, Bhakra dam, Bachhretu Fort, Baseh Fort, Kot - Kahlur Fort, Rattanpur Fort and Naina Devi Temple. Bilaspur's share of total domestic tourist arrival in Himachal Pradesh was close to 8 percent in 2011.[184]

Composition of services economy in the district is presented in the graph below[185].



Bilaspur has a mix of old and new hotels and resorts like Anant Hotel, Balaji Hotel, Chiterkoot Hotel, Mayur Guest House, Panchwati Hotel & Restaurant, Swagat Guest House. The number of restaurants and hotels in Bilaspur has gone up from

[182] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[183] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[184] *Himachal statistical handbook*
[185] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*

277 to 416[186] at a compounded annual growth rate of 4.15% from 2001-2011.Out of these there are 61 registered Hotels and guest houses with a bed capacity of 1209.[187] These restaurants and hotels employ nearly 269 people.[188]

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was close to 4.7 percent as per 2005-06 estimates. Number of bank branches in the district has grown at 2.74 percent CAGR between 2009 and 2011[189] with respect to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately INR420 crores was given in the district by the commercial and State banks in 2011[190]. During the same time the deposits in these banks were approximately INR1325 crores.

The growth in the number of banks from 2009-2011 in the district vis-a-vis the state are highlighted below.

	2009	2010	2011
Bilaspur	54	55	57
Commercial banks/lac population	14	14	15
Himachal Pradesh	980	1053	1105
Commercial banks/lac population	16	17	18

Source: Himachal Pradesh district statistical handbook, Himachal Socio-economic profile

Healthcare coverage in terms of population served, stands at 862 persons per bed, is higher than Himachal Pradesh which is 706 people per bed. District has 34 PHCs and 6 CHCs[191]

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Bilaspur 2011-12[192]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**2**	**-**
Dispensaries	**0**	**-**
CHC/RH	**6**	**-**
PHC's	**34**	**-**
Total	**42**	**443**

[186] *Bilaspur District statistical handbook*
[187] *Directorate of tourism ,Himachal Pradesh*
[188] *Bilaspur District statistical handbook*
[189] *Himachal statistical handbook*
[190] *Himachal statistical handbook*
[191] *Himachal statistical handbook*
[192] *Himachal Statistical handbook*

7.1.4 Workforce Distribution in the district

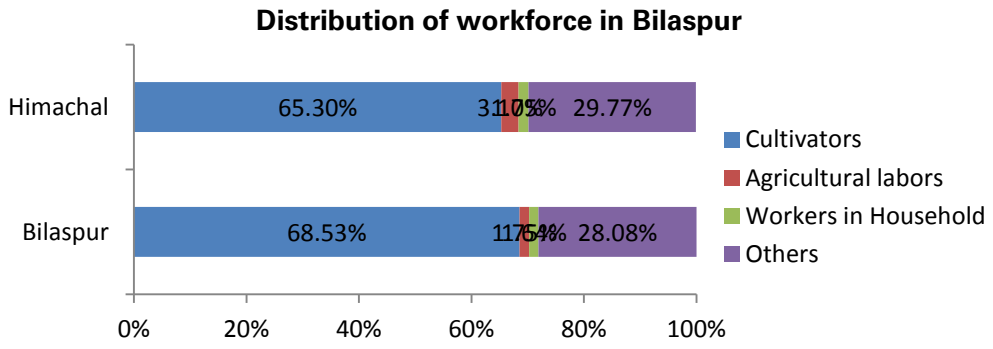
7.1.4.1 Current Employment Scenario in Bilaspur

According to census 2001 the total worker population in Bilaspur was 1.6 lacs, out of which 77 thousand were women and 89 thousand were men. Of the total women worker population, only 24.35 percent females were main workers, 21.22 percent were marginal workers and 54.44 percent were non-workers. Similarly, out of total men workers, 40.50 percent were main workers, 11.72 percent were marginal workers and 47.8 percent were non-workers[193]. This clearly indicates the wide difference of participation between women and men in the economy.

Region	Total workers	Main workers	Marginal workers	Non-workers
Bilaspur	48.95%	32.46%	16.44%	51.10%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (48.95 percent) is marginally higher than the state average of 45.56 percent. As per the Census 2001 data, the female worker participation rate is around 45.56 percent. This has significantly improved since 1991 when it was only 40.82 percent.



Historically, Bilaspur has been a destination from where people migrate to the other districts of Himachal Pradesh for jobs. A majority of literate population moves to the bordering district of Solan which is most industrialized in Himachal Pradesh. People from Bilaspur were also noted to be working in the Naggar block of Kullu during the tourist season. It was also noticed that a significant number of students migrate to Chandigarh and other districts of Punjab for higher education.

7.1.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Bilaspur	434,430	228,510	120,427	112,840
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

[193] *Gender statistics, Government of Himachal Pradesh*

7.1.5.1 Incremental Supply of labour force in the district

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.

Bilaspur is expected to witness a growth in supply of 13.6 thousand incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	**Skilled**	**Semi skilled**	**Minimal skilled**	**Skilled**	**Semi skilled**	**Minimal skilled**
Bilaspur	1,548	2,093	3,161	1,564	2,116	3,195
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

Source: KPMG analysis

7.1.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Bilaspur 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 Bilaspur.

Sector wise skill level requirements during 2012-22

	2012-17			2017-22		
Sub Sectors	**Skilled**	**Semi-skilled**	**Minimal skilled**	**Skilled**	**Semi-skilled**	**Minimal skilled**
Agriculture & Allied Activities	-	-	(444)	-	-	(438)
Construction Based Material	35	140	175	47	187	234
Construction	1,855	3,709	31,529	2,128	4,255	36,169
Healthcare	195	778	-	226	905	-
Transportations and Logistics	76	1,204	1,432	81	1,291	1,536
Retail	32	32	256	28	28	228
Communication	208	625	-	209	626	-
Banking and Financial Services	886	2,657	-	954	2,862	-

Total*	3336	9418	33052	3697	10254	37829

Source: KPMG Analysis; *Disclaimer he total does not add up as only the key industries with manpower requirement of greater than 100 have been included

7.1.6 Human Resource Development in the District

7.1.6.1 Current State of Workforce Development

The higher education penetration in Bilaspur is far lower than the state's. There are no medical, pharma or business related colleges in the district. Often, the eligible students go to Chandigarh and other districts of Punjab to pursue a course of their choice. It was also observed that the placements of students are better in the Punjab region as industry is fairly spread across districts like Ludhiana, Jalandhar, Kapurthala and Amritsar etc. There are six institutes run by the state government in the district out of which four provide general degrees in Arts, Science and Commerce.

Comparison of higher education infrastructure in Solan with Himachal is presented in the table

Category of College	Himachal	Bilaspur
Arts, Science and Commerce	101	5
Engineering/Technology/Architecture	20	1
Medical (Allopathic/Dentistry/Homeopathy)	7	-
Nursing	12	1
Pharmacy	14	-
Management/Business Management	39	-
Education/Teacher training	84	2
Law	8	-
Others (including teacher training institutions, Polytechnics etc)	105	6
Total	409	15
Density(Colleges per Thousand Population)	0.06	0.03

Source: Department of Higher Education, Shimla

Accessibility of vocational education in Bilaspur is lower than the state average. Details of vocational education infrastructure in Bilaspur are presented in the table.

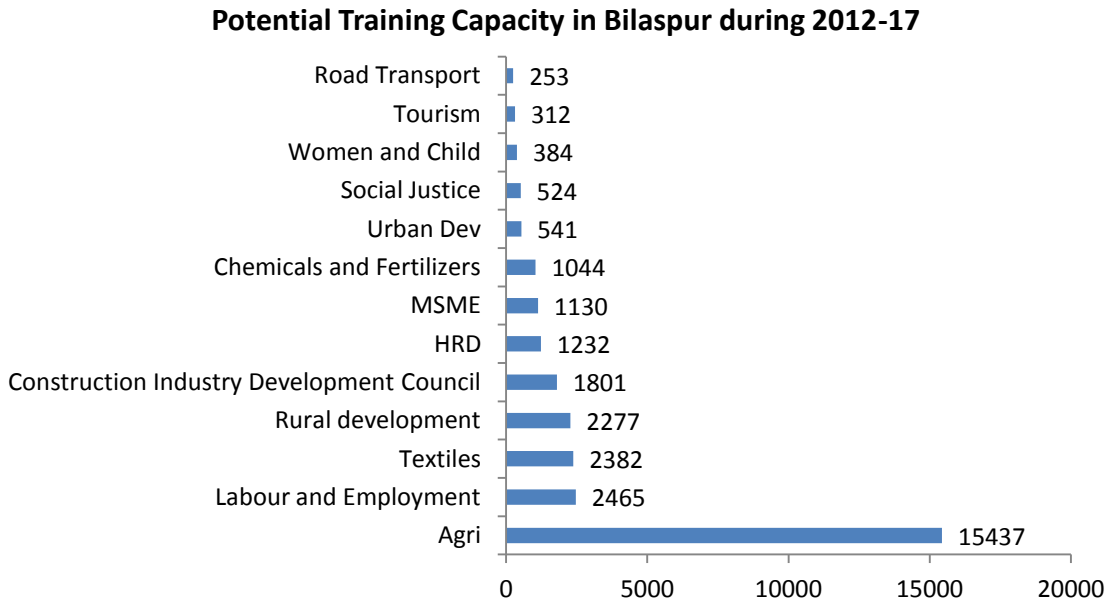
District Wise ITI/ITC Infrastructure (2011)[194]									
	Number				Sanctioned Intake				Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total		

[194] http://www.techeduhp.com/itc.html

Himachal	84	120	204		13,310	10,459	27,364		4
Bilaspur	6	8	10		509	693	1202		3.14

7.1.6.2 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 seven thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Labour and Employment has significant training mandates in the district.



Source: KPMG Analysis, Training plans as per various Ministries/Departments/Organizations

7.1.6.3 Students Interaction outcomes-Youth Aspirations

Students in the ITI were noted to be coming from a middle class background with a family income between INR 10,000 to 20,000 per month. Most students were open to migrate for job opportunities. However, some students from the women ITI preferred to work only in Bilaspur due to personal reasons. Students perceive polytechnic to be a better option as the ITI was only their backup choice. This is due to the better salaries given to the Polytechnic students. All students expected a salary in the range of INR 8,000 to 12,000 and a government job was seen as their first preference. Students do not want to work in the private sector because entry level salaries are low which doe s not commensurate with the amount of work assigned to them.

7.1.6.4 Skill mapping and developmental concerns

Bilaspur is not a very industrialized district. There is only one large scale industry which manufactures cement. However, there are a number of Small scale, Handicrafts, Handlooms and Khadi & village industries. People from the district often migrate to border districts like Solan which has ample opportunities to work in the manufacturing sector. Agriculture is the way of life for most people in Bilaspur and they rely on traditional means of farming. ACC cement is the biggest job provider in Bilaspur. The district lacks licensed heavy equipment drivers which are often needed in the Cement industry and hence hires them from neighboring states like Punjab

Based on the interactions with the local industries, government departments, local population and technical institutes following key observations were derived across the prominent industry of Bilaspur.

Industry	Skill study outcomes
Cement Manufacturing	**Key skill requirements**: Mining Conductor, Heavy equipment drivers, Fitter, Electrician, Chemical mixing **Skill deficits:** Mining Conductor, Heavy equipment drivers **Current status**: At present there is no course available at the ITIs catering particularly to the mining related skills. The industry provides on the job training to the unskilled (12th pass) labour. The biggest concern consistently observed across industries in Himachal is the lack of seriousness and dedication for the job among the native labour. Owing to the requirement for each company to hire at least 70% natives, people have ample job opportunities and regularly leave /switch companies without trying to raise or resolve the reasons for leaving. ITI students need to be given job induction training courses to inculcate professionalism and a serious work ethics. This was the only input received from the surveyed company.

8.1 District specific recommendations

Bilaspur, being a moderately industrialized district with good concentration of small scale units has significant opportunities for skill development mainly across the manufacturing and tourism sector. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- High employment potential in manufacturing sector-**Cement**
- Allied skill requirements noted in **Heavy equipment driving such as Bulldozers, Cranes and JCB's**
- Presence of minerals like Limestone may promote the overall **Construction sector**
- Large presence of forest have given rise to **Wood and Wooden based furniture** units
- The unorganized sector mainly constitutes artisan professions, khadi and village industries such as **handloom** and **handicrafts**
- **Labour unions and truck unions and non availability of skilled labour** are the issues often raised by the industry.
- **Fruit and vegetable processing** has a good scope in the district
- The district serves as the manpower provider to the other districts of Himachal Pradesh
- Service sector largely dominated by **tourism.**
- Poor branding of the ITI's and the ITC in the district.

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

Stakeholder	Action Points for Stakeholders
NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors ○ Mining ○ Fruit and vegetable processing

	○ Heavy equipment operators ○ Other Livelihood trades • Forging public private partnerships with leading private sector firms such as ACC in Bilaspur to create an inclusive ecosystem for skill development • Create infrastructure to monitor the existing skill initiatives in the district • Set up camps in schools to bring a paradigm shift in perception of youth for vocational training and provide scholarship fund for high achieving students interested in taking up skill related courses. • The key small scale industries in the district are Repair and Servicing, Engineering Units, Agro Based, and wood / wooden based furniture. In absence of formally certified skills, these labors tend to earn lower wages. • Targeted training interventions could be developed to up skill and certify those engaged in these areas
District Administration	• Create an enabling environment such as an option of taking a loan, in the same way one can, if he chooses to pursue a degree program by associating a lead bank with an ITI • Make effective use of Public relation officer's to promote campaigning for admitting school dropouts in MES courses. • Community learning initiative for women in the backward areas could be initiated. • Minimum apprentice wages should be increased to make the trainings more attractive • Strengthen the" train the trainer" program by creating a "tool room" in the district. • Evaluate rural skill development schemes in sectors such as "construction" in alignment with MGNREGA
Industry	• Providing shop floor training during the schedule of training curriculum and paying apprentices for that period • Collaborate with skill development institutes to update course content. • Support the institutional management committee under the PPP scheme to make it more effective and ensure adequate placements and effective training. • Pay the apprentices a reasonable stipend to keep them motivated.
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district. • Evaluate and update the course content as per industry requirements with focus on placement opportunities

7.2 Skill Gap Study of District of Chamba

7.2.1 Administrative profile

Chamba is the northwestern district of Himachal Pradesh, with its headquarters in Chamba. It is bounded by Jammu and Kashmir on the northwest, Kangra district on the south and south-east and Ladakh and Lahaul on the east.[195]

The area of district is 6,528 sq km, which accounts for 11.7 percent of the total share of the state area[196].

Administratively, the district has been divided into six sub divisions (Chamba, Dalhousie, Tissa, Chowari, Bharmour and Pangi); seven tehsils (Chamba, Dalhousie, Tissa, Chowari, Bharmour, Salooni and Pangi) and seven blocks (Chamba, Dalhousie, Tissa, Mehla, Bharmour, Salooni, Bhattiyat and Pangi)[197]

7.2.2 Social Profile

7.2.2.1 Demographics

Chamba, the northwestern district of Himachal Pradesh, has a population of around 5.18 lacs[198]as per Census 2011 estimates. The district has a low population density of 80 people per sq. km[199], which is much lower than the state average density of 123 per sq.km. The low concentration of population in the district can be attributed to the hilly topography and low avenues for employment except in tourist destinations like Dalhousie and Khajjiar.

The district has witnessed increase in the female composition of population during 2001-11. Adult gender ratio of Chamba district has increased from 959 females per 1000 males[200] in 2001, to 989 females per 1000 males[201] in 2011. However, there has been a marginal decrease in the child (0-6 age group) gender ratio from 955 females per 1000 males[202] in 2001 to 950 females per 1000 males[203] in the same period. Chamba has a reserved caste population of 20.04 percent[204] as compared to 24.72 percent of Himachal Pradesh as per Census 2001.

7.2.2.2 Literacy

The district has a literacy rate of 73.19 percent[205] as compared to the state's average of 83.78 percent[206] . Chamba has the lowest literacy rate among all other districts of Himachal Pradesh. The low rate of literacy can be attributed to the high dropout percentage due to extreme poverty and other family circumstances of families.

There are 1524[207] schools in the district, out of which more than 39 percent are located in the Bhattiyat and Mehla block alone. As per 2011 estimates, the drop-out percentage of children in both primary and upper primary level is higher than the state average.

Comparison of district school education statistics with overall state details is presented in the table:

[195] *http://hpchamba.nic.in/*
[196] *Himachal Statistical handbook*
[197] *http://hpsolan.nic.in/fact.html*
[198] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[199] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[200] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[201] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[202] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[203] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[204] *Himachal Statistical handbook*
[205] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[206] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[207] *Chamba district statistical handbook*

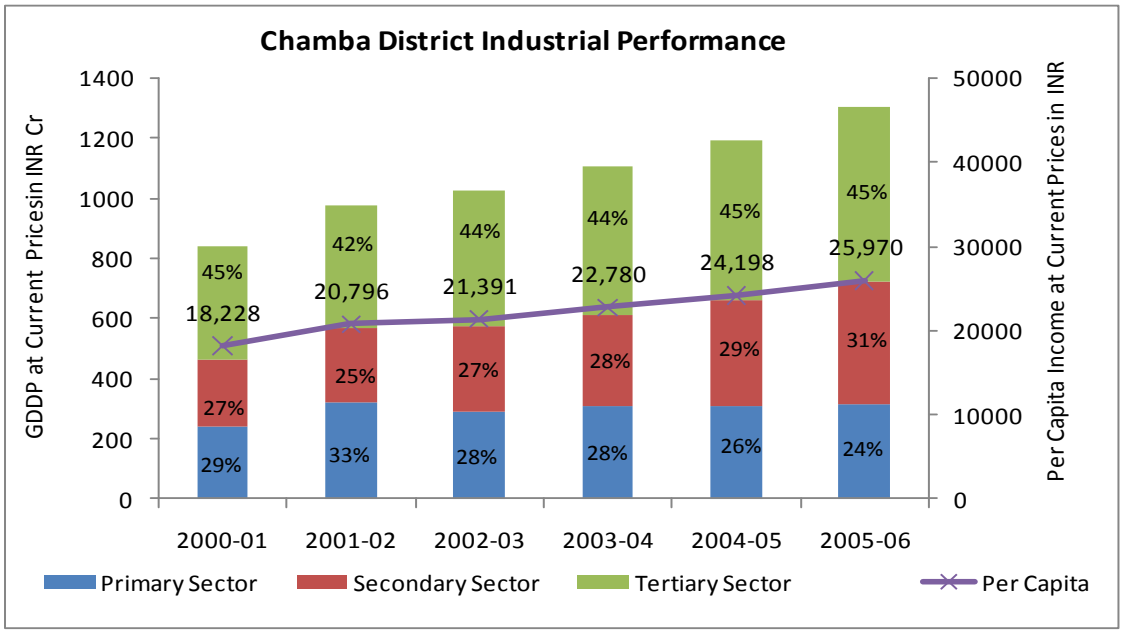
Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Chamba	55,306	0.49%	34,224	0.65%
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

Source: RMSA and SSA

7.2.3 District Economy

Chamba, is a small but an attractive tourist destination of Himachal Pradesh, is known for its exquisite natural beauty. The district is one of the country's 250 most backward districts (out of the total 640) and receives funds from backward regions grant fund program.

The economy of the district is primarily agrarian. The district economy has witnessed a compounded annual growth rate of 7.61 percent[208] during 2000-06 in comparison to the state average of 8.41 percent[209] during the same period. Secondary sector constitutes to over 31 percent of district economy. The secondary sector is dominated by small Agro based and Wooden based furniture units. Tertiary sector contributes significantly (45%) towards the district economy, on an account of religious and adventure tourism. Further, per capita Income of Chamba has registered a cumulative growth of 7.34 percent[210] during 2000-06 compared to the state compounded annual growth rate of 6.87 percent during the same period.[211]Sub-Sector wise GDDP growth trends of Chamba are presented in the graph below.



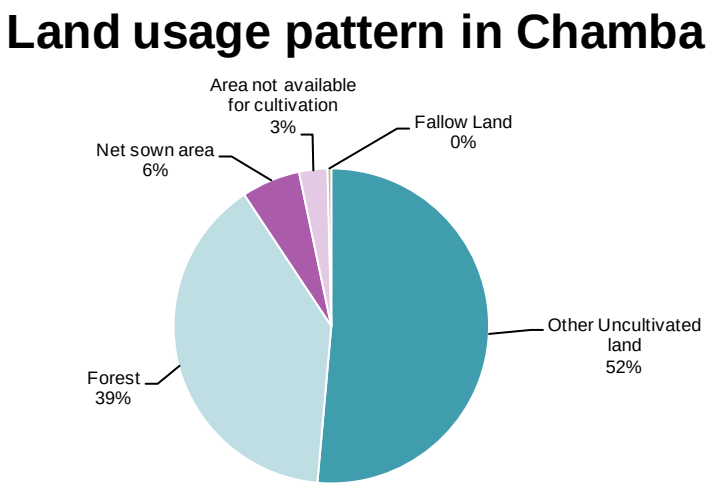
[208] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[209] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[210] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[211] http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf

7.2.3.1 Agriculture and allied sectors

Agriculture is the mainstay of the people of Chamba. The district has 9.79 percent[212] of its total geographical area under cultivation. According to the available data of 2005-06 from planning commission, Primary sector contributes to around 24 percent towards district GDP. The main agricultural crops are Maize, Barley, Paddy, Pulses, Potato, Onion, Spices. Fruits such as Apple, Nuts and dry fruits along with other sub-tropical fruits are also grown in the district.

The total cultivated area in Chamba is around 67,775 hectares[213] and out of this, 41percent is used for Maize cultivation[214] .Wheat is another important crop of the district and 30.7 percent of the total cultivated area falls under this crop. The district is dependent on various sources of irrigation like canals, ponds and ground water from tube-wells. As per available data from the district report, around 655ha [215] of land is irrigated through these alternative channels. With 62.75 percent of net sown area in the district exposed for multiple cropping[216], there is a need to promote minor irrigation techniques to sustain agricultural growth in Chamba.

District land usage pattern is presented in the chart[217].



The district has a high forest cover of 39 percent in comparison to the state average of 19 percent.

Out of all the other fruits, apple farming is an important activity in the district. In 2010-11 approximately 12,181.78 hectare of land was under Apple cultivation producing 14,803.66 metric tonnes of apple.[218]

Pisiculture is also an occupational activity in Chamba district. In 2010-11, there was an approximate production of 278.09 metric tons of fish. This is approximately 3.77 percent of the total Himachal's produce[219].There are 536 licensed fishermen in the district when compared to 12,343 in the state. [220]

There are 130 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of INR85.4 lacs.[221]

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[212] *Chamba statistical handbook*
[213] *Chamba district statistical handbook*
[214] *Chamba district statistical handbook*
[215] *Chamba district statistical handbook*
[216] *KPMG analysis (calculated as Area available for multiple cropping divided by Net sown area)*
[217] *Chamba district statistical handbook*
[218] *Chamba district statistical handbook*
[219] *Himachal Statistical handbook*
[220] *Chamba district statistical handbook*

7.2.3.2 Industry

There are five industrial areas in Chamba, namely Suletanpur, Parel, Holi, Garnota and Hatli. Out of these, Hatli has the maximum number of units in production. There are only small scale industries in Chamba and 53 percent of them are concentrated in the Hatli industrial area.The main industry in the district is Agro, small steel fabrication units and wooden furniture. General repairing and servicing worksops are are also prominent.

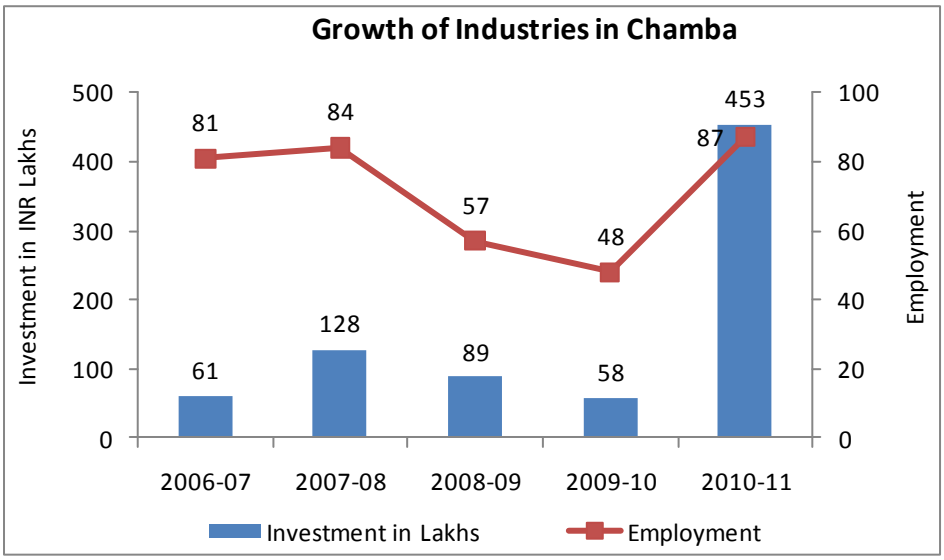
Although there are no major minerals available in the district, the minor minerals available are Bajri, Sand and Slate[222].

The existing cluster of Micro and small enterprises is Leather and wooden based.

Forests play an important role in the economy of the district and major forest produce that comes forests are in the form of timber, firewood,katcha,resin, fodder and herbs. There is no scope of ancillarisation of the industry in the district as there are no large scale units in the area. As per 2011 data, only 21 small scale factories were registered in the district with an investment of INR1.96 crores, employing a mere 73 people.[223]

Between 2006-07 and 2010-11, Industries in the district have grown at a CAGR of 65 percent adding an additional employment of over 357during the period.

Employment trends in MSME segments over the recent years are presented in the chart.[224]



Based on discussions with District Industries Center, following potential MSME thrust areas were identified in Chamba district.

Existing	Thrust areas Identified for Promotion
(i) Agro based (ii) Wood/wooden based furniture (iii) Metal based (steel fabrication), (iv) Leather based (v) Paper & Paper products (vi) Woolen, silk & artificial Thread	Leather based products, Wooden Furniture products,

[221] *Himachal Statistical handbook*
[222] *Department of Mines and Geology*
[223] *Himachal Statistical handbook*
[224] *Brief Industrial profile of Chamba District, MSME*

based clothes	Woolen products

Source: Brief Industrial profile of Chamba district, MSME

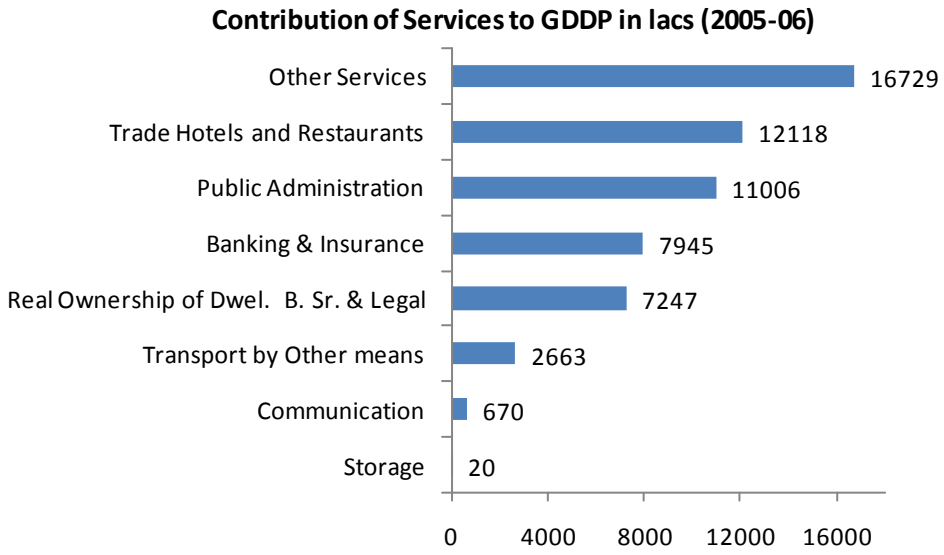
7.2.3.3 Services Sector

Chamba district has given way to an active tertiary sector. The sector contributed to 45 percent[225] of Chamba GDDP during 2005-06.

Services sector in the district is dominated by other services, trade, hotel and restaurants and public administration[226].Trade activity includes wholesale and retail trade in all commodities whether produced domestically, imported or exported. It also includes the activities of purchase and selling.

Tourism is another important sector that contributes significantly towards the tertiary sector in Chamba. Chamba, the land of lord Shiva, is famous for its untouched natural beauty. The district has Dalhousie, Khajjiar (known as 'Mini Switzerland'), Chamba Town, Pangi and Bharmour as main tourist destinations. There are around five lakes, five wild life sanctuaries and countless number of temples like Laxmi Narayan Temple, Chamunda Devi Temple, and Sui Mata Temple etc. to visit here. Chamba valley is also famous for trekking as it has three well-defined snow ranges Laskar, Dhauladhar and Pir Panjal.

Composition of services economy in the district is presented in the table below[227].



Chamba has a wide variety of hotels and resorts like Hotel Iravati, Hotel Devdar, The Manimahesh, Dalhouise Heights, Grand View, Gouncha Siddharath, Indraprasth Resort. The number of restaurants and hotels in Chamba has gone up from 420 to 471[228] at a compounded annual growth rate of 1.15% from 2001-2011.Out of these there are 150 registered Hotels and guest houses with a bed capacity of 3,223.[229] These restaurants and hotels employ nearly 595 people.[230]

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was close to 6.09 percent as per 2005-06 estimates. Number of bank branches in the district has grown at 4.29 percent CAGR between 2009

[225] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[226] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[227] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[228] *Chamba district statistical handbook*
[229] *Himachal Statistical handbook*
[230] *Chamba district statistical handbook*

and 2011[231] with respect to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately INR431 crores was given in the district by the commercial and State banks during 2010-11[232] .During the same time the deposits in these banks were approximately INR1,281 crores.

The growth in the number of banks from 2009-2011 in the district Vis a Vis the state are highlighted below.

	2009	2010	2011
Chamba	57	60	62
Commercial banks/lacs population	11	12	12
Himachal Pradesh	980	1053	1105
Commercial banks/lacs population	16	17	18

Source: Himachal Pradesh district statistical handbook, Himachal Socio-economic profile

Healthcare coverage in terms of population served, stands at 848 persons per bed, is higher than Himachal Pradesh which is 706 people per bed. District has 42 PHCs and 7 CHCs[233]

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Chamba[234]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**4**	**-**
Dispensaries	**0**	**-**
CHC/RH	**7**	**-**
PHC's	**42**	**-**
Total	**53**	**611**

Based on the interaction with the local people, DIC and technical institutes present in the state, following observations were made for the services industry[235]:

Thrust areas Identified for Promotion
(i) Mobile repair (ii) Electrical and electronics assembly (iii) Hotels and Restaurants and Auto repair

[231] *Himachal Statistical handbook*
[232] *Himachal Statistical handbook*
[233] *Himachal Statistical handbook*
[234] *Himachal Statistical handbook*
[235] *Brief Industrial profile of Chamba District, MSME*

7.2.4 Workforce Distribution in the district

7.2.4.1 Current Employment Scenario in Chamba

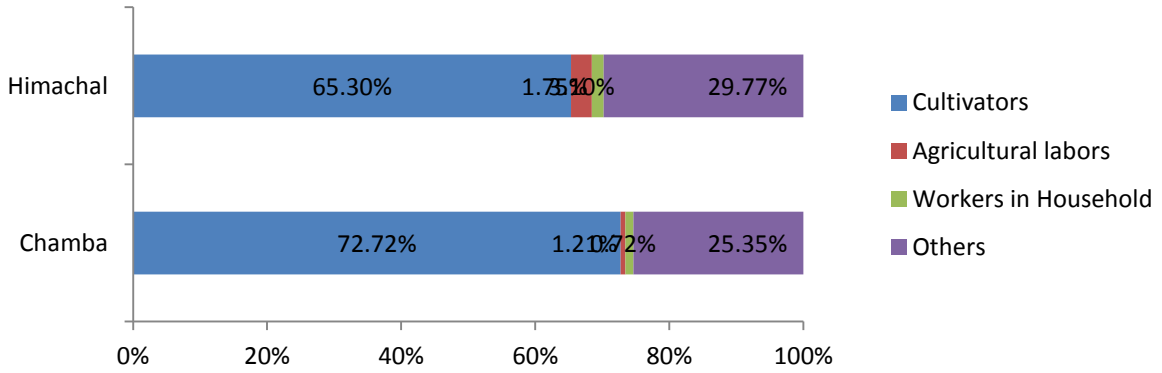
According to the Census 2001, the total worker population in Chamba was 2.3 lakhs, out of which 1.03 lakhs were women and 1.27 lakhs were men. Of the total women worker population, only 14.95 percent females were main workers, 31.02 percent were marginal workers and 54.03 percent were non-workers. Similarly, out of total men workers, 40.27 percent were main workers, 13.6 percent were marginal workers and 46.13 percent were non-workers[236]. This clearly indicates the wide difference of participation between women and men in the economy.

Region	Total workers	Main workers	Marginal workers	Non-workers
Chamba	50%	27.87%	22.13%	50%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (50 percent) is marginally higher than the state average of 49.24 percent. As per the Census 2001 data, the female worker participation rate is around 45.97percent. This has improved since 1991 when it was only 42.89 percent. However, high share of non working population still remains especially in the women category, which needs to be addressed through adequate training for self employment generation

Distribution of workforce in Chamba



Historically, Chamba has been a tourist destination with destinations like Khajjiar, Pangi and Dalhousie. The district unlike the others in Himachal Pradesh has a minimal industry presence and hence an outward migration trend noticed. The migrants normally work in districts like Sirmaur and Solan which are more industrialized.

[236] *Gender statistics, Government of Himachal Pradesh*

7.2.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Chamba	590,393	310,547	166,345	155,865
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG analysis

7.2.5.1 Incremental Supply of labour force in the district

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.

Chamba is expected to witness a growth in supply of 18.8 thousand incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	**Skilled**	**Semi skilled**	**Minimal skilled**	**Skilled**	**Semi skilled**	**Minimal skilled**
Chamba	1,169	931	7,295	1,182	941	7,373
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

Source: KPMG analysis

7.2.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Chamba 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 Chamba.

Sector wise skill level requirements during 2012-22

	2012-17			2017-22		
Sub Sectors	Skilled	Semi-skilled	Minimal skilled	Skilled	Semi-skilled	Minimal skilled
Agriculture & Allied Activities	-	-	(1,496)	-	-	(1,476)
Fabricated metal products	23	92	116	22	87	109
Construction	1,772	3,543	30,117	2,032	4,065	34,549
Healthcare	299	1,197	-	308	1,230	-
Transportations and Logistics	39	613	729	41	657	782
Retail	48	48	384	43	43	342
Hospitality	14	22	108	13	19	97
Communication	214	643	-	215	644	-
Banking and Financial Services	1,095	3,284	-	1,179	3,537	-
Education and Training	42	280	-	6	41	-
Total*	3548	9730	29970	3861	10334	34416

Source: KPMG Analysis

* Please note: Only the key industries have been highlighted individually in the section. Hence, the total may not add up.

7.2.6 Human Resource Development in the District

7.2.6.1 Current State of Workforce Development

The penetration of higher education in Chamba is very low due to which a number of students go to the other districts within Himachal Pradesh for higher education.

Comparison of higher education infrastructure in Chamba with Himachal is presented in the table.

Category of College	Himachal	Chamba
Arts, Science and Commerce	101	7
Engineering/Technology/Architecture	20	-
Medical (Allopathic/Dentistry/Homeopathy)	7	-
Nursing	12	2
Pharmacy	14	-

Management/Business Management	39	-
Education/Teacher training	84	2
Law	8	-
Others (including teacher training institutions, Polytechnics etc)	105	4
Total	409	15
Density(Colleges per Thousand Population)	0.06	0.02

Source: Department of Higher Education, Shimla

The district, like Higher education has low penetration of Vocational education as well. Chamba has 5 polytechnic institutes and 12 ITI's (both private and government) which have 975 seats catering to a significant population leading to a low density per thousand.

Details of vocational education infrastructure in Chamba is presented in the table.

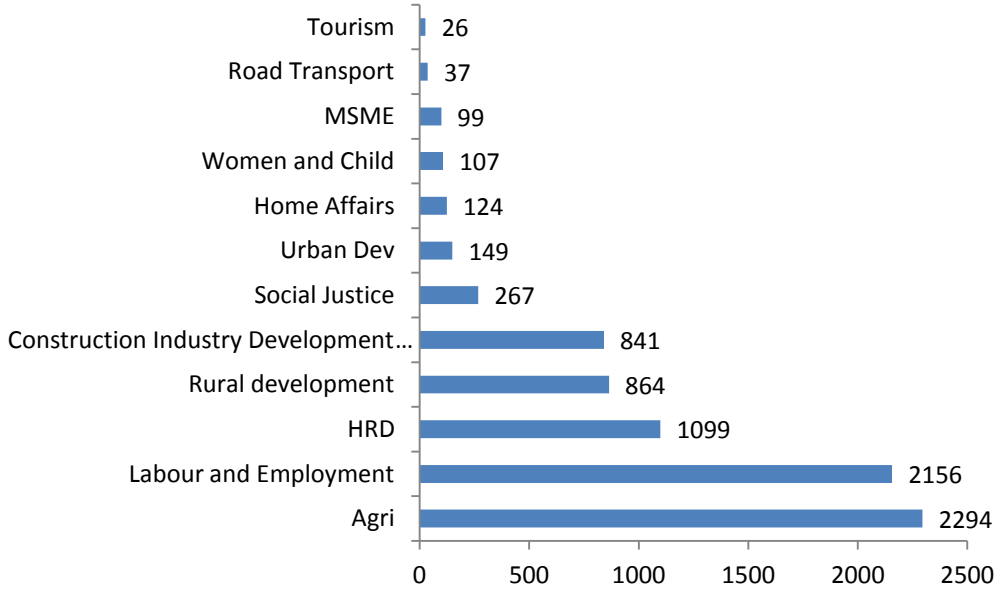
District Wise ITI/ITC Infrastructure (2011)[237]									
	Number				**Sanctioned Intake**				**Density(Seats per Thousand Population)**
Region	**Govt ITI**	**Private ITI**	**Total**		**Govt ITI**	**Private ITI**	**Total**		
Himachal	84	120	204		13,310	10,459	27,364		4
Chamba	8	4	12		671	304	975		1.88

[237] *http://www.techeduhp.com/itc.html*

7.2.6.2 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 30 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Labour and Employment has significant training mandates in the district.

Potential training capacity in Chamba during 2012-17



7.2.6.3 Students Interaction outcomes-Youth Aspirations

Students in the district showed an equal preference towards private and the government job, with a higher percentage of students wanting the job in the same trade in which they were pursuing the course. Students were also open to migration to the other districts as the industry presence in Chamba is minimal. Higher preference was noticed towards polytechnics as some students from COE switch to Polytechnics after covering the basic modules. Students of the districts appeared to have good awareness in terms of career prospects and were aware of the possible companies that could give them employment. The youth were seen to prefer salaried job over self employment.

7.2.6.4 District skill requirements

Based on the interactions with the local industries, government departments, local population and technical institutes it was observed that the district has a vast potential in hydel power generation. Similarly, the district offers tremendous scope for adventure sports such as mountaineering, trekking and camping etc. Following key skill gaps were noticed amongst the prominent industries.

Industry	Skill study outcomes
Hydel Power	**Key skill requirements**: Foreman, Crusher, Compressor operators, Drillers, Blasters, Excavators, Mining manager, Heavy license drivers, Auto electricians, Road cutters, Mucking, Mechanics motor vehicle, electricians and turbine operators **Skill deficits:** Auto electricians, Heavy license drivers **Current status**: Unskilled (10^{th} or 12^{th} pass) people are hired as labourers or helpers on a

	yearly contract basis during construction. In most cases, these jobs are given to the locals as per the agreement reached during the land acquisition stage. The regular workers hired during construction now form a surplus and are being provided training at ITIs to transfer them to other operations. Recruitment for lower level employees in operations is being done from the ITI's machinist and electrical trades.

8.1 District specific recommendations

Chamba is an industrially backward district that receives grants from the Backward Regions Grants fund. The district is mainly a supplier of manpower to the other districts in Himachal Pradesh. There are opportunities in skill development mainly in the Hydel Power sector. The manpower may also be trained in areas like Security services and Heavy equipment driving. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- Employment potential in manufacturing sector-**Hydel power and Agro based**
- Potential for new MSME's are in the areas like **Food Industries, Mineral water, Extraction of minerals and Horticulture based industries.**
- The growth in industrial development in the nearby districts has spurred indirect employment demand in certain unorganized sectors like **security services and facilities management**
- Service sector largely dominated by **Tourism** in Dalhousie and Khajjiar**.**
- Potential areas of service industry are related to **Automobile manufacturing, Electronics, Electricals and Fabrication works**
- The district faces problem of Erratic electric power supply
- Low availability of skilled manpower
- Problem of marketing of finished products
- High transportation costs
- Low penetration of technical and higher education.
- Poor branding of the ITI's and the ITC in the district.
- Low motivation of the existing teachers to teach in the government institutes.

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

Stakeholder	Action Points for Stakeholders
NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors o Hydel Power o Horticulture o Fruit Processing o Tourism o Auto repair

	○ Security sector ○ Heavy machine operators like JBL, Bulldozers etc • Set up camps in schools to bring a paradigm shift in perception of youth for vocational training.
District Administration	• Create an enabling environment such as an option of taking a loan, in the same way one can, if he chooses to pursue a degree program. • Associate lead banks with the ITI to fund student for Self employment initiatives. • District Commissioner may fix rates for the Apprentices in the district. • Creating an infrastructure for Skill development of teachers (such as a tool room) within the district and make trainings mandatory for all the trainers. Optionally, the same could be started at the State level.
Industry	• Support the institutional management committee under the PPP scheme to make it more effective and ensure adequate placements and effective training. • Rewarding the students appropriately who come for In-plant trainings. • Providing regular feedbacks to the students and their teachers in the ITI
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district. Curriculum should be designed and aligned in such a way that the student gets an option for placement • Private players may develop curriculum for training students on soft skills. Further, they may forge partnerships with existing government ITI's and focus of soft skill training to students as well as teachers. This would open another revenue stream for these players.

7.3 Skill Gap Study of District of Hamirpur

7.3.1 Administrative profile

Hamirpur is a town and the headquarters of Hamirpur district. It is bordered by Kangra district in the north, Mandi district to the east, Bilaspur to the South and Una to the west.[238]

Hamirpur is the smallest district of Himachal Pradesh with an area of 1,118 sq km, which accounts for 2 percent of the total share of state area[239].

Administratively, the district has been divided into four sub divisions (Hamirpur, Nadaun, Barsar and Bhoranj); six tehsils (Hamirpur, Nadaun, Barsar, Sujanpur, Bhoranj and Bamson) and six blocks (Hamirpur, Nadaun, Bhoranj, Bijhari, Sujanpur and Touni Devi)[240]

7.3.2 Social Profile

7.3.2.1 Demographics

As per Census 2011 estimates, Hamirpur district has a population of around 4.54 lacs[241], contributing to 6.6 percent of the total state population. The district has a population density of 406 people per sq. km[242], which is much higher than the state average density of 123 per s.km.

The high concentration of population in the district can be attributed to the fact that the district is an important regional and educational centre of Himachal Pradesh and has significant employment opportunities. The district has witnessed increase in female composition of population during 2001-11.

Adult gender ratio of Hamirpur district has decreased marginally from 1099 females per 1000 males[243] in 2001, to 1096 females per 1000 males[244] in 2011. However, there has been an increase in the child (0-6 age group) gender ratio from 850 females per 1000 males[245] in 2001 to 881 females per 1000 males[246] in the same period. Hamirpur has a reserved caste population of 23.88 percent[247] as compared to 24.72 percent of Himachal Pradesh as per Census 2001.

7.3.2.2 Literacy

The district, known as politically hot segment in state politics, has a higher literacy rate of 89.01 percent[248] as compared to the state's average of 83.78 percent[249] . The higher rate of literacy in Hamirpur can be accounted to economic growth and political importance, which has attracted significant private and public participation in the school segment. Further, the gender disparity in education attainment levels is also prominent with a low female literacy rate of 83.44 percent when compared to the male literacy rate of 95.28 percent[250].

[238] *http://hphamirpur.nic.in*
[239] *Himachal Statistical handbook*
[240] *http://hpsolan.nic.in/fact.html*
[241] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[242] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[243] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[244] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[245] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[246] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[247] *Himachal Statistical handbook*
[248] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[249] *http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html*
[250] *Himachal Statistical handbook*

The district has many reputed colleges/university and schools such as National Institute of Technology, Netaji Subhash Chandra Bose Memorial Government Postgraduate College, Sainik School Sujanpur Tira (Boys). There are 782[251] schools in the district, out of which around 45 percent are located in the Nadaun and Bijhari block alone. As per 2011 estimates, the drop-out percentage of children in primary level is higher than the state average while that for upper primary level is lower than the state average.

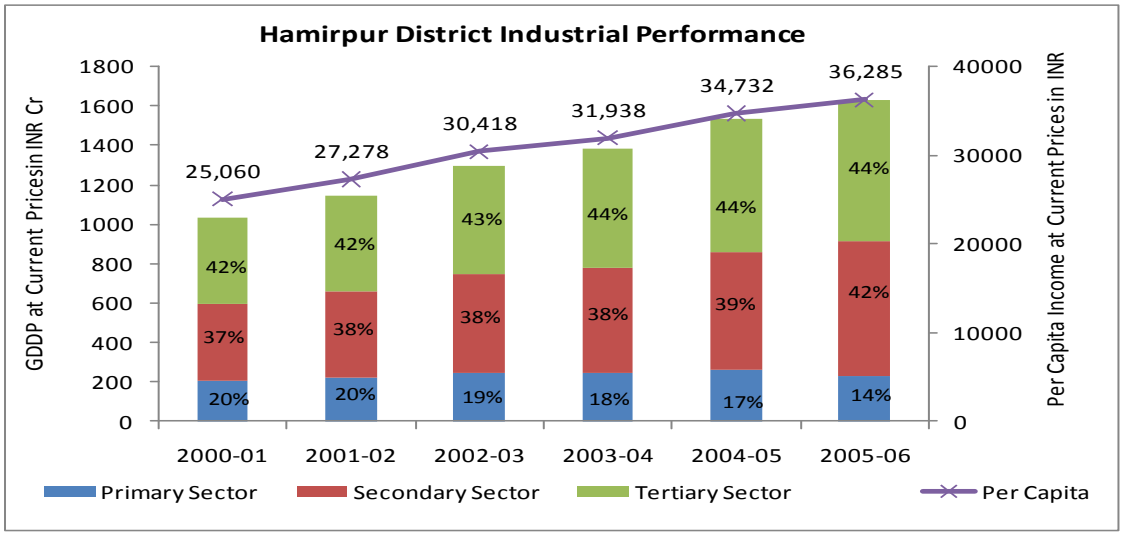
Comparison of district school education statistics with overall state details is presented in the table

Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Hamirpur	38,214	0.43%	24,407	0.045%
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

Source: RMSA and SSA

7.3.3 District Economy

Hamirpur district has a vibrant mix of activities including trade, commerce, tourism, education institutions and transport. It has become a regional trade and educational centre, increasing trade and commercial activities with potential for allied agro/forest based industries in the vicinity expected to play important role in the district's future growth.[252]The district economy has witnessed a higher cumulative growth of 7.9 percent[253] during 2000-06 in comparison to the state average of 6.87 percent during the same period[254]. Secondary sector constitutes to over 42% percent of district economy, indicating a relatively active manufacturing sector. Further, the per capita Income of Hamirpur has registered a cumulative growth of 7.68 percent[255] during 2000-06 compared to the state compounded annual growth rate of 6.87 percent during the same period.[256]Sub-Sector wise GDDP growth trends of Hamirpur are presented in the graph below.



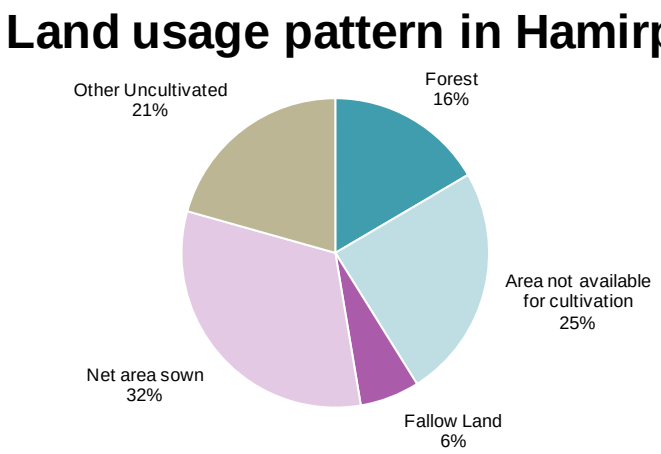
[251] *Hamirpur district statistical handbook*
252 Hamirpur district profile
[253] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[254] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[255] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[256] *http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf*

7.3.3.1 Agriculture and allied sectors

Hamirpur has 61.72 percent[257] of its total geographical area under cultivation. According to the available data of 2005-06 from planning commission, primary sector contributes to around 14 percent towards district GDP. The main agricultural crops are Wheat, Maize, Rice and Barley. Sugarcane, Potato, Ginger, Nuts, dry fruits, citrus fruits along with other sub tropical fruits are also grown in the district.

The total cultivated area in Hamirpur is around 68,032 hectares[258] and out of this 49.7 percent is used for Wheat cultivation[259] .Maize is another important crop of the district and 46.4 percent of the total cultivated area falls under this crop. The district is dependent various sources of irrigation like canals, ponds and ground water from tube-wells. As per available data from the district report, around 1,789 ha[260] of land is irrigated through these alternative channels. A total of 92.75 percent of the net sown area in the district is exposed for multiple cropping[261].

District land usage pattern is presented in the chart[262].



The district has a relatively low forest cover of 16 percent in comparison to the state average of 19 percent.

Sugarcane production is one of the major activities in the district. In 2009-10 approximately 43 hectare of land was under Sugarcane cultivation producing 22.36 metric tonnes of sugarcane.[263]

There is a high possibility that Pisiculture could emerge as an allied activity in Hamirpur district, if promoted appropriately by the department of fisheries. Approximately 256 metric tons of fish was produced in 2010-11. This is approximately 3.47 percent of the total Himachal's produce[264].There are 346 licensed fisherman in the district when compared to 12343 in the state.[265]

[257] *Hamirpur district statistical handbook*
[258] *Hamirpur district statistical handbook*
[259] *Hamirpur district statistical handbook*
[260] *Hamirpur district statistical handbook*
[261] *KPMG analysis (calculated as Area available for multiple cropping divided by Net sown area)*
[262] *Hamirpur district statistical handbook*
[263] *Hamirpur district statistical handbook*
[264] *Himachal Statistical handbook*
[265] *Hamirpur district statistical handbook*

There are 221 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of INR5, 312.63 lacs.[266]

7.3.3.2 Industry

There are two industrial areas in Hamirpur district, namely, Hamirpur and Nadaun. However, There are no large scale industries/ public sector undertakings or medium scale enterprises in the district.[267]

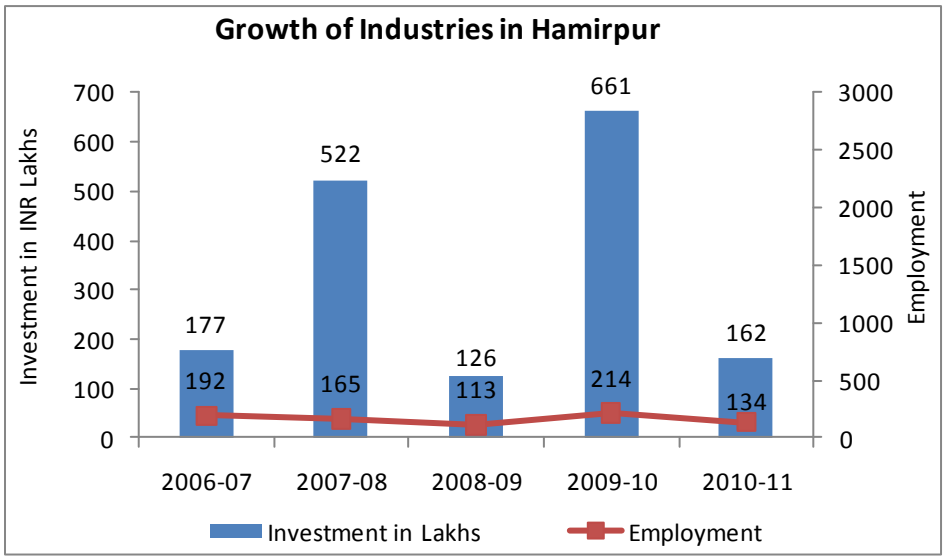
Although there are no major minerals available in the district, minor minerals like Bajri, sand and Boulders are available here[268].

Forest resource has a vital role to play from the point of view of finding scope for resource based industries in the district. Major forest produce are in the form of timber, firewood, resin, fodder, herbs. The main species of trees available in the district are Khair, Cheel, Shesam, Neem, Kikar, Sirish and Kasmal.[269]

There is no scope for vendorisation/ancillarisation as there is no medium, large and PSUs in the district. As per 2011 data, 50 small scale factories were registered in the district with an investment of INR0.93 crore, employing around 120 people on a daily basis.[270]

Between 2006-07 and 2010-11, Industries in the district have fallen at a CAGR of (0.02) percent adding an additional employment of around 818 during the period.

Employment trends in MSME segments over the recent years are presented in the chart.[271]



Based on discussions with District Industries Center, following potential MSME thrust areas were identified in Hamirpur district.

[266] *Himachal Statistical handbook*
[267] *Brief Industrial profile of Hamirpur District, MSME*
[268] *Department of Mines and Geology*
[269] *Brief Industrial profile of Hamirpur District, MSME*
[270] *Himachal Statistical handbook*
[271] *Brief Industrial profile of Hamirpur District, MSME*

Existing	Thrust areas Identified for Promotion
(i) Agro based (ii) Wood/wooden based furniture(iii) Metal based (steel fabrication), (iv) Paper & Paper products (v) Woolen, Silk & artificial Thread based clothes (vi) Ready-made garments & embroidery (vii) Rubber, Plastic & petro based (viii) Leather based (ix) Chemical/Chemical based	Paper and paper products, Textiles, Food and Fruit processing, Wooden products, Medicine, Cement plants, Leather and Rexine Products, Chemical products, Electrical/Electronic Products

Source: Brief Industrial profile of Hamirpur district, MSME

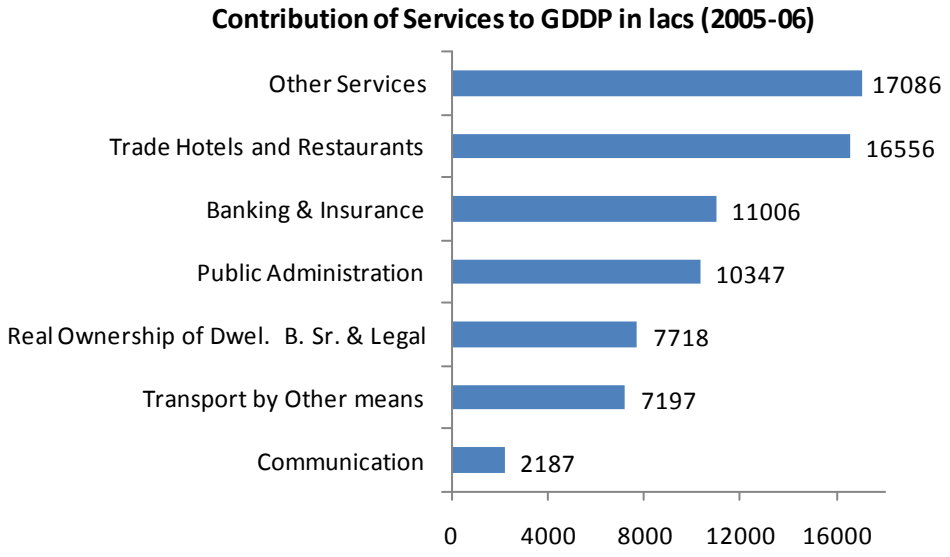
7.3.3.3 Services Sector

Hamirpur district has gradually become a trading hub which has given way to an active tertiary sector. The sector contributed to 44 percent[272] of Hamirpur GDDP during 2005-06.

Services sector in the district is dominated by trade, hotel and restaurants and public administration[273].Trade activity includes wholesale and retail trade in all commodities whether produced domestically, imported or exported. It also includes the activities of purchase and selling.

Tourism is another important sector that contributes significantly towards the tertiary sector in Hamirpur. Hamirpur has very less direct potential of tourism, but due to its specific location between the two National Highways of the State, Central place of state and existence of two major pilgrimage shrines of Northern India i.e. Baba Balak Nath Temple, Deotsidh and Jawala Ji Temple, Jawalamukhi at very marginal distance from town, it attracts the tourists for comfortable & middle way stay. The district has plenty of natural attractions, pilgrimage/ heritage attractions and institutional attractions.

Composition of services economy in the district is presented in the table below[274].



[272] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[273] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[274] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm

Hamirpur has a variety of government hotels and resorts like Hamir Hotel, Kamal Taj Hotel, Sai Guest House, and Heera Heights. The number of restaurants and hotels in Hamirpur has gone up from 262 to 500[275] at a compounded annual growth rate of 7.4% from 2001-2010.Out of these, there are 33 registered Hotels and guest houses with a bed capacity of 509.[276] These restaurants and hotels employ nearly 402 people.[277]

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was close to 6.75 percent as per 2005-06 estimates. Number of bank branches in the district has grown at 5.98 percent CAGR between 2009 and 2011[278] with respect to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately INR473 crores was given in the district by the commercial and State banks in 2011[279]. During the same time the deposits in these banks were approximately INR2, 510 crores.

The growth in the number of banks from 2009-2011 in the district Vis a Vis the state are highlighted below.

	2009	2010	2011
Hamirpur	65	70	73
Commercial banks/lacs population	14	15	16
Himachal Pradesh	980	1053	1105
Commercial banks/lacs population	16	17	18

Source: Himachal Pradesh district statistical handbook, Himachal Socio-economic profile

Healthcare coverage in terms of population served, stands at 746 persons per bed, is higher than Himachal Pradesh which is 942 people per bed. District has 26 PHCs and 5 CHCs[280]

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Hamirpur[281]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**2**	**-**
Dispensaries	**0**	**-**
CHC/RH	**5**	**-**
PHC's	**26**	**-**
Total	**33**	**482**

Based on the interaction with the local people, DIC and technical institutes present in the state, following observations were made for the services industry[282]:

[275] *Hamirpur District statistical handbook*
[276] *Directorate of tourism, Himachal Pradesh*
[277] *Hamirpur District statistical handbook*
[278] *Himachal Statistical handbook*
[279] *Himachal Statistical handbook*
[280] *Himachal Statistical handbook*
[281] *Himachal Statistical handbook*

Thrust areas Identified for Promotion
(i)Mobile repair (ii) Repair of electrical appliances (iii) Computer repair (iv) Auto repair (v) Book binding (vi) Beauty parlour (vii) Cyber café

7.3.4 Workforce Distribution in the district

7.3.4.1 Current Employment Scenario in Hamirpur

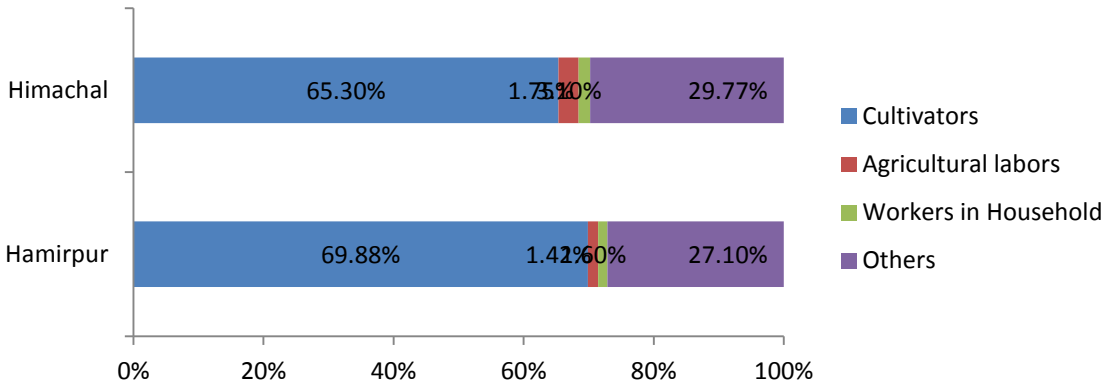
According to the Census 2001 the total worker population in Hamirpur was 2.05 lakhs, out of which 1.05 lakhs were women and 1lacs were men. Of the total women worker population, only 23.31 percent females were main workers, 25.43 percent were marginal workers and 51.26 percent were non-workers. Similarly, out of total men workers, 35.35 percent were main workers, 15.55 percent were marginal workers and 49.1 percent were non-workers[283]. This clearly indicates the wide difference of participation between women and men in the economy.

Region	Total workers	Main workers	Marginal workers	Non-workers
Hamirpur	49.77%	29.05%	20.73%	50.23%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (49.77 percent) is marginally higher than the state average of 49.24 percent. As per the Census 2001 data, the female worker participation rate is around 48.74 percent. This has significantly improved since 1991 when it was only 39.81 percent. However, high share of non working population still remains especially in the women category, which needs to be addressed through adequate training for self employment generation.

Distribution of Workforce in Hamirpur



Historically, Hamirpur has been a supplier of manpower to the other Himachal districts as well as neighboring states such as Punjab, Haryana and Uttar Pradesh. A large population of the workforce is employed in the Parwanoo, Baddi, Barotiwala and Nalagarh belt of Solan district.

[282] *Brief Industrial profile of Hamirpur district, MSME*
[283] *Gender statistics, Government of Himachal Pradesh*

7.3.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Hamirpur	517,246	272,071	148,245	138,906
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG analysis

7.3.5.1 Incremental Supply of labour force in the district

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.

Hamirpur is expected to witness a growth in supply of 44.3 thousand incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	**Skilled**	**Semi skilled**	**Minimal skilled**	**Skilled**	**Semi skilled**	**Minimal skilled**
Hamirpur	4,339	3,095	939	4,385	3,128	950
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

Source: KPMG analysis

7.3.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Hamirpur 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 Hamirpur.

Sector wise skill level requirements during 2012-22

Sub Sectors	2012-17			2017-22		
	Skilled	Semi-skilled	Minimal skilled	Skilled	Semi-skilled	Minimal skilled
Agriculture & Allied Activities	-	-	(255)	-	-	(251)
Construction based material	11	43	54	14	58	72
Construction	3100	6200	52697	3556	7112	60452
Healthcare	237	950	-	269	1078	-
Transportations and Logistics	76	1208	1437	82	1295	1541
Retail	30	30	238	26	26	211
Hospitality	108	162	810	96	145	723
Communication	488	1463	-	489	1466	-
Banking and Financial Services	1060	3181	-	1142	3426	-
Education and Training	37	248	-	6	40	-
Total*	5162	13546	55059	5698	14715	62836

Source: KPMG Analysis

* Please note: Only the key industries have been highlighted individually in the section. Hence, the total may not add up.

7.3.6 Human Resource Development in the District

7.3.6.1 Current State of Workforce Development

Hamirpur is considered as an educational hub of Himachal Pradesh. It is home to National Institute of technology, a national level public technical university funded by the Government of India, Netaji SC Bose Memorial Government Postgraduate College and Government polytechnic college.

Comparison of higher education infrastructure in Hamirpur with Himachal is presented in the table:

Category of College	Himachal	Hamirpur
Arts, Science and Commerce	101	10
Engineering/Technology/Architecture	20	2
Medical (Allopathic/Dentistry/Homeopathy)	7	-
Nursing	12	1

Pharmacy	14	2
Management/Business Management	39	3
Education/Teacher training	84	12
Law	8	1
Others (including teacher training institutions, Polytechnics etc)	105	9
Total	409	40
Density(Colleges per Thousand Population)	0.06	0.088

The district also accounts for significantly high proportion of vocational education capacity in Himachal Pradesh. Hamirpur has 5 polytechnic institutes and 24 ITI's (both private and government). Accessibility of vocational education in Hamirpur is therefore clearly better than the state average.

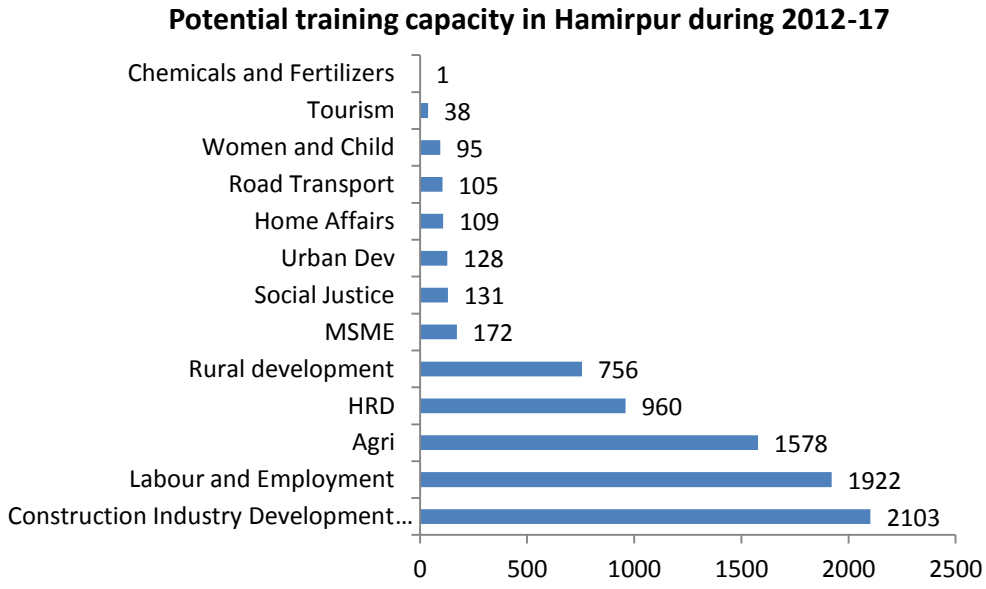
Details of vocational education infrastructure in Hamirpur is presented in the table:

District Wise ITI/ITC Infrastructure (2011)[284]								
	Number				**Sanctioned Intake**				**Density(Seats per Thousand Population)**
Region	**Govt ITI**	**Private ITI**	**Total**		**Govt ITI**	**Private ITI**	**Total**		
Himachal	84	120	204		13,310	10,459	27,364		4
Hamirpur	6	18	24		866	1,900	2,766		6.09

[284] *http://www.techeduhp.com/itc.html*

7.3.6.2 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 30 thousand people in total can be trained incrementally during the five year period of 2012-17. Construction industry development council and Labour and Employment have significant training mandates in the district.



7.3.6.3 Students Interaction outcomes-Youth Aspirations

Students in the ITI were noted to be coming from a middle class background with a family income between INR 10,000 to 15,000 per month. Most students were open to migrate for job opportunities. Students perceive polytechnic to be a better option as the ITI was only their backup choice. This is due to the better salaries given to the Polytechnic students. All students expected a salary in the range of INR 8,000 to 12,000 and a government job was seen as their first preference. Students do not want to work in the private sector because entry level salaries are low which doe s not commensurate with the amount of work assigned to them.

7.3.6.4 Skill mapping and developmental concerns

Hamirpur is not a very industrialized district. There is only one large scale industry which manufactures cement. However, there are a number of Small scale, Handicrafts, Handlooms and Khadi & village industries. People from the district often migrate to border districts like Solan which has ample opportunities to work in the manufacturing sector. Agriculture is the way of life for most people in Bilaspur and they rely on traditional means of farming. ACC cement is the biggest job provider in Bilaspur. The district lacks licensed heavy equipment drivers which are often needed in the Cement industry and hence hires them from neighboring states like Punjab

Based on the interactions with the local industries, government departments, local population and technical institutes following key observations were derived across the prominent industry of Hamirpur

Industry	Skill study outcomes
Automobile	**Key skill requirements**: Denting and Painting, Electrician, Auto electrician, Mechanic Motor vehicle

	Skill deficits: Auto electrician, MMV **Current status**: Hiring is mainly done from Polytechnics and ITI's. The surveyed company recently hired 35 ITI certificate holders. While the course for mechanic motor vehicle is available at the ITIs the industry faces a gap in skilled labour at specific intervals. Thus they have to provide them in house training. Employment is carried out through the employment exchange (1st preference) and newspapers advertisement. During job fairs, companies from other districts also participate and hire students from Hamirpur, which students also prefer(migration), thus the demand is not fulfilled locally
Pharma	**Key skill requirements:** Electrician, motor-mechanic, Process Operator, Packaging Operator, Process Technicians, Lab QC Technicians -Lab Technicians (Analytical), R&D Technicians, Pharmacist, Fitter, Mechanical Technician, Maintenance Incharge **Skill deficits:** Maintenance in-charge, Bio-instrumentation and Pharmacists **Current status:** No requirement seen from ITI's as none cater to the industry. Companies hire from the ITI's only for the helpers position. Attrition is low as compared to the other industries. Most of the jobs are through referral system in this sector

8.1 District specific recommendations

Hamirpur is a small district which has a poor industrialization growth. There is no scope for vendorisation/ancillarisation as there are no medium or large industries in the district. Significant opportunities for skill development are mainly across the hosiery products sector. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- High employment potential in service sector-**Mobile/Computer/Auto repairing, Food Processing, Wooden furniture and Textiles**
- Metal based **(Steel fabrication)** & **Black Smith** will witness high demand of skilled and semi skilled manpower.
- Despite of increased fruit production, the horticulture in the district is at an infant stage and its production is not to the level of commercial scale.
- Only 27.7% land are irrigated land in Hamirpur hampering the agricultural output of the district.
- Hamirpur being the most literate district in Himachal Pradesh also has a high penetration of higher education which means it can be a source of supply of skilled manpower to the other districts.
- Poor branding of the ITI's and the ITC in the district.
- Low motivation of the existing teachers to teach in the government institutes.

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

Stakeholder	Action Points for Stakeholders

NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors
	  ○ Auto repair mechanics with focus on Auto electricians
	  ○ Food processing
	  ○ Computer repairing
	• Forging partnerships with leading institutes like NIT Hamirpur to create an inclusive ecosystem for skill development. This may involve teacher training.

	• Set up camps in schools to bring a paradigm shift in perception of youth for vocational training. This could be materialized by creating a scholarship fund for high achieving students interested in taking up skill related courses. • Developing and implementing competency standards for key strategic skills to serve as a guideline for skills training providers and a formal reference for training quality.
District Administration	• Create an enabling environment such as an option of taking a loan, in the same way one can, if he chooses to pursue a degree program. This could be done by associating a lead bank with each ITI in the district which could also fund the students who wish to start their own ventures. • Setting up small scale industries next to rural areas which will be responsible for the employment generation of all the rural people of that particular area & simultaneously rural people will serve as a market to the industry. • Make effective use of Public relation officer's to promote campaigning for admitting school dropouts in MES courses. The current target oriented approach is benefitting only a certain strata of the beneficiaries (people looking to up skill themselves) • Minimum apprentice wages should be increased to make the trainings more attractive for the students. These could be set by the District Commissioner. • Creating an infrastructure for Skill development of teachers (such as a tool room) within the district and make trainings mandatory for all the trainers. Optionally, the same could be started at the State level. • Maintaining a centralized online database management system of students with their detailed qualification thereby helping industries in exploring the right talent, henceforth increasing employment.
Industry	• Support the institutional management committee under the PPP scheme to make it more effective and ensure adequate placements and effective training. • Participate in training the ITI trainers to improve the quality of training delivery and relevance of pedagogy to industry. • Industry may support students through regular visits and machinery usage
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district. Curriculum should be designed and aligned in such a way that the student gets an option for placement • Private players may develop curriculum for training students on soft skills. Further, they may forge partnerships with existing government ITI's and focus of soft skill training to students as well as teachers. This would open another revenue stream for these players. • Career counselling classes should be introduced. • Curriculum reformation to be done to match industry needs with an emphasis on shorter courses; on the job trainings; field visits to be a part of the course.

7.4 Skill Gap Study of District of Kangra

7.4.1 Administrative profile

Kangra is a district in Himachal Pradesh with its headquarters in Dharamshala. It is bounded by the Chamba and Lahaul and Spiti district in the north, Kullu district in the east, Mandi district in the south-east and Hamirpur and Una district to the south.

Kangra is the fourth largest district of Himachal Pradesh in terms of geographical area. The area of district is 5,739 sq km, which accounts for 10.3 percent of the total share of the state area[285].

Administratively, the district has been divided into eight sub divisions (Kangra, Dharamshala, Nurpur, Dehra, Jaisinghpur, Palampur, Baijnath and Jawali); fifteen tehsils and fifteen blocks[286].

7.4.2 Social Profile

7.4.2.1 Demographics

As per Census 2011 estimates Kangra, has a population of around 15.07 lacs[287] which forms 22 percent of the total state's share. The district has a population density of 263 people per sq. km[288], which is much higher than the state average density of 123 per s.km. The high concentration of population in the district can be attributed to the fact that the district is an important religious tourism destination and has significant employment opportunities. Kangra is also endowed with a number of SME's which is also the reason for high population concentration

. The district has witnessed decrease in female composition of population during 2001-11. However, adult gender ratio of Kangra district has decreased from 1025 females per 1000 males[289] in 2001, to 1013 females per 1000 males[290] in 2011. There has been an increase in the child (0-6 age group) gender ratio from 836 females per 1000 males[291] in 2001 to 873 females per 1000 males[292] during the same period. Kangra has a reserved caste population of 20.88 percent[293] as compared to 24.72 percent of Himachal Pradesh as per Census 2001.

7.4.2.2 Literacy

The district has a higher literacy rate of 86.49 percent[294] as compared to the state's average of 83.78 percent[295]. The higher rate of literacy in the district can be accounted to economic growth and political importance which has, attracted significant private and public participation in the school segment. There are 2,562[296] schools in the district, out of which around 17 percent are located in the Nurpur and Pragpur block alone. As per 2011 estimates, the drop-out percentage of children in both primary and upper primary level is lower than the state average.

Comparison of district school education statistics with overall state details is presented in the table

[285] *Himachal statistical handbook*
[286] *www.hpkangra.nic.in*
[287] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[288] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[289] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[290] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[291] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[292] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[293] *Himachal Statistical handbook*
[294] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[295] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[296] *Kangra district statistical handbook*

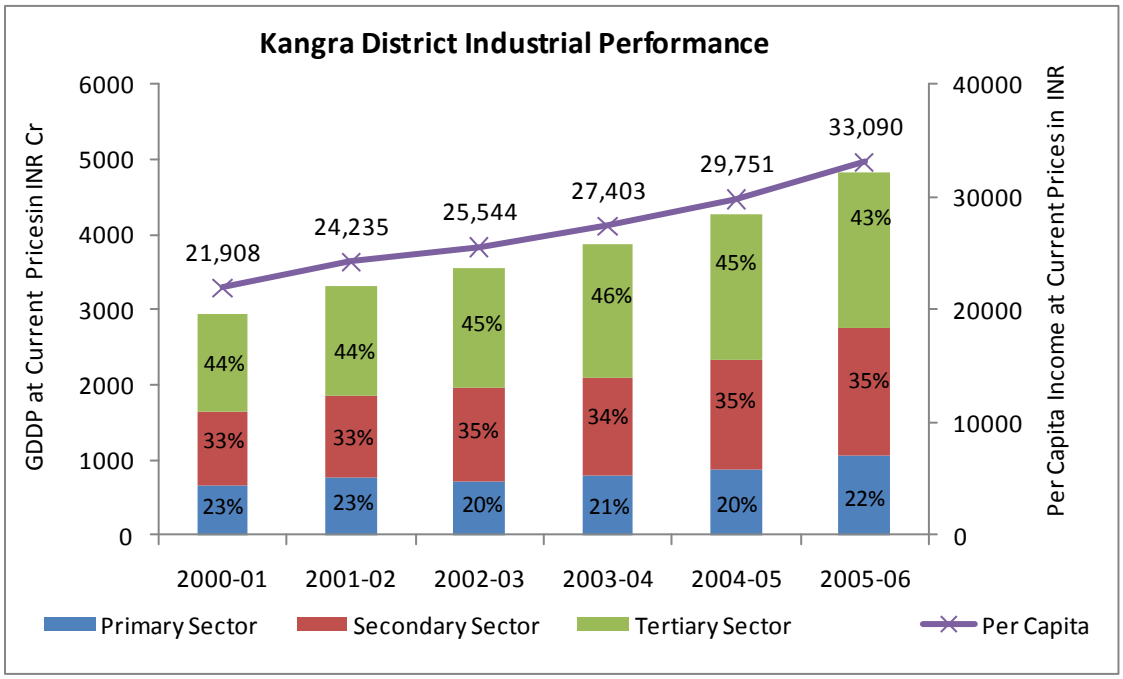
Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Kangra	1,21,652	0.21%	81,337	0.03%
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

Source: RMSA and SSA

7.4.3 District Economy

The economy of Kangra district is primarily agrarian. Tea cultivation plays a vital role in the economy. The district economy has witnessed a higher cumulative growth of 8.66 percent[297] during 2000-06 in comparison to the state average of 11.65 percent during the same period[298]. Secondary sector constitutes to over 35% percent of district economy, indicating an active manufacturing sector. Kangra is a thriving tourist destination with both religious and adventure tourism and therefore has a significant share of tourists visiting the district. Further, per capita Income of Kangra has registered a cumulative growth of 8.6 percent[299] during 2000-06 compared to the state compounded annual growth rate of 6.87 percent during the same period.[300]

Sub-Sector wise GDDP growth trends of Kangra are presented in the graph below.



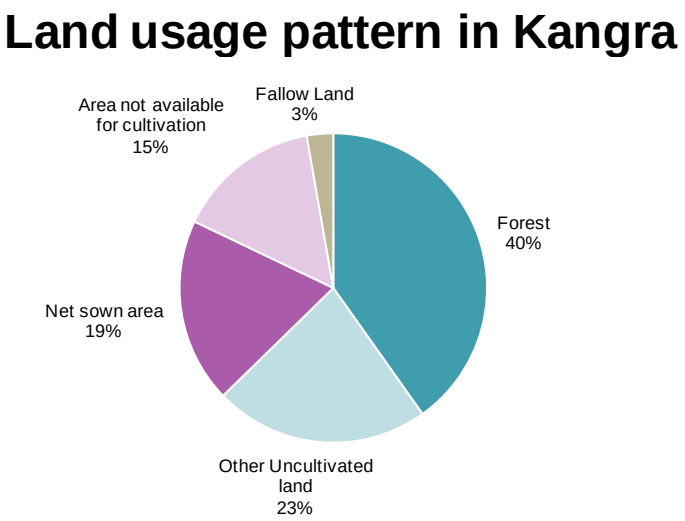
[297] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[298] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[299] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[300] http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf

7.4.3.1 Agriculture and allied sectors

Around 95 percent of the district population that lives in the rural areas is dependent on agriculture for their source of income. Kangra has 37.69 percent[301] of its total geographical area under cultivation. According to the available data of 2005-06 from planning commission primary sector contributes to around 22 percent towards district GDP. The main agricultural crops are Maize, Barley, Paddy, Pulses, Potato, Oil seeds. Fruits such as Apple, Nuts and dry fruits along with other sub-tropical fruits are also grown in the district.

The total cultivated area in Kangra for 2009-10 is around 217,737 hectares[302] and out of this 43.8 percent is used for Wheat cultivation[303]. Maize is another important crop of the district and 26.7 percent of the total cultivated area falls under this crop. The district is dependent various sources of irrigation like canals, ponds and ground water from tube-wells. As per available data from the district report for the year 2008-09, around 38,880 ha[304] of land is irrigated through these alternative channels. With 94.05 percent of net sown area in the district exposed for multiple cropping[305], there is a need to promote minor irrigation techniques to sustain agricultural growth in Solan.

District land usage pattern is presented in the chart[306].



The district has a high forest cover of 40 percent in comparison to the state average of 19 percent.

Apple farming is an important activity of the district. In 2010-11 approximately 431 hectares of land was under Apple cultivation producing 425 metric tonnes of apple.

Kangra district is endowed with different sources for fishes. In 2010-11, approximately1, 754 metric tons of fish in was produced in the district. This is approximately 23.76 percent of the total Himachal's produce[307].There are 5,837 licensed fishermen in the district when compared to 12,343 in the state. [308]

[301] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[302] *Kangra district statistical handbook*
[303] *Kangra district statistical handbook*
[304] *Kangra district statistical handbook*
[305] *KPMG analysis (calculated as Area available for multiple cropping divided by Net sown area)*
[306] *Kangra district statistical handbook*
[307] *Himachal Statistical handbook*
[308] *Kangra district statistical handbook*

There are 599 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of INR9, 317.18 lacs.[309]

7.4.3.2 Industry

There are seven industrial areas in Kangra, namely, Sansarpur Terrace, Bhagwan, Bain attarian, Nagri, Dhaliara, Raja Ka Bag and Jawali. However, the main concentration of Industries is noticed in the S/Terrace in which 361 plots have been alloted to different industries. The area is emerging as the pharmaceutical industry capital of India. The major investors in this belt are Deepak power and HRA paper mill. There are 3 clusters of MSE in the district Kangra i.e Iron and Steel at Damtal, Pharma at Sansarpur terrace and steel furniture at Kangra.

The district has no significant major mineral but minor minerals like bajri, sand, boulders and slate are available here[310]. Major exportable item from the district are fabric and ayurvedic medicines.

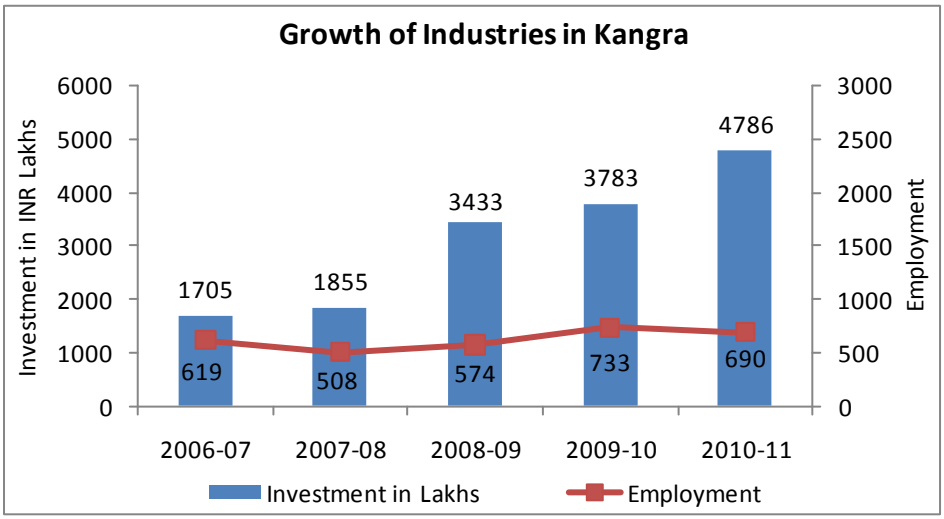
Forests play an important role in the economy of the district and major forest produce that comes forests are in the form of timber, firewood,katcha,resin, fodder and herbs. M/S Met trade India Limited at Damtal and M/S Steel Authority India Limited(SAIL) (CPU) at Kandrori are the large scale industries/ public sector undertakings in the district.

A trend for setting up Fruit & Food and Ayurvedic medicines based industries in Kangra has also been noticed recently.

There is a limited scope of ancillarisation of the industry in the district as there are only two large scale units in the area. As per 2011 data, 110 small scale factories were registered in the district with an investment of INR18.28 crores, employing around 557 people.[311]

Between 2006-07 and 2010-11, Investments in the district have grown at a CAGR of 29.4% adding an additional employment of over 3124 during the period.

Employment trends in MSME segments over the recent years are presented in the chart.[312]



Based on discussions with District Industries Center, following potential MSME thrust areas were identified in Kangra district.

[309] *Himachal Statistical handbook*
[310] *Department of Mines and Geology*
[311] *Himachal Statistical handbook*
[312] *Brief Industrial profile of Kangra District, MSME*

Existing	Thrust areas Identified for Promotion
(i) Agro based (ii) Engineering units (iii) Metal based (Steel Fabrication) (iv) Wood/wooden based furniture (v) Mineral based (vi) Chemical/Chemical based (vii) Repairing & servicing (viii) Electrical machinery and transport equipment (ix) Paper & Paper products	Food and Fruit processing, Dairy products, Wood and wooden products, Ayurvedic medicine

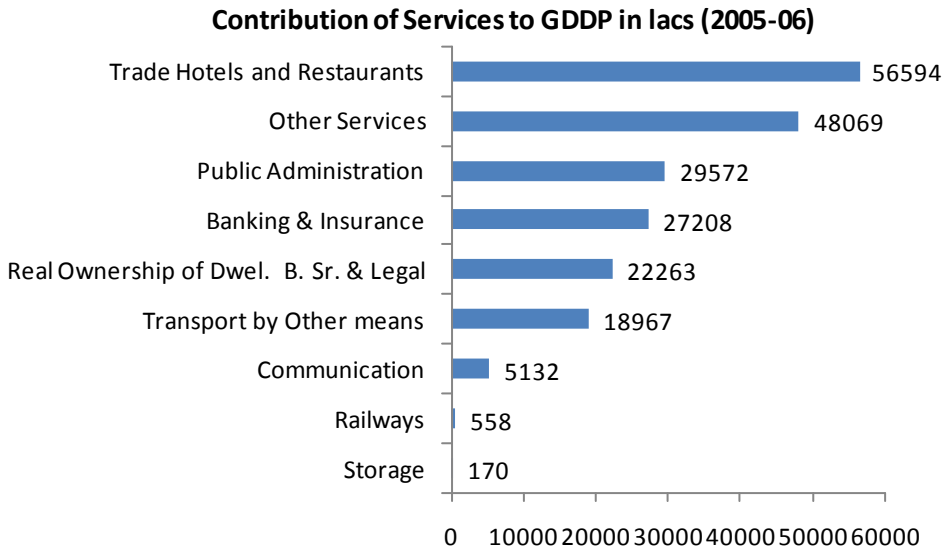
Source: Brief Industrial profile of Kangra district, MSME

7.4.3.3 Services Sector

Kangra district has given way to an active tertiary sector. The sector contributed to 43 percent[313] of Kangra GDDP during 2005-06.

Services sector in the district, dominated by trade, hotel and restaurants and public administration[314].Trade activity includes purchasing and selling of all commodities whether produced domestically, imported or exported. Tourism is another important sector that contributes significantly towards the tertiary sector in Kangra. The district had a share of12.4 percent of the total domestic tourists who travelled to Himachal Pradesh in 2011.This positions Kangra at number three only after Shimla and Kullu.[315] Places of tourist importance in the district include Behna Mahadev – the famous gable roofed shrine in the Satluj valley, Bajreshwari Temple, Brijraj Behari Temple, Kangra Art Gallery, Kangra Fort, Karaeri Lake, International Himalayan Festival, Masrur Temple, Sujanpur Fort and the Judges Court. With the presence of a number of trekking trails, Kangra is also famous for trekking.

Composition of services economy in the district is presented in the table below[316].



Kangra has a mix of old and new hotels and resorts like Hotel Maurya, Hotel the Grand Raj, Yatrika Hotel, Hotel Laj, Kashmir House TDC, White Heaven Estate. The number of restaurants and hotels in Kangra has gone up from a mere 782

[313] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[314] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[315] *Himachal statistical handbook*
[316] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*

to 980[317] at a compounded annual growth rate of 2.28% from 2001-2011. Out of these there are 361 registered Hotels and guest houses with a bed capacity of 7,839.[318] These restaurants and hotels employ nearly 548 people.[319]

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was 5.63 percent as per 2005-06 estimates. Number of bank branches in the district has grown at 6.5 percent CAGR between 2009 and 2011[320] with respect to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately INR1, 586 crores was given in the district by the commercial and State banks during 2010-11[321]. During the same time the deposits in these banks were approximately INR7, 069 crores.

The growth in the number of banks from 2009-2011 in the district vis-a-vis the state are highlighted below.

	2009	2010	2011
Kangra	186	200	211
Commercial banks/lacs population	12	13	14
Himachal Pradesh	980	1053	1105
Commercial banks/lacs population	16	17	18

Source: Himachal Pradesh district statistical handbook, Himachal Socio-economic profile

Healthcare coverage in terms of population served, stands at 707 persons per bed, is slightly higher than Himachal Pradesh which is 706 people per bed. District has 80 PHCs and 14 CHCs[322]

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Kangra [323]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**9**	**-**
Dispensaries	**0**	**-**
CHC/RH	**14**	**-**
PHC's	**80**	**-**
Total	**103**	**2,131**

Based on the interaction with the local people, DIC, local population and technical institutes present in the state, following observations were made for the services industry[324]:

[317] *Kangra District statistical handbook*
[318] *Directorate of tourism,Himachal Pradesh*
[319] *Kangra District statistical handbook*
[320] *Himachal Statistical handbook*
[321] *Himachal Statistical handbook*
[322] *Himachal Statistical handbook*
[323] *Himachal Statistical handbook*
[324] *Brief Industrial profile of Kangra District, MSME*

Thrust areas Identified for Promotion
(i) Fast Food (ii) Cyber café (iii) Travelling agencies (iv) Ropeways (v) Restaurants (vi) Mobile repair (vii) Screen printing (vii) Bee keeping and Dry cleaning

The large number of tourists visiting Kangra creates new opportunities for the establishment of service industry in the district.

7.4.4 Workforce Distribution in the district

7.4.4.1 Current Employment Scenario in Kangra

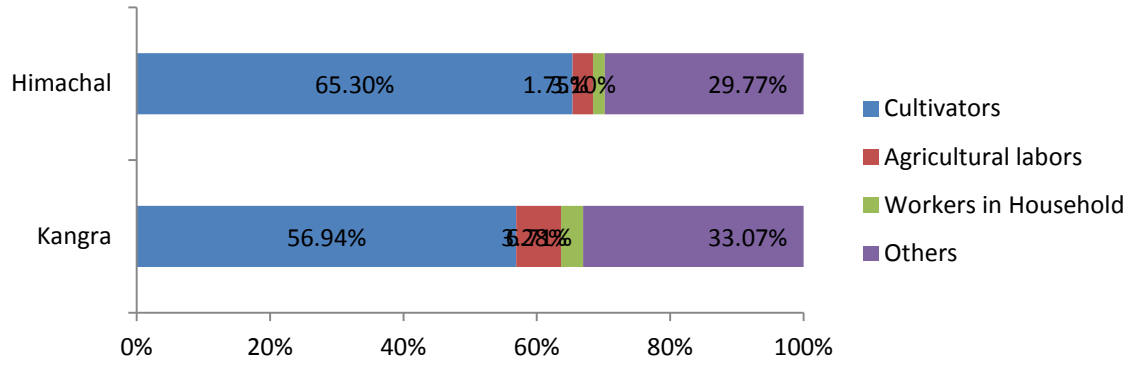
According to the Census 2001, the total worker population in Kangra was 5.89 lakhs, out of which 2.5 lakhs were women and 3.35 lakhs were men. Of the total women worker population, only 13.93 percent females were main workers, 23.48 percent were marginal workers and 62.59 percent were non-workers. Similarly, out of total men workers, 36.63 percent were main workers, 14.1 percent were marginal workers and 49.27 percent were non-workers[325]. This clearly indicates the wide difference of participation between women and men in the economy.

Region	Total workers	Main workers	Marginal workers	Non-workers
Kangra	43.99%	25.14%	18.85%	56.01%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (43.99 percent) is lower than the state average of 49.24 percent. As per the Census 2001 data, the female worker participation rate is around 37.41 percent. This has significantly improved since 1991 when it was only 22.94 percent. However, high share of non working population still remains especially in the women category, which needs to be addressed through adequate training for self employment generation

Distribution of Workforce in Kangra



Historically, Kangra has always been a tourist destination and therefore it attracts a lot of immigrants from the other districts. Majority of this workforce gets employed in the hotels in Mc Leod Ganj and the tea gardens. The maximum inward migration from within the state is noted to be from the Mandi district.

[325] *Gender statistics, Government of Himachal Pradesh*

7.4.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Kangra	1,717,534	903,422	425,101	398,320
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG analysis

7.4.5.1 Incremental Supply of labour force in the district

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.

Kangra is expected to witness a high growth in supply of 1.25 lacs incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	Skilled	Semi skilled	Minimal skilled	Skilled	Semi skilled	Minimal skilled
Kangra	7,656	3,693	12,661	7,738	3,732	12,797
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

Source: KPMG analysis

7.4.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Kangra 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 Kangra.

Sector wise skill level requirements during 2012-22

	2012-17			2017-22		
Sub Sectors	Skilled	Semi-skilled	Minimal skilled	Skilled	Semi-skilled	Minimal skilled
Agriculture & Allied Activities	-	-	(4,362)	-	-	(4,305)
Fabricated metal products	170	680	850	160	639	799
Paper & Paper Products	2	7	8	2	7	9
Chemical & Chemical Products	48	192	240	53	213	266
Mineral Processing	4	15	19	21	84	104
Manufacturing of Engineering Products	59	237	296	65	261	327
Construction	7	13	114	8	15	131
Healthcare	975	3,901	-	895	3,579	-
Transportations and Logistics	211	3,349	3,985	226	3,592	4,274
Retail	147	147	1,174	131	131	1,044
Hospitality	13	20	100	12	18	89
Communication	1,247	3,742	-	1,250	3,749	-
Banking and Financial Services	3,819	11,456	-	4,113	12,338	-
Education and Training	118	792	-	14	95	-
Total	6835	24615	2504	6968	24799	2836

Source: KPMG Analysis

* Please note: Only the key industries have been highlighted individually in the section. Hence, the total may not add up.

7.4.6 Human Resource Development in the District

7.4.6.1 Current State of Workforce Development

Largely a tourist destination, Kangra is also a home to a number of institutes of higher education's with a very high penetration of colleges in comparison to state average. Dr. Rajendra Prasad Medical College, GNM Nursing school, MCM DAV College are some of the renowned colleges of the district.

Comparison of higher education infrastructure in Kangra with Himachal is presented in the table:

Category of College	Himachal	Kangra
Arts, Science and Commerce	101	22
Engineering/Technology/Architecture	20	2
Medical (Allopathic/Dentistry/Homeopathy)	7	1
Nursing	12	8
Pharmacy	14	-
Management/Business Management	39	5
Education/Teacher training	84	19
Law	8	-
Others (including teacher training institutions, Polytechnics etc)	105	18
Total	409	75
Density(Colleges per Thousand Population)	0.06	0.05

The district also accounts for significantly high proportion of vocational education capacity in Himachal Pradesh. Kangra has 3 polytechnic institutes and 37 ITI's (both private and government). Accessibility of vocational education in Kangra is lower than the state average due to a very high population of the district.

Details of vocational education infrastructure in Kangra is presented in the table:

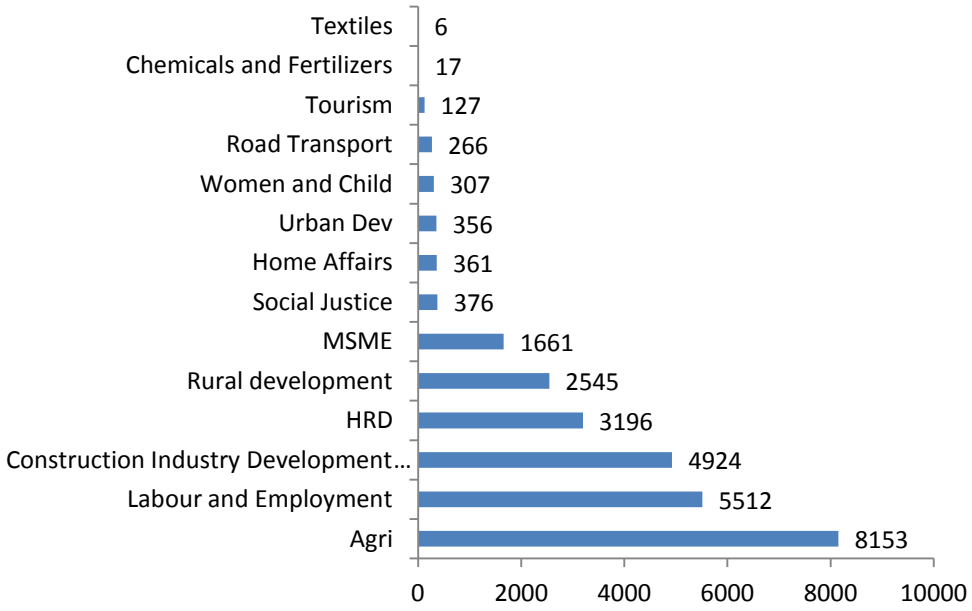
District Wise ITI/ITC Infrastructure (2011)[326]									
	Number				Sanctioned Intake				Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total		
Himachal	84	120	204		13,310	10,459	27,364		4
Kangra	14	23	37		1,906	1,989	3,895		2.58

[326] http://www.techeduhp.com/itc.html

7.4.6.2 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 30 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Labour and Employment has significant training mandates in the district.

Potential training capacity in Kangra during 2012-17



7.4.6.3 Students Interaction outcomes-Youth Aspirations

Students in the district showed higher preference towards government job over private owing to higher job security and salary. Students were also open to migration to the other districts or states; however they appeared to be confident of finding jobs within the industrial belt of Kangra. Most students felt that Polytechnics students are given higher preference than ITI students by the industry and the same is reflected in the salaries offered. Students of the districts appeared to have high awareness in terms of career prospects. Most youth were seen to prefer salaried job over self employment.

7.4.6.4 Skill Mapping and Developmental concerns

Based on the interactions with the local industries, government departments, local population and technical institutes following key observations were derived across certain industries.

Industry	Skill study outcomes
Ayurvedic Medicines	**Key skill requirements**: Packaging **Skill deficits:** None **Current status**: Majority of the labour required is unskilled (10th pass or above) and is involved in packing or moving operations. Very few electricians and machinists (ITI diploma holders) are required. Technical manpower includes B.Sc graduates working at the supervisor level. The industry could benefit with more focus on Herbal plant extraction research at university level.
Fruit Processing	**Key skill requirements:** Juice Extraction, Packaging, Storing, Boiler attendants, Graters and Sorters

	Skill deficits: Boiler attendants **Current Status:** Unskilled labour (mostly below 8th pass) is hired on a seasonal basis. Minimal technical staff (Fruit Technologist – graduate) is hired. Most operations are done using manual labour with low usage of technology.
Flour Mills	**Key skill requirements:** Electrician, Welder, Turner, Rollers machine operator, Machinist **Skill deficits:** Rollers machine operator **Current Status:** At present only unskilled labour (10th or 12th pass) is hired. On the job training is provided to the workers. The industry has had no interaction with the ITIs in terms of hiring, apprenticeships or in plant training. Most labour is hired through an external contractor
Tea Processing	**Key skill requirements**: Electrician, Fitter, Turner, rolling machine operator, Fermentation **Skill deficits:** All **Current status:** Majority of the labour hired is involved in picking operation in the plantations. The labour is completely unskilled and is hired on seasonal basis (6 months). The industry finds it difficult to find Himachali labour for these operations since they are perceived to be tiring and difficult. A significant portion of the labour is hired from West Bengal. The industry in Himachal prefers to hire experienced workers for the tea processing activities. ITI diploma holders are not preferred since they have a higher attrition rate. Very few (1-3) employees working at the supervisor level in a plant take relevant courses in tea production, mostly from Darjeeling or Assam. At present, no courses in tea production are available in the state.

8.1 District specific recommendations

Kangra is an industrially prosperous district with significant commercial activity and has significant opportunities for skill development mainly across the manufacturing and tourism sector. The tea cultivation also needs attention as the climate is conducive to its cultivation. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- High employment potential in manufacturing sector-**Agro based, Fruit processing, Engineering units, Metal based including steel fabrication** and **Wooden furniture**
- **Transport and Logistics** will witness high demand of skilled and semi skilled manpower with the industrial growth
- The growth in industrial development in Kangra has spurred indirect employment demand in certain unorganized sectors like **security services and facilities management**
- Limited irrigation facilities hampering the agricultural output of the district
- **Tea gardens** have a very good scope in the district as the climate is conducive for tea cultivation
- Service sector largely dominated by **Religious tourism and trade and commercial activities.**
- A significant number of youth joins the Indian army forces (highest in Himachal Pradesh) in the Dogra regiment
- Low penetration of technical and higher education.
- Poor branding of the ITI's and the ITC in the district.
- Low motivation of the existing teachers to teach in the government institutes.

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

Stakeholder	Action Points for Stakeholders

NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors
	  ○ Fruit processing
	  ○ E-surveillance and security services
	  ○ Training for joining Army
	  ○ Tourism
	  ○ Tea cultivation
	  ○ Focus should also be to train skilled manpower in new ways of Welding such as MIG, TIG and Arc welding. Current ITI's have a main focus on Gas welding and a limited focus on MIG/TIG
	• Forging public private partnerships with leading private sector firms in Kangra to create an inclusive ecosystem for skill development.
	• Set up camps in schools to bring a paradigm shift in perception of youth for vocational training.

District Administration	• Create an enabling environment such as an option of taking a loan, in the same way one can, if he chooses to pursue a degree program. • Associate lead banks with the ITI to fund student for Self employment initiatives. • District Commissioner may fix rates for the Apprentices in the district. • Make effective use of Public relation officer's to promote campaigning for admitting school dropouts in MES courses. The current target oriented approach is benefitting only a certain strata of the beneficiaries (people looking to up skill themselves) • Department of agriculture may promote Tea cultivation and provide trainings to the rural youth for leaves picking amongst others • Creating an infrastructure for Skill development of teachers (such as a tool room) within the district and make trainings mandatory for all the trainers. Optionally, the same could be started at the State level.
Industry	• Support the institutional management committee under the PPP scheme to make it more effective and ensure adequate placements and effective training. • Follow the two pronged approach to start training centers within their own campus and training on specific sector skills and then recruiting the same candidates. • Rewarding the students appropriately who come for In-plant trainings. • Providing regular feedbacks to the students and their teachers in the ITI
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district. Curriculum should be designed and aligned in such a way that the student gets an option for placement • Private players may develop curriculum for training students on soft skills. Further, they may forge partnerships with existing government ITI's and focus of soft skill training to students as well as teachers. This would open another revenue stream for these players.

7.5 Skill Gap Study of District of Kinnaur

7.5.1 Administrative profile

Kinnaur is a district of Himachal Pradesh with its headquarters in Reckongpeo. It is bounded by Lahaul & Spiti district in the north, Kullu district in the northwest, Shimla district in the southwest and an international border with Tibet in the east.

Kinnaur is the third largest district of Himachal Pradesh in terms of geographical area only after Lahaul & Spiti and Chamba. The area of district is 6,401 sq km, which accounts for 11.5 percent of the total share of state area[327].

Administratively, the district has been divided into three sub divisions (Pooh, Kalpa and Nichar); five tehsils (Sangla, Pooh, Nichar, Moorang and Kalpa) and three blocks (Nichar, Kalpa and Pooh)[328].

7.5.2 Social Profile

7.5.2.1 Demographics

As per the Census 2011 estimates, Kinnaur district has a population of around 84,298[329], contributing to 1.2 percent of the total population of Himachal Pradesh. The district population has grown at a decadal growth rate of 7.38 percent in the period 2011-11[330]

The population density of 13 people per sq. km[331] is much lower than the state average density of 123 per sq.km. The low concentration of population can be attributed to the fact that the district has a hilly terrain having very high slopes.

The district has witnessed a decrease in female composition of population during 2001-11. The adult gender ratio of Kinnaur district has decreased from 857 females per 1000 males[332] in 2001, to 818 females per 1000 males[333] in 2011. There has also been a decrease in the child (0-6 age group) gender ratio from 979 females per 1000 males[334] in 2001 to 953 females per 1000 males[335] in the same period. The reserved caste population in Kinnaur is low at 9.73 percent[336] as compared to 24.72 percent for Himachal Pradesh as per Census 2001.

7.5.2.2 Literacy

The district has a lower literacy rate of 80.77 percent[337] , as compared to the state's average of 83.78 percent[338] .The lower rate of literacy can be accounted to high per capita income from Apple farming in the district. Most households are landowners and give less importance to education. There are 271[339] schools in the district, out of which more than 72 percent are located in the Pooh and Nichar block alone. As per 2011 estimates, percentage of drop-outs 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 which contribute to a major share of school dropouts. This migrant labour in the district

[327] *Himachal statistical handbook*
[328] *hpbilaspur.nic.in*
[329] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[330] *Himachal statistical handbook*
[331] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[332] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[333] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[334] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[335] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[336] *Himachal Statistical handbook*
[337] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[338] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[339] *Kinnaur statistical handbook 2011*

mostly comes from Nepal, Uttar Pradesh and Jharkhand to work in the Apple orchards and road construction during the summers.

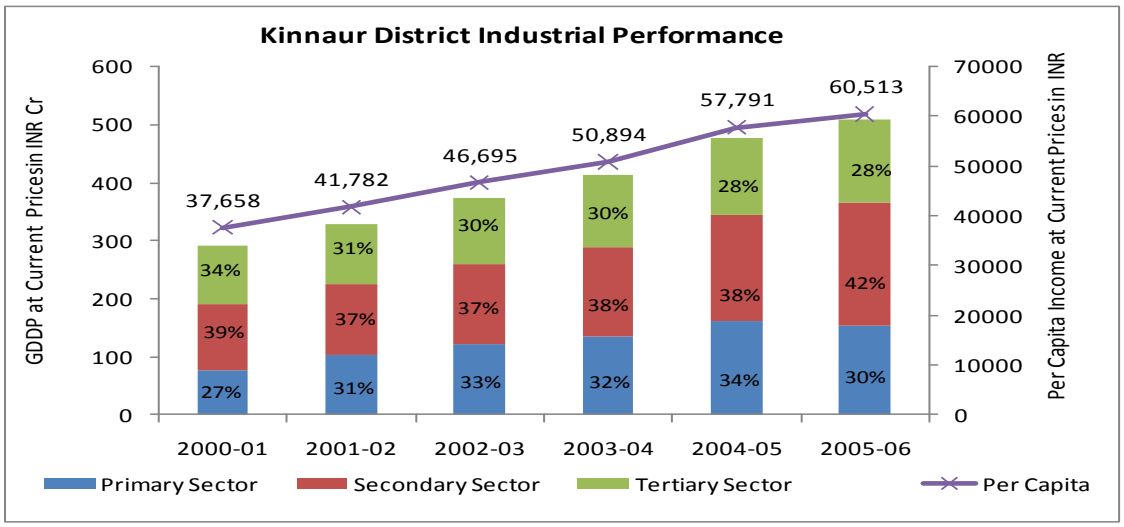
Comparison of district school education statistics with overall state details is presented in the table

Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Kinnaur	7,468	0.11%	4,327	0.03%
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

7.5.3 District Economy

Kinnaur is primarily an agrarian economy; a majority of the population is dependent on agriculture and its allied activities for their livelihood. The district is also known for several Hydro-electric projects that have been set-up over years on the Satluj basin by the companies like Jaypee.[340]The known ones are BASPA I and BASPA II with a total installed capacity of 1000MW. The district economy has witnessed a higher cumulative growth of 9.79 percent[341] during 2000-06 in comparison to the state average of 8.44 percent[342]. The secondary sector constitutes to over 42 percent of district economy, indicating a relatively active manufacturing sector. The sector is mainly dominated by woolen, silk and artificial thread based clothes units along with wood and wooden based furniture and steel fabrication units. The per capita Income of Kinnaur has registered a cumulative growth of 9.95 percent[343] during 2000-06, compared to the state compounded annual growth rate of 6.87 percent during the same period.[344]

Sub-Sector wise GDDP growth trends of Kinnaur are presented in the graph below.



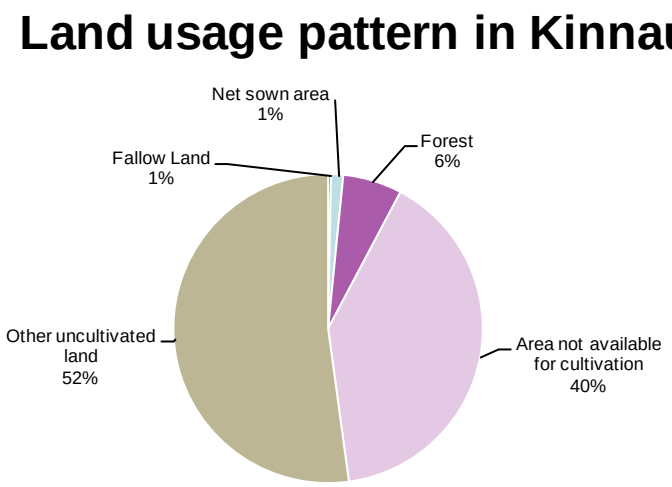
[340] http://himachal.nic.in/tcp/DPSolan.pdf
[341] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[342] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[343] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[344] http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf

7.5.3.1 Agriculture and allied sectors

Kinnaur enjoys the ideal natural conditions to grow multiple crops. It has approximately1.50 percent[345] of its total geographical area under cultivation. According to the available data of 2005-06 from planning commission, Primary sector contributes to around 30 percent towards district GDP. The main agricultural crops are Maize, Paddy, Wheat, Barley, Peas, Rajmah and Potato. The apples, chilgoza (chest nut), almonds, ogla, apricots, grapes and other dry fruits grown here are world famous.

The total cultivated area in Kinnaur for the year 2009-10 is around 9,474 hectares[346] and out of this 10.1 percent is used for Rajmah cultivation[347]. Barley is another important crop of the district and 9.5 percent of the total cultivated area falls under this crop. The district is dependent on various sources of irrigation like canals, ponds and ground water from tube-wells. As per available data from the district report for the year 2009-10, around 4,943 ha [348] of land is irrigated through these alternative channels. With only 19.46 percent of net sown area in the district exposed for multiple cropping[349], there is a need to promote minor irrigation techniques to sustain agricultural growth in Kinnaur.

District land usage pattern is presented in the chart[350].



According to 2009-10 data

The district has a very low forest cover of 6 percent in comparison to the state average of 19 percent as the district has been termed as a snow desert which makes only a few varieties of trees to be able to sustain at high altitudes.

Apple farming is an important activity in the district. In 2010-11, approximately 10,003 hectare of land was under Apple cultivation producing 57,403 metric tonnes of apple.

Kinnaur has some rivers abound in Trout. Pisiculture is an allied activity in the district but there are a very few people engaged in this profession. In 2010-11, approximately 108 kg of fish was produced in the district. There are 27 licensed fishermen in the district when compared to 12343 in the state.[351]

[345] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[346] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[347] *Kinnaur district statistical handbook*
[348] *Kinnaur district statistical handbook*
[349] *KPMG analysis (calculated as Area available for multiple cropping divided by Net sown area)*
[350] *Kinnaur district statistical handbook*

There are 35 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of INR133.77 lakhs.[352]

7.5.3.2 Industry

There is only one industrial area in Kinnaur, namely, Reckong Peo. There are no medium or large scale industries owing to the difficult terrains with altitudes ranging from 1500 to more than 6500 mtrs from the mean sea level. Transportation is another major drawback which keeps companies from setting up their bases in Kinnaur.For almost six months in an year the valley is cut from the main Himachal region due to heavy snows.

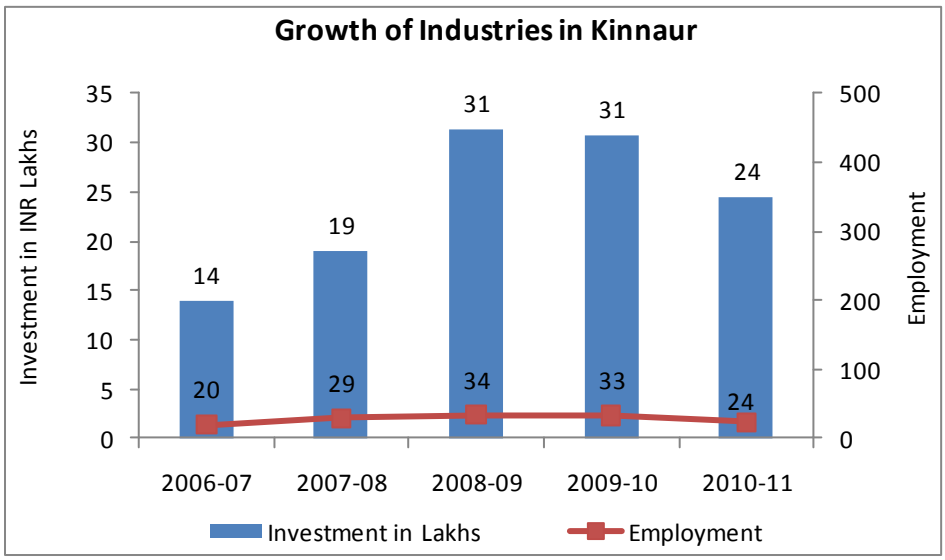
The main reasons of the district being backward industrially is paucity of finance, lack of raw material, lack of markets and traditional outlook of the people.

The district has no significant mineral available. However, minor minerals like Bajri, Sand etc can be found here [353]. There is no major exportable item from the district.

There is no scope of ancillarisation of the industry in the district as there are no large scale units in the area. As per 2011 data, 9 small scale factories were registered in the district with an investment of INR0.36 crores, employing around 29 people. Kinnaur's share in terms of number of registered units was noted to be second lowest in Himachal Pradesh only after Lahaul and Spiti. The micro units in the district mainly comprise of Agro based units, Woolen, silk and artifical thread based clothes, traditional Kinnauri caps,Wood and wooden based furniture and a few Steel fabrication units

Between 2006-07 and 2010-11, there have been incremental investments of 120 lakhs which have created an additional employment of over 140 during the period.

Employment trends in MSME segments over the recent years are presented in the chart.[354]



Based on discussions with District Industries Center, following potential MSME thrust areas were identified in Kinnaur district.

[351] *Kinnaur district statistical handbook*
[352] *Himachal Statistical handbook*
[353] *Department of Mines and Geology*
[354] *Brief Industrial profile of Kinnaur District, MSME*

Existing	Thrust areas Identified for Promotion
(i) Woolen, silk & artificial Thread based clothes (ii) Agro based (iii) Wood/wooden based furniture (iv) Metal based (Steel Fabrication) (v) Repairing & servicing (vi) Ready-made garments & embroidery (vii) Paper & Paper products	Chemical and allied products, Mechanical and allied products, Hosiery and Textiles, Wooden Products, Paper Products, Leather and Rexin Products, Hydel power

Source: Brief Industrial profile of Kinnaur district, MSME

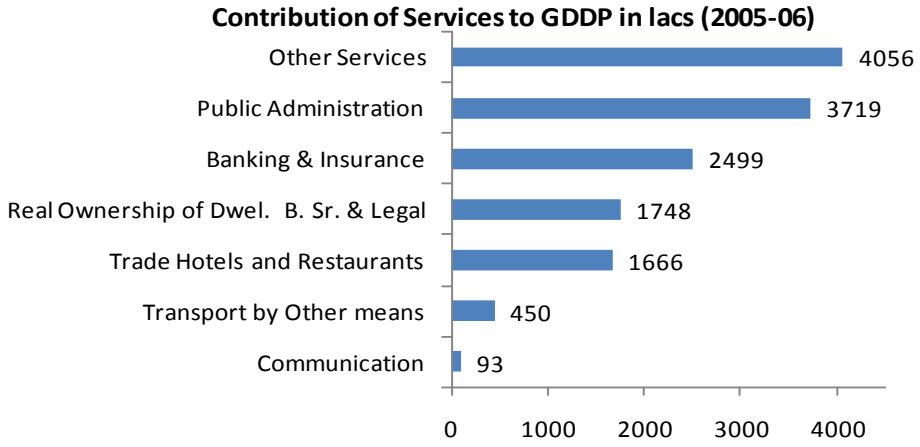
7.5.3.3 Services Sector

Kinnaur district has given way to an active tertiary sector. The sector contributed to 28 percent[355] of Kinnaur GDDP during 2005-06.

Services sector in the district, is mainly dominated by public administration[356].Trade activity includes wholesale and retail trade in all commodities. Tourism is another important sector that contributes towards the tertiary sector in Kinnaur. Although, the district still needs to rebrand it in terms of recall, as it attracted only 3 percent of the total Indian tourists in the state in the year 2011-12[357]. However, there is a lot of scope for activities like camping, mountaineering and other adventure sports.

Places of tourist importance in the district include Nako lake, Sangla and Baspa Valleys (popular as camping sites), Kinnaur Kailash, wild life sanctuaries etc. The district even has the three famous, high mountains ranges i.e. Zanskar, Greater Himalayas and Dhauladhar. The high terrain here gives way to great adventures sports of all kinds.

Composition of services economy in the district is presented in the graph below[358].



Kinnaur has a number of registered hotels and resorts like Himalaya Kalpa, Golden Apple, Kinner Kailash HPTDC, Kailash View, Cedar "N" Snow, Harsha Retreat, Shensha Resorts, J.K. International, Mehta Resorts. The number of restaurants

[355] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[356] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[357] Himachal statistical handbook
[358] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm

and hotels in Kinnaur has gone up from 38 to 58[359] at a compounded annual growth rate of 4.32%from 2001-2011 with a bed capacity of 698.[360]These restaurants and hotels employ nearly 87 people.[361]

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was close to 4.9 percent as per 2005-06 estimates[362]. Number of bank branches in the district has grown at 4.45 percent CAGR between 2009 and 2011[363] compared to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately INR167 crores was given in the district by the commercial and State banks during 2010-11[364]. During the same time the deposits in these banks were approximately INR426 crores.

The growth in the number of banks from 2009-2011 in the district vis-a-vis the state are highlighted below.

	2009	2010	2011
Kinnaur	22	23	24
Commercial banks/lacs population	26	27	29
Himachal Pradesh	980	1053	1105
Commercial banks/lacs population	16	17	18

Source: Himachal Pradesh district statistical handbook, Himachal Socio-economic profile

Government has initiated several measures to promote self employment in the district. Some departments like DRDA are actively running RSETI schemes in Kullu (Kullu is the feeding center for Kinnaur and Lahaul and Spiti), where locals are encouraged to participate and do short term courses on Mobile repairing, Beautician, Auto repairing etc. and generate self employment opportunities in the service sector.

Healthcare coverage in terms of population served, stands at 341 persons per bed, is much lower than Himachal Pradesh which is 706 people per bed. District has 21 PHCs and 4 CHCs[365]

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Kinnaur[366]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**2**	**-**
Dispensaries	**0**	**-**
CHC/RH	**4**	**-**
PHC's	**21**	**-**

[359] *Kinnaur District statistical handbook*
[360] *Directorate of tourism ,Himachal Pradesh*
[361] *Kinnaur District statistical handbook*
[362] *Kinnaur district statistical handbook*
[363] *Himachal Statistical handbook*
[364] *Himachal Statistical handbook*
[365] *Himachal Statistical handbook*
[366] *Himachal Statistical handbook*

Total	**27**	**246**

Since Kinnaur is an entirely tribal district, few very service enterprises have been developed here. However, there is a potential for setting up of service enterprises in the district. Based on the interaction with local people, DIC and technical institutes present in the district, following observations were made for the services industry[367]:

Thrust areas Identified for Promotion
(i) Computer repair (ii) Mobile repair (iii) Auto repair (iv) Photostat (v) Photo printing lab (vi) Beauty parlour Boutique repair of electrical appliance

7.5.4 Workforce Distribution in the district

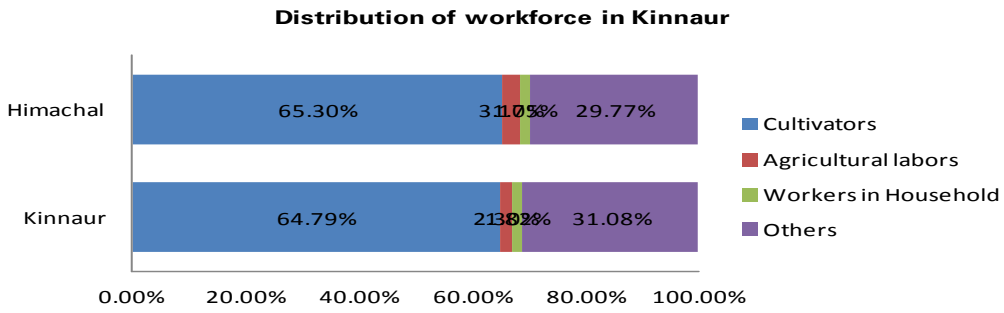
7.5.4.1 Current Employment Scenario in Kinnaur

According to census 2001, the total worker population in Kinnaur was 47,811, out of which 19,970 were women and 28,041 were men. Of the total women worker population, 42.2 percent females were main workers, 12.42 percent were marginal workers and 45.3 percent were non-workers. Similarly, out of total men workers, 59.36 percent were main workers, 7.1 percent were marginal workers and 33.5 percent were non-workers. This clearly indicates the wide difference of participation between women and men in the economy.

Region	Total workers	Main workers	Marginal workers	Non-workers
Kinnaur	61.03%	51.46%	9.57%	38.97%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (61.03 percent) is higher than the state average of 49.24 percent. As per Census 2001 data, the female worker participation rate is around 54.67. This has significantly improved since 1991 when it was only 43.48 percent. This can be accounted to a good work of NGO's, and government departments such as social welfare and DRDA amongst others.



The district notices seasonal outward and inward migration every year during the winter and summer months respectively. Majority of the population has double establishments in the Kullu and Shimla district. The rest migrate to plains in the areas like Chandigarh and or with their children who are studying in the other districts of Himachal Pradesh. The maximum inward migration is noted during the Apple growing season, when seasonal workers from Nepal, Jharkhand and Bihar work in the orchards.

[367] *Brief Industrial profile of Kinnaur district, MSME*

7.5.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Kinnaur	95,678	50,327	34,509	32,335
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG analysis

7.5.5.1 Incremental Supply of labour force in the district

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.

Kinnaur is expected to witness a growth in supply of 10 thousand incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	Skilled	Semi skilled	Minimal skilled	Skilled	Semi skilled	Minimal skilled
Kinnaur	104	348	1,496	105	352	1,512
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

Source: KPMG analysis

7.5.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Kinnaur 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 Kinnaur.

Sector wise skill level requirements during 2012-22

Sub Sectors	2012-17			2017-22		
	Skilled	Semi-skilled	Minimal skilled	Skilled	Semi-skilled	Minimal skilled
Agriculture & Allied Activities	-	-	(76)	-	-	(75)
Construction	630	1,260	10,714	723	1,446	12,291
Healthcare	26	103	-	50	199	-
Transportations and Logistics	4	56	67	4	60	72
Communication	40	119	-	40	119	-
Banking and Financial Services	285	855	-	307	920	-
Total	1006	2485	10799	1142	2810	12391

Source: KPMG Analysis; *Disclaimer: The total does not add up as only the key industries with manpower requirement of greater than 100 have been included

7.5.6 Human Resource Development in the District

7.5.6.1 Current State of Workforce Development

Largely a tourist destination, Kinnaur is also home to three institutions of higher educations. This however does not suffice the district needs and there is a very low penetration of colleges in comparison to the state average. Out of the three colleges, two are being run by state government and one by a private un-aided body. Comparison of higher education infrastructure in Kinnaur with Himachal is presented in the table:

Category of College	Himachal	Kinnaur
Arts, Science and Commerce	101	1
Engineering/Technology/Architecture	20	1
Medical (Allopathic/Dentistry/Homeopathy)	7	-
Nursing	12	-
Pharmacy	14	-
Management/Business Management	39	-
Education/Teacher training	84	1
Law	8	-
Others (including teacher training institutions, Polytechnics etc)	105	-
Total	409	3
Density(Colleges per Thousand Population)	0.06	0.03

Accessibility of vocational education in Kinnaur is equivalent to that of the state average. This is because of very low population in the district. The general attitude of people towards vocational education is not very positive and the general population is more inclined towards the Apple farming. A well to do agricultural family with 70-80 bighas of land can earn anywhere in between 70-80 lakhs rupees in a good growing season. On an average it was noticed that each family has around 3 bighas of land which earns them anywhere in between 3-4 lakhs of yearly income, sufficient to sustain them for the entire year. Vocational education on the other hand has a lower preference amongst the masses due to the lower starting salaries and the general attitude of the population which does not want to do laborious jobs.

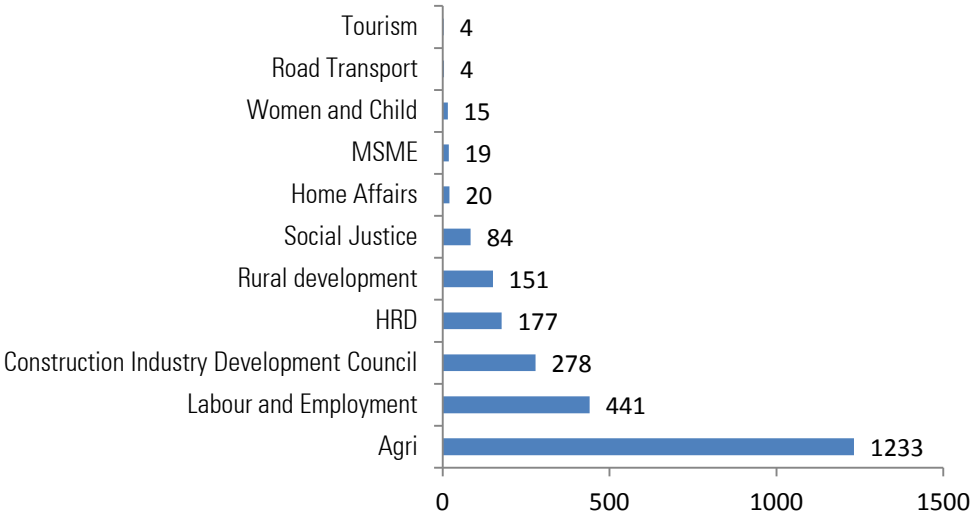
District Wise ITI/ITC Infrastructure (2011)[368]									
	Number				Sanctioned Intake				Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total		
Himachal	84	120	204		13,310	10,459	27,364		4
Kinnaur	2	1	3		210	140	350		4

[368] *http://www.techeduhp.com/itc.html*

7.5.6.2 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 seven thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Labour and Employment has significant training mandates in the district.

Potential training capacity in Kinnaur during 2012-17



7.5.6.3 Students Interaction outcomes-Youth Aspirations

Students in the district showed higher preference towards self employment in their own Apple orchards. Local students showed no interest in migration to any other district primarily due to unsuitable climate; however students from the other districts such as Kangra looked to moved back and work in private or government jobs. They did not have any preference towards the government or the private sector. Most students believe that Polytechnics students are given higher preference than ITI students by the industry and the same is reflected in the salaries offered. Students of the districts appeared to have high awareness in terms of career prospects.

7.5.6.4 Skill mapping and developmental concerns

Based on the interactions with the local industries, government departments, local population and technical institutes it was observed that the district has a vast potential in hydel power generation with the Satluj basin being the biggest source of Hydropower in Himachal Pradesh. Several projects have already been initiated and more are in pipeline. Amongst the projects which have already been initiated are Jaypee's Karcham Wang too, BASPA I and BASPA II and employer's have faced problems in recruiting the appropriately skilled local manpower in the past. Most of the employees therefore belong to the other states/districts or are moved by companies from their other current projects.

Similarly, the district offers tremendous scope for adventure sports such as mountaineering, trekking and camping etc .but there was an extremely low brand recall for Kinnaur amongst the tourists and hence the district needs to be rebranded .Following key skill gaps were noticed amongst the prominent industries

Industry	Skill study outcomes
Hydel Power	**Key skill requirements**: Foreman, Crusher, Compressor operators, Drillers, Blasters, Excavators, Mining manager, Heavy license drivers, Auto electricians, road cutters, Mucking, Mechanics motor vehicle **Skill deficits:** Auto electricians, Heavy license drivers **Current status**: To promote socio economic development, the surveyed company has set up a multi specialty 40 bedded hospital and an ITI in the Tapri area. The private ITI currently trains close to 140 students and provides them on the job training in the ongoing projects in the district. The company faces an acute shortage of Auto electricians, who are not being trained across any ITI's. Similarly, heavy license drivers are a hard find and they are usually sourced from districts like Mandi and other states.
Auto and tyre repair workshops	**Key skill requirements:** Motor mechanic, Diesel mechanic, Fitter, Sheet metal denting and Painting, Auto-electrician, Tyre retreading, wheel balancing **Skill deficits:** Auto electric mechanic, Tyre retreaders , Wheel balancing **Current status:** Kinnaur has some of the toughest terrains in Himachal Pradesh and hence tyre work is often required on the vehicles. There is a good scope for self employment in this area.
Fruit Processing and bottling	**Key skill requirements:** Fruit sorting, Hydraulic press operator, Boiler attendant, Corking machine operator and Grating operator **Skill deficits:** Boiler attendants **Current status:** The project was started by the department of Horticulture**.** People from the BPL families are currently trained on the job. ITI Reckongpeo, had to start the course in fruit and vegetable processing two years ago, which has not been started as yet.

8.1 District specific recommendations

Kinnaur is an industrially backward district and does not have any major commercial or trade activities. The significant proportion of income is earned through Apple farming which drives the Primary sector. Hydel power generation is another key sector with the district hosting some of the India's mega projects. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- Employment potential in manufacturing sector-**Food and vegetable processing**
- The district has a low brand recall amongst the tourists visiting Himachal Pradesh. Kinnaur can easily be repositioned as a destination for Adventure sports especially **mountaineering and camping**
- **Bee keeping** can also be a source of income for the rural livelihood
- Further the deplored conditions of roads has led to the demand of **Tyre retreaders and wheel alignment workshops**
- Agriculture and Horticulture is the largest employer in the district, employing around80 percent of the total workforce (both cultivators and Agricultural labors).
- Poor branding of the ITI's and the ITC in the district as the youth sees lower entry level salaries and no job prospects within the district. Further, Apple cultivation is seen as a high income annuity.
- Low motivation of the existing teachers to teach in the government institutes.

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

Stakeholder	Action Points for Stakeholders

NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors
	  ○ Food processing
	  ○ Adventure sports
	  ○ Tyre works including Retreading and Wheel balancing
	  ○ Horticulture
	• Set up camps in schools to bring a paradigm shift in perception of youth for vocational training. This could be materialized by creating a scholarship fund for high achieving students interested in taking up skill related courses.
	• Promote the vocational education as an alternate to Apple farming. This is because a regular income from Apples has brought about complacency in the youth's behavior.

District Administration	• Make an effective use of the Public relation officer to promote Vocational education. • Department of Horticulture may organize training camps on indigenous and hybrid variety of Apple • District administration must provide loans to the students who wish to pursue Public or private vocational training courses. • The administration may take up the task of educating the youth on global warming and its effects on future production of Apples • The administration may improve the overall district infrastructure such as roads so that Industries from the other districts may visit the ITI for placements

Industry	• Industry from the other districts may consider supporting the students from Kinnaur by making visits for placements or go as guest lecturers.
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district. Curriculum should be designed and aligned in such a way that the student gets an option for placement • Private players may develop curriculum for training students on soft skills. Further, they may forge partnerships with existing government ITI's and focus of soft skill training to students as well as teachers. This would open another revenue stream for these players.

7.6 Skill Gap Study of District of Kullu

7.6.1 Administrative profile

Kullu is a town and the headquarters of Kullu district. It is bounded by Lahaul and Spiti district in the north as well as east, Kinnaur district in the south-east, Shimla district in the south and Kangra district to the north-west.

Kullu is the fifth largest district of Himachal Pradesh in terms of geographical area. The area of district is 5,503 sq km, which accounts for 9.8 percent of the total share of state area[369].

Administratively, the district has been divided into four sub divisions (Kullu, Manali, Banjar and Anni); four tehsils (Kullu, Manali, Banjar, Nirmand and Anni) and five blocks (Kullu, Nirmand, Naggar, Banjar and Anni)[370].

7.6.2 Social Profile

7.6.2.1 Demographics

As per Census 2011 estimates, Kullu district has a population of around 4.37 lakhs[371], contributing to 6.3 percent of the total population. The district population has grown at a decadal growth rate of 14.55 percent in the period 2011-11[372].

The population density of 79 people per sq. km in the district[373] is much lower than the state average of 123 per sq.km. The low population density can be attributed to the fact that Kullu has difficult terrains and there is limited development in blocks like Banjar.

The district has witnessed increase in female composition of population during 2001-11. The adult gender ratio of Kullu district has increased from 927 females per 1000 males[374] in 2001, to 950 females per 1000 males[375] in 2011. There has also been a marginal increase in the child (0-6 age group) gender ratio from 960 females per 1000 males[376] in 2001 to 962 females per 1000 males[377] in 2011. The reserved caste population in Kullu at 28.28 percent[378] is higher than state average of 24.72 percent.

7.6.2.2 Literacy

The district has a lower literacy rate of 80.14 percent[379] , as compared to the state's average of 83.78 percent[380] . The lower rate of literacy in the district can be attributed to low access to schooling across the Banjar and Nirmand block. The district attracts significant tourists from all over India and hence the locals often tend to get into professions like taxi driving from a very early age and hence dropping out from the schools. There are 980[381] schools in the district, out of which more than 49 percent are located in the Kullu and Naggar block alone. As per 2011 estimates, percentage of drop-out children in both primary and upper primary level is far higher than the state average.

Comparison of district school education statistics with overall state details is presented in the table

[369] *Himachal statistical handbook*
[370] *hpkullu.nic.in*
[371] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[372] *Himachal statistical handbook*
[373] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[374] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[375] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[376] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[377] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[378] *Himachal Statistical handbook*
[379] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[380] *http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html*
[381] *Kullu district statistical handbook*

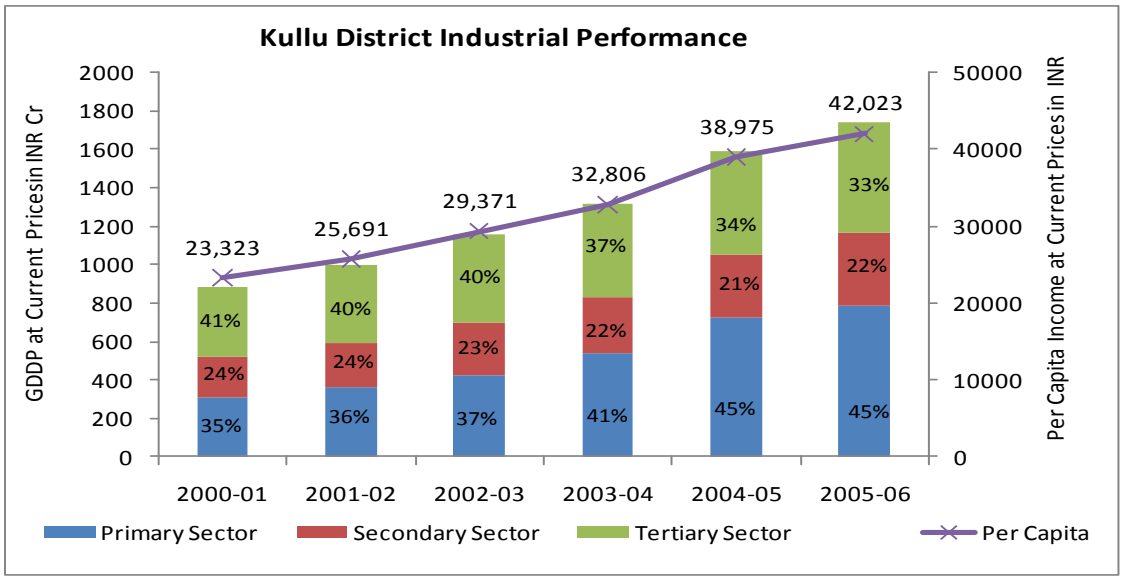
Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Kullu	43,158	0.55%	26,329	0.39%
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

7.6.3 District Economy

One of the most famous hill stations in Himachal Pradesh, the Kullu - Manali region is described as the Valley of Gods. It is also an important commercial and economic center and hence has an eclectic influx of nearby village/district inhabitants, shop owners and government employees. The district is mainly dependent on the revenues from Agriculture which includes Apple, Pear and other dry fruits. Hence, the majority of population is a noted to be working in either the agriculture or the tourism sector.

The district economy has witnessed a compounded annual growth of 11.90 percent[382] during 2001-06, in comparison to the state average of 8.41 percent during the same period[383]. Secondary sector constitutes to over 22 percent of the district's economy, indicating a relatively inactive manufacturing sector. The district has not developed much industrially and the significant share of the industries registered in the district is that of woolen garments and shawls. There are also limited Agro and wooden products units in the district. Other industries have not developed much on an account of topographical constraints. Further, the per capita Income of Kullu has registered a cumulative growth of 12.5 percent[384] during 2000-06, compared to the state compounded annual growth rate of 6.87 percent.[385]

Sub-Sector wise GDDP growth trends of Kullu are presented in the graph below.

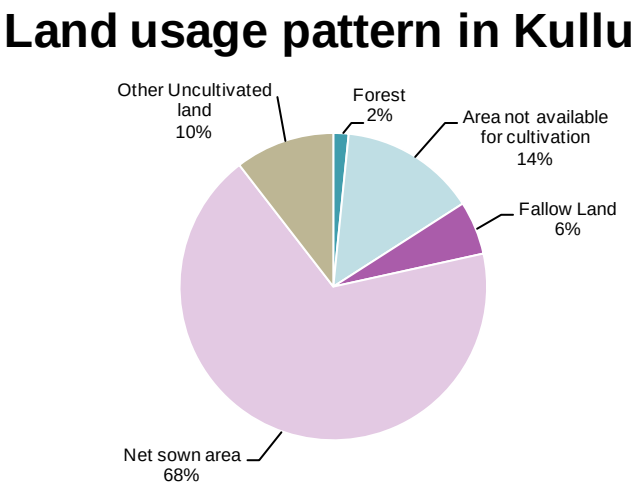


[382] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[383] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[384] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[385] http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf

7.6.3.1 Agriculture and allied sectors

Agriculture and its allied activities are the main occupation of the people in Kullu district. Kullu has 68 percent[386] of its total geographical area under cultivation. According to the available data of 2005-06 from planning commission, Primary sector contributes to around 45% towards district GDP. The main agricultural crops grown in the district are maize, wheat, paddy and pulses. Kullu is one of the leading districts in Himachal Pradesh in the production of fruits. According to data available for 2008-09, the total cultivated area in Kullu is around 64,256 hectares[387] and out of this, 37.6 percent is used for Wheat cultivation[388]. Maize is another important crop of the district and 26 percent of the total cultivated area falls under this crop. The district is dependent various sources of irrigation like canals, ponds and ground water from tube-wells. As per available data for the year 2008-09 from the district report, around 2,553 ha [389] of land is irrigated through these alternative channels. With 72.6 percent of net sown area in the district exposed for multiple cropping[390], there is a need to promote irrigation techniques such as drip farming, hydroponics and aeroponics to sustain agricultural growth in Kullu.

District land usage pattern is presented in the chart[391].



(According to 2008-09 data)

The district has a very low forest cover of 2 percent, in comparison to the state average of 19 percent. Apple farming is an important activity in the district. In 2010-11 approximately 23,870 hectare[392] of land was under Apple cultivation producing 160,000 MT of apple.

The Kullu valley has a number of places for trout fishing like Katrain, Raison, Kasol and Naggar, along the river Tirthan near Larji, in the Sainj Valley and in the Hurla Khud. The district had an approximate production of 231.48 metric tons of fish in 2010-11.It is less than 5 percent of the total Himachal's produce. There are 291 licensed fishermen in the district when compared to 12343 in the state.[393]

[386] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[387] *Kullu district statistical handbook*
[388] *Kullu district statistical handbook*
[389] *Kullu district statistical handbook*
[390] *KPMG analysis (calculated as Area available for multiple cropping divided by Net sown area)*
[391] *Kullu district statistical handbook*
[392] *Kullu district statistical handbook*
[393] *Kullu district statistical handbook*

There are 127 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of INR54.24 lakhs.[394]

7.6.3.2 Industry

There is only one industrial area in Kullu called Shamshi. Due to the difficult geographical terrain, Kullu is yet to achieve a significant level of industrialization. The key industry in the district is handloom and majority of households in the district are involved with the same.The only major investor in the district in the medium-large category is the D.S group that manufactures the Catch soda and soft drinks brand. The total investment by the group is INR 1,549 lakhs and it provides employment to approximately 147 people.

Kullu has only one existing cluster of Micro & Small Enterprise, which is the weaving cluster.

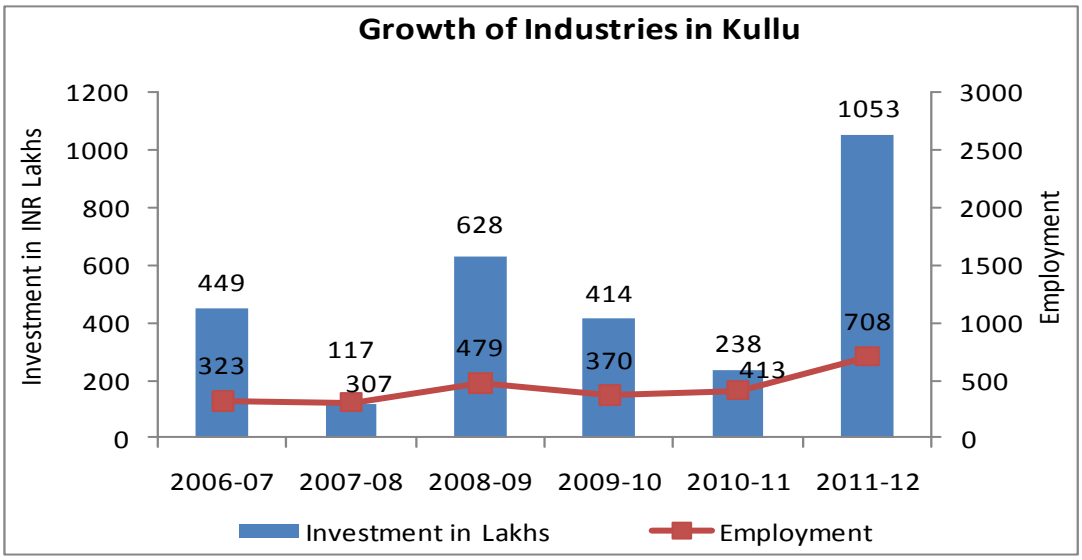
There is no major mineral available in the district. The minor minerals available in the district are sand, clay, slate and Rough Stone/Project Stone.[395]

Although forests occupy less than 3 percent of the total geographical area of Kullu, it plays an important role in the economy of the district. The major forest produce are timber, firewood, katha, resin, fodder, herbs. The main species of trees available in the district are Khair and Chil.[396] There is no large scale industry/Public Sector Undertaking in Kullu district.

There is a limited scope of ancillarisation of the industry in the district, as there are no large scale units in the area. As per 2011 data, 51 small scale factories were registered in the district with an investment of INR11.94 crores, employing around 726 people on a daily basis.[397]

Between 2006-07 and 2010-11, a total investment of 18.5 crores was made in the district generating an incremental employment of 1892[398]

Employment trends in MSME segments over the recent years are presented in the chart.[399]



[394] *Himachal Statistical handbook*
[395] *Department of Mines & Geology*
[396] *Brief Industrial profile of Kullu District, MSME*
[397] *Himachal Statistical handbook*
[398] *DIC, Kullu*
[399] *Brief Industrial profile of Kullu District, MSME*

Based on discussions with District Industries Center, following potential MSME thrust areas were identified in Kullu district.

Existing	Thrust areas Identified for Promotion
(i) Woolen, silk & artificial Thread based clothes (ii) Wood/Wooden based furniture (ii) Agro based (iii) Ready-made garments & embroidery (iv) Repairing & servicing (v) Metal based (Steel Fab.) (vi) Paper & Paper products (vii) Mineral based (viii) Cotton textile	Food processing, Textiles, FMCG, Electrical and Electronics, Wooden products

Source: Brief Industrial profile of Kullu district, MSME

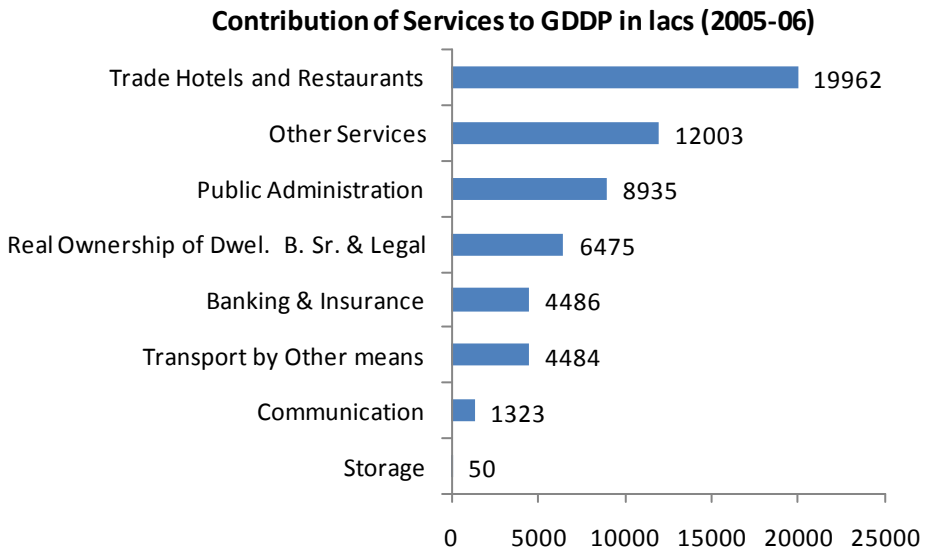
7.6.3.3 Services Sector

Kullu district has a good scope of setting up of service enterprises, as a large number of tourists visit the district. The tertiary sector contributed to 33 percent[400] of Kullu GDDP during 2005-06.

Services sector in the district is dominated by trade, hotel and restaurants and public administration[401].Trade activity includes wholesale and retail trade in all commodities.

Tourism is another important sector that contributes significantly towards the tertiary sector in Kullu. In 2011, the district had a share of 18.2 percent of the total Indian tourists in Himachal Pradesh. This data positions the district at second rank only after Shimla that has an approximate share of 19.2 percent. Places of tourist importance in the district include Raghunath Temple, the Bijali Mahadev Temple, Kasol, Manikaran, Roerich Gallery and Naggar.

Composition of services economy in the district is presented in the table below[402].



Kullu has a number of registered hotels and resorts like Hotel Kullu Valley, Hotel Rock & River Kullu, Hotel Shobla International Kullu, Hotel Silver Moon (HPTDC), and Orchard Inn Guest House Shamshi. The number of restaurants and hotels in Kullu has gone up from 624 to 871[403] at a compounded annual growth rate of 3.39% from 2001-2011. Out of these there

[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*
[403] *Kullu District statistical handbook*

are 598 registered Hotels and guest houses with a bed capacity of 19,563.[404] These restaurants and hotels together employ nearly 2,066 people.[405]

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was close to 2.58 percent as per 2005-06 estimates. The number of bank branches in the district has grown at 13 percent CAGR between 2009 and 2011[406] compared to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately INR 854 crores was given in the district by the commercial and State banks during 2010-11[407]. During the same time the deposits in these banks were approximately INR1, 788 crores.

The growth in the number of banks from 2009-2011 in the district vis-a-vis the state are highlighted below.

	2009	2010	2011
Kullu	57	65	73
Commercial banks/lacs population	13	15	17
Himachal Pradesh	980	1053	1105
Commercial banks/lacs population	16	17	18

Source: Himachal Statistical handbook, Himachal Socio-economic profile

Healthcare coverage in terms of population served, stands at 942 persons per bed, is higher than Himachal Pradesh which is 706 people per bed. District has 17 PHCs and 5 CHCs[408]

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Kullu 2011-12[409]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**3**	**-**
Dispensaries	**0**	**-**
CHC/RH	**5**	**-**
PHC's	**17**	**-**
Total	**25**	**464**

[404] *Himachal Statistical handbook*
[405] *Kullu District statistical handbook*
[406] *Himachal Statistical handbook*
[407] *Himachal Statistical handbook*
[408] *Himachal Statistical handbook*
[409] *Himachal Statistical handbook*

A total of 96 repairing and servicing enterprises have come up in the district up to 31 March 2012; [410] major ones being Atta chakki, oil expeller, auto repair, electrical appliances repair etc. There is still a great potential for the set up of service enterprises here, on account of huge tourism potential. Based on the interaction with local people, DIC and technical institutes present in the district, following observations were made for the services industry[411]

Thrust areas Identified for Promotion
(i) Fast food (ii) Mobile repair (iii) Auto repair (iv) Cold storage (v) Dry cleaning (vi) Bee keeping (vii) Services of guide (viii) River rafting (ix) Ropeways (x) Beauty parlours (xi) Computer repair (xiii) Repair of electrical appliances (xiv) Dairy farming (xv) Floriculture(xvi) Refrigerated vans and Paragliding

7.6.4 Workforce Distribution in the district

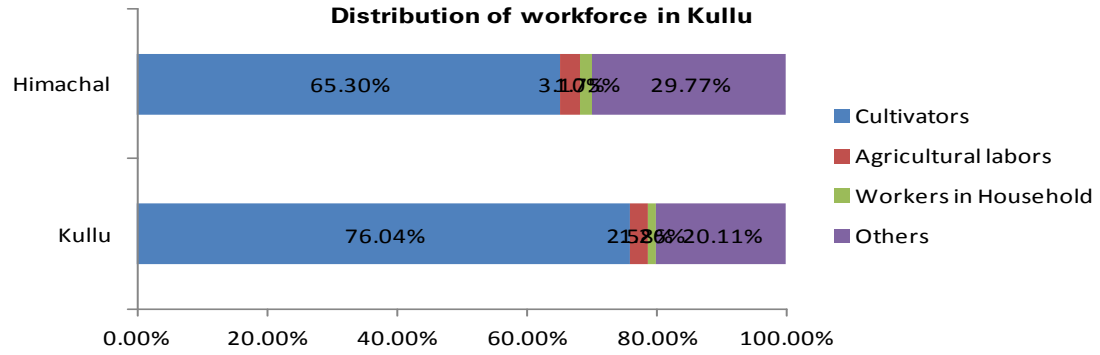
7.6.4.1 Current Employment Scenario in Kullu

According to census 2001 the total worker population in Kullu was 2.16 lakhs, out of which 97 thousand were women and 1.19 lakhs were men. Of the total women worker population, only 36.27 percent females were main workers, 16.64 percent were marginal workers and 47.09 percent were non-workers. Similarly, out of total men workers, 50.57percent were main workers, 9.72 percent were marginal workers and 39.70 percent were non-workers[412]. This clearly indicates the wide difference of participation between women and men in the district.

Region	Total workers	Main workers	Marginal workers	Non-workers
Kullu	56.74%	43.69%	13.05%	43.26%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (56.74 percent) is higher than the state average of 49.24 percent. As per the Census 2001 data, the female worker participation rate is around 52.91 percent. This has significantly improved since 1991 when it was only 41.28 percent.



Historically, Kullu has been a destination for migration from other Himachal districts such as Lahaul and Spiti, Kinnaur and Mandi. Majority of population from Lahaul and Spiti and Kinnaur owns a second establishment in Kullu, which becomes their home for six months during severe winters. During this time the migrant population generally works on Khaddi and

[410] *Brief Industrial profile of Kullu district, MSME*

[411] *Brief Industrial profile of Kullu district, MSME*

[412] *Gender Statistics, Government of Himachal Pradesh*

prepares handmade woolens. Significant inward migration also happens in the Naggar block during the summers which is key tourist season from April to July. The migrants usually work in restaurants and hotels as chefs, waiters, bell boys and cleaners etc. during this time.

7.6.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Kullu	497,142	261,497	156,262	146,418
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG analysis

7.6.5.1 Incremental Supply of labour force in the district

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.

Kullu is expected to witness a growth in supply of 49.9 thousand incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	Skilled	Semi skilled	Minimal skilled	Skilled	Semi skilled	Minimal skilled
Kullu	1,522	3,043	4,261	1,538	3,075	4,307
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

Source: KPMG analysis

7.6.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Kullu 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 Kullu.

Sector wise skill level requirements during 2012-22

	2012-17			2017-22		
Sub Sectors	Skilled	Semi-skilled	Minimal skilled	Skilled	Semi-skilled	Minimal skilled
Agriculture & Allied Activities	-	-	(1,439)	-	-	(1,420)
Beverages	15	59	74	19	74	93
Construction	1,469	2,937	24,967	1,685	3,370	28,641
Healthcare	251	1,005	-	259	1,036	-
Transportations and Logistics	54	852	1,013	58	913	1,087
Retail	51	51	407	1	1	8
Hospitality	50	75	377	45	67	336
Communication	366	1,098	-	367	1,100	-
BFSI	807	2,421	-	869	2,607	-
Total*	3111	8790	25467	3325	9276	28833

Source: KPMG Analysis

* Please note: Only the key industries have been highlighted individually in the section. Hence, the total may not add up.

7.6.6 Human Resource Development in the District

7.6.6.1 Current State of Workforce Development

Largely a tourist destination, Kullu's penetration in terms of higher education is relatively lower than the state's. Institutes such as Vinayak College of pharmacy, Chamunda Institute of nursing, Kullu College of education are well known in the district. There are 5 colleges run by the State government and 11 colleges run by private un-aided bodies in the district.

These institutions offer higher education and technical training across a variety of disciplines.

Category of College	Himachal	Kullu
Arts, Science and Commerce	101	4
Engineering/Technology/Architecture	20	-
Medical (Allopathic /Dentistry/Homeopathy)	7	-
Nursing	12	1
Pharmacy	14	1
Management/Business Management	39	1
Education/Teacher training	84	2
Law	8	-

Others (including teacher training institutions, polytechnics etc)	105	7
Total	409	16
Density(Colleges per Thousand Population)	0.06	0.03

Accessibility of vocational education in Kullu is higher than the state average. There are 5 government and 6 private ITI's operating in different blocks of Kullu with a sanctioned intake of 1406.

Details of vocational education infrastructure in Kullu are presented in the table.

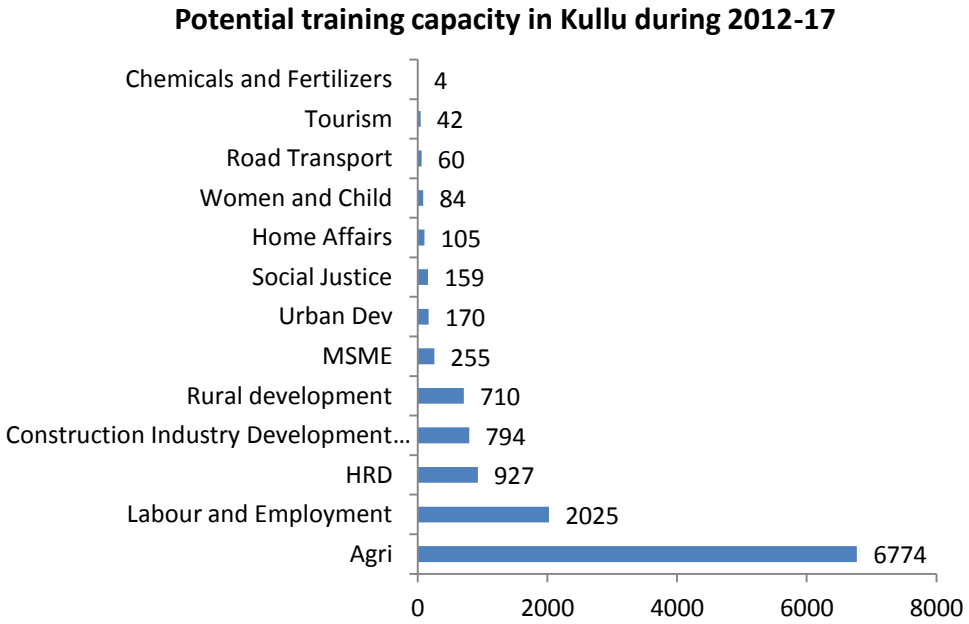
District Wise ITI/ITC Infrastructure (2011)[413]

	Number				Sanctioned Intake				Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total		
Himachal	84	120	204		13,310	10,459	27,364		4
Kullu	5	6	11		1698	508	2206		5

[413] http://www.techeduhp.com/itc.html

7.6.6.2 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 seven thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Labour and Employment has significant training mandates in the district.



7.6.6.3 Youth Interaction outcomes

Students in the district showed higher preference towards government job over private owing to higher job security and salary. Most students were also open to migration to the other districts or states. However, a few students who had their own farms preferred to remain within the districts. Most students felt that Polytechnics students are given higher preference than ITI students by the industry and the same is reflected in the salaries offered. Students of the districts appeared to have good awareness in terms of career prospects. Most youth were seen to prefer salaried job over self employment.

7.6.6.4 Skill mapping and developmental concerns

Kullu is not an industrialized district. There are only two medium scale industry which manufactures Soda water and soft drinks. However, there are a number of Small scale, Handicrafts, Handlooms and Khadi & village industries. Kullu is also an important shawl cluster. People from the district are often found engaged in weaving tradition Kullu caps and shawls. Agriculture is the way of life for many people in Kullu and they rely on traditional means of farming. Hydel power is another important sector which has a lot of potential in the district and has specific skill requirements and deficits. The district lacks licensed heavy equipment drivers which are often needed in the Cement industry and hence hires them from districts like Hamirpur and states like Punjab

Based on the interactions with the local industries, government departments, local population and technical institutes following key observations were derived across the prominent industry of Kullu.

Industry	Skill study outcomes
Stone crushing	**Key skill requirements**: Foreman, Crusher, Compressor operators, Drillers, Blasters, Excavators, Mining managers, Heavy license drivers **Skill deficits:** Heavy license drivers **Current status**: Currently, the manpower is being trained on the job. There is no ready availability for any of the above job roles. Recruitments are done at the helper level and fast learners are promoted accordingly. For the profile of Blaster, the only certification available is from the Mining department and the Mining managers are diploma holders. As the natives are not interested in doing this kind of work, the manpower is recruited from Jharkhand, Bihar, Nepal and a few from the Mandi district.
Flour Mills	**Key skill requirements:** Gunny bag sewing machine operator, Operators of reel machines and rotary separators, water damper, Elevators & plant shifter, Fitter and Electrician **Skill deficits:** Operators are difficult to find locally hence 2 spares are always trained on the job. Multi-skilling is encouraged within the mill's premises. **Current status:** The mills owner is also the chairman of the IMC. The company does not do hiring from ITI's. The manpower is being sourced from Jharkhand as natives are not interested in doing laborious work.
Auto repair and servicing	**Key skill requirements:** Motor mechanic, Diesel mechanic, Fitter, Sheet metal denting and painting, Auto-electrician **Skill deficits:** Auto-electrician and sheet metal denting and painting **Current status:** Trainees from MMV trades are recruited from ITI-Shamshi, however according to the industry if a course on sheet metal and auto electrician is started then it could be beneficial**.** The workshop also provides Apprentice training to the students every year.
Hydel power	**Key skill requirements:** All the key skills of stone crushing and Road cutting, Mucking, Motor mechanic, Electricians, Auto electricians **Skill deficits:** Auto-electrician **Current status:** ITI-Shamshi has diploma COE advanced module on Hydel power and companies like Largy are providing on the job trainings to these students for 4 months

8.1 District specific recommendations

Kullu district like Shimla is the second most visited tourist destination in Himachal Pradesh. The district has an active primary sector with Horticulture produce (mainly Apples) driving the employment. Kullu is also an important commercial and an economic centre with an eclectic influx of nearby villages/districts inhabitants, shop owners and government employees. Since the Kullu valley, lies on the Beas River, there is a huge scope of White river water rafting and other adventure sport activities. It is to be noted that institutes like AB Vajpayee institute of Mountaineering are engaged in providing training for adventure sports in the district. The district with significant tourist and commercial activity has significant opportunities for skill development mainly across the tourism sector. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- High employment potential in the tertiary sector-**Tourism, Retail, Adventure sports and Hospitality including Restaurants and Hotels, Chefs, Tour operators and Transportation (Taxi services)**
- Growth of employment in the **Hydel Power** sector with many small and large projects existing/coming up in the district.
- The growth in industrial development in Kullu has spurred indirect employment demand in certain sectors like **security services and facilities management**
- The district presence on the river banks may give way to **Soft drinks and mineral water production and bottling**
- Employment growth may also be seen in the **Fruit and vegetable processing including and refrigeration**
- Sustainable growth of Retail in the district would require multi faced skill development for the workers including ***sales and marketing***
- Limited MSME base in the district (only two water bottling plants)
- Low motivation of the existing teachers to teach in the ITI's due to non security of jobs
- Fulfillment rate of courses in the ITI is high in the district. However, courses like COE face issues like "generalized" vs. "specialized" at all times

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

Stakeholder	Action Points for Stakeholders

NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors
	  ○ Tourism
	  ○ Retail
	  ○ Hospitality
	  ○ Security with focus on e-surveillance
	  ○ Hydel power
	  ○ Adventure sports training
	• Creating a scholarship fund for high achieving students interested in taking up skill related courses.
	• Promoting vocational education at the grass root level through policy advocacy, school camps and encouraging students to take up NVEQF programs in schools

District Administration	• Ensure women participation in skill development, as 47 percent of all the women in the district are Non-workers. • Centre of Excellence scheme should be promoted appropriately in the district to

	ensure higher fulfillment rates. The scheme must also be promoted amongst the companies that come to recruit from ITI Kullu through seminars. • The district administration with support from the Industry may start a Centre of excellence program in Hydel power. • Create an enabling environment such as an option of taking a loan for the students who wish to pursue vocational education through public or private mode. • Make effective use of Public relation officer's to promote campaigning for admitting school dropouts in MES courses. The current target oriented approach is benefitting only a certain strata of the beneficiaries (people looking to up skill themselves) • Creating an infrastructure for Skill development of teachers (such as a tool room) within the district and make trainings mandatory for all the trainers. Optionally, the same could be started at the State level. • Focus on training in horticulture products and processing especially in Apples as the district has a good output.
Industry	• Support the institutional management committee under the PPP scheme to make it more effective and ensure adequate placements and effective training. • The industry may offer Apprentices work related to the trades they have learnt during their time in the ITI's and make their learning's as effective during their time as an Apprentice. • Increase desirability of jobs through improved work environment. • Industry may promote women in the district by ensuring an adequate mix of male and female workers. • Participate in "train the trainer" programs to improve the quality of training delivery • Industry can collaborate with skill development institutes for updating the course content and creating linkages for placements. • Industry can support Vocational education through scholarship funds for the needy but meritorious students
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district. Curriculum should be designed and aligned in such a way that the student gets an option for placement. Experts in form of guest lecturers from the industry could be called to deliver modules. • Update machinery and provide manuals in workshops for practical classes. • Private players may develop curriculum for training students on soft skills. Further, they may forge partnerships with existing government ITI's and focus of soft skill training to students as well as teachers. This would open another revenue stream for these players.

7.7 Skill Gap Study of District of Lahaul & Spiti

7.7.1 Administrative profile

Lahaul and Spiti is a district in Himachal Pradesh with its headquarters in Keylong. It is bounded by Ladakh in the north, Kullu district in the south, Tibet in the East and Kinnaur district to the west.

Lahaul and Spiti is the largest district of Himachal Pradesh in terms of geographical area. The area of district is 13,835 sq km, which accounts for 24.8 percent of the total share of state area[414].

Administratively, the district has been divided into two sub divisions (Lahaul and Spiti); two tehsils (Lahaul and Spiti) and two blocks (Lahaul and Spiti)[415].

7.7.2 Social Profile

7.7.2.1 Demographics

As per Census 2011 estimates Lahaul & Spiti, has a population of around 0.31 lakhs[416]contributing to 0.4 percent of total population. The district population has grown negatively at a decadal growth rate of 5 percent in the period of 2001-11[417].

The population density of 2 people per sq. km[418] is much lower than the state average density of 123 per s.km. The extremely low concentration of population in the district can be attributed to the harsh living conditions and the hilly topography in the area.

The district has witnessed an increase in female composition of population during 2001-11. The adult gender ratio of Lahaul & Spiti district has increased from 802 females per 1000 males[419] in 2001, to 916 females per 1000 males[420] in 2011. There has also been an increase in the child (0-6 age group) gender ratio from 961 females per 1000 males[421] in 2001 to 1,013 females per 1000 males[422] in the same period. Lahaul & Spiti has a reserved caste population of 7.84 percent[423] , as compared to 24.72 percent of Himachal Pradesh as per Census 2001.

7.7.2.2 Literacy

The district has a lower literacy rate of 77.24 percent[424] as compared to the state's average of 83.78 percent[425] . The lower levels of literacy can be accounted to non-availability of good education infrastructure in the district. The locals are engaged in Potato and peas farming for six months during summers and migrate to Kullu for winters. Therefore, the migratory trend is also the reason for low literacy. There are 277[426] schools in the district, out of which more than 64 percent are located in the Lahaul block alone. As per 2011 estimates, percentage of out-of-school children in both primary and upper primary level is far lower than the state average. No drop-outs in the year were reported for the upper primary level. Comparison of district school education statistics with overall state details is presented in the table.

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[414] *Himachal statistical handbook*
[415] *hpbilaspur.nic.in*
[416] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[417] *http://www.census2011.co.in/census/district/236-bilaspur.html*
[418] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[419] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[420] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[421] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[422] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[423] *Himachal Statistical handbook*
[424] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[425] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[426] *Lahaul & Spiti statistical handbook 2011*

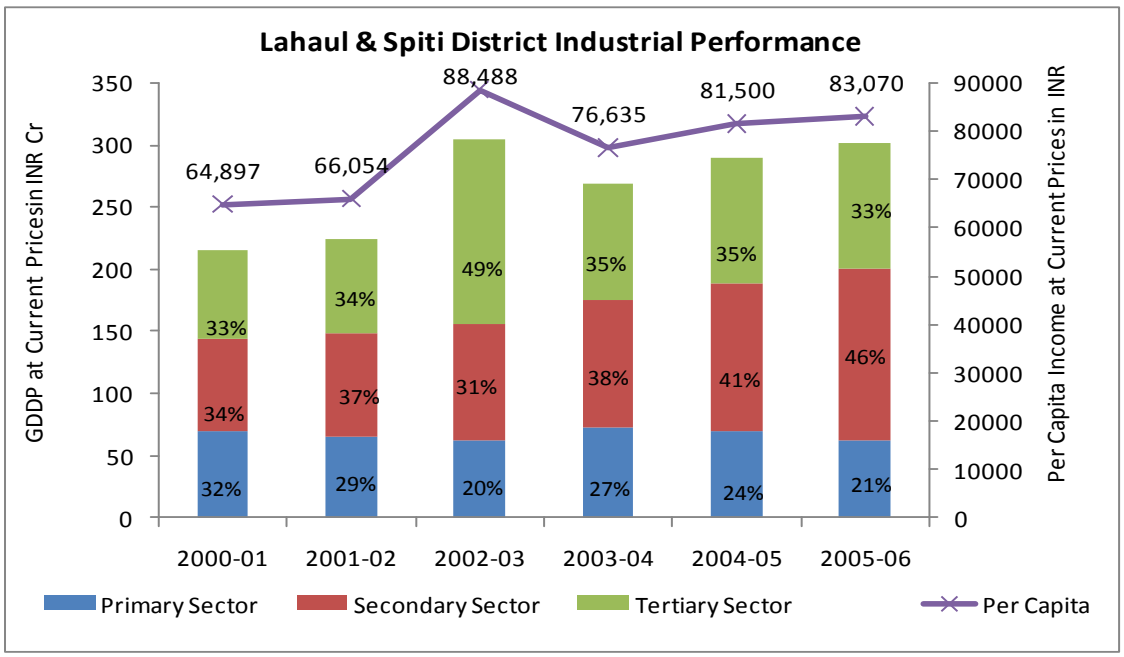
Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Lahaul & Spiti	2414	0.21%	1327	0
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

Source: RMSA and SSA

7.7.3 District Economy

Lahaul & Spiti categorized as a snow desert has seen very low industrialization due to poor connectivity with the mainland. The district remains snowbound for six months during the year and totally cut-off from the rest of the state. The economy of the district is predominantly agricultural based. About 80 percent of the population is engaged in agriculture and its allied activities. The district economy has witnessed a lower cumulative growth of 5.71 percent[427] during 2000-06 in comparison to the state average of 8.44 percent[428] during the same time. Secondary sector constitutes to over 46% percent of district economy. Most of the industrial units are handloom based such as shawls, caps, patti and other woolen garments manufactured on handloom. Further, per capita Income of Lahaul & Spiti has registered a cumulative growth of 5.06 percent[429] during 2000-06 compared to the state compounded annual growth rate of 6.87 percent during the same period.[430]

Sub-Sector wise GDDP growth trends of Lahaul & Spiti are presented in the graph below.



[427] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.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
[430] http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf

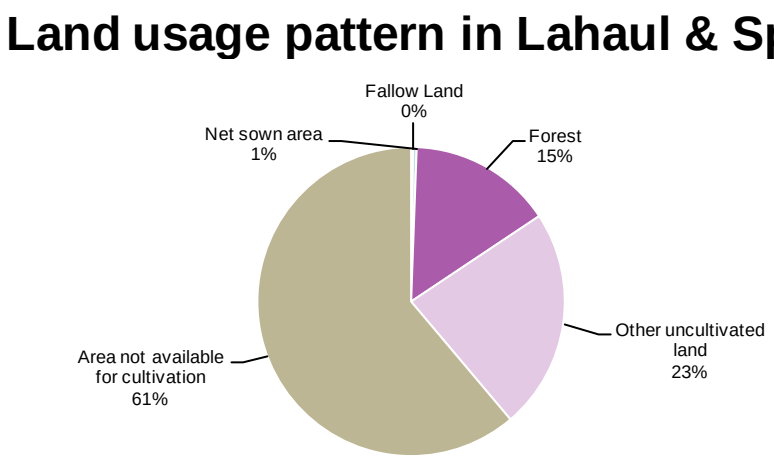
7.7.3.1 Agriculture and allied sectors

The economy of Lahaul & Spiti is primarily agriculture based. The district is known for the cultivation of potatoes which have a very high demand in the plains.

The district has 17.4 percent[431] of its total geographical area under cultivation. According to the available data of 2005-06 from planning commission, Primary sector contributes to around 21% towards the district GDP. The main agricultural crops are Maize, Barley, Paddy, Peas, Pulses and Potato. Fruits such as Apple, Sea buckthorn, Nuts and dry fruits along with other sub-tropical fruits are also grown in the district.

The total cultivated area in Lahaul & Spiti is around 3,591 hectares[432] and out of this 49.6 percent is used for Peas cultivation[433]. Potato is another important crop of the district and 20.8 percent of the total cultivated area falls under this crop. The district is dependent various sources of irrigation like canals, ponds and ground water from tube-wells. As per available data from the district report, around 3,398 ha [434] of land is irrigated through these alternative channels. With only 5.68 percent of net sown area in the district exposed for multiple cropping[435], there is a need to promote minor irrigation techniques to sustain agricultural growth in Lahaul & Spiti.

District land usage pattern is presented in the chart[436].



According to 2009-10 data

The district has a lower forest cover of 15 percent in comparison to the state average of 19 percent, primarily due to unfavorable weather at the higher altitudes.

The climate in the district is dry temperate, which is suitable for cultivation of apples, dry fruits and hops. In 2009-10, approximately 640 hectares of land was under Apple cultivation producing 135 metric tonnes of apple.

[431] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[432] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[433] *Lahaul & Spiti district statistical handbook*
[434] *Lahaul & Spiti district statistical handbook*
[435] *KPMG analysis*
[436] *Lahaul & Spiti district statistical handbook*

Animal husbandry is an important allied activity of the district with a total of 12,514 cattle and 37000 sheep as per the Directorate of Animal husbandry.

There are 52 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of 1.85 lakhs.[437]

7.7.3.2 Industry

There is no industrial area in Lahaul & Spiti. Due to the geographical factors and bulk of workforce being engaged in agriculture and its allied activities, the district is the industrially most backward in Himachal Pradesh.

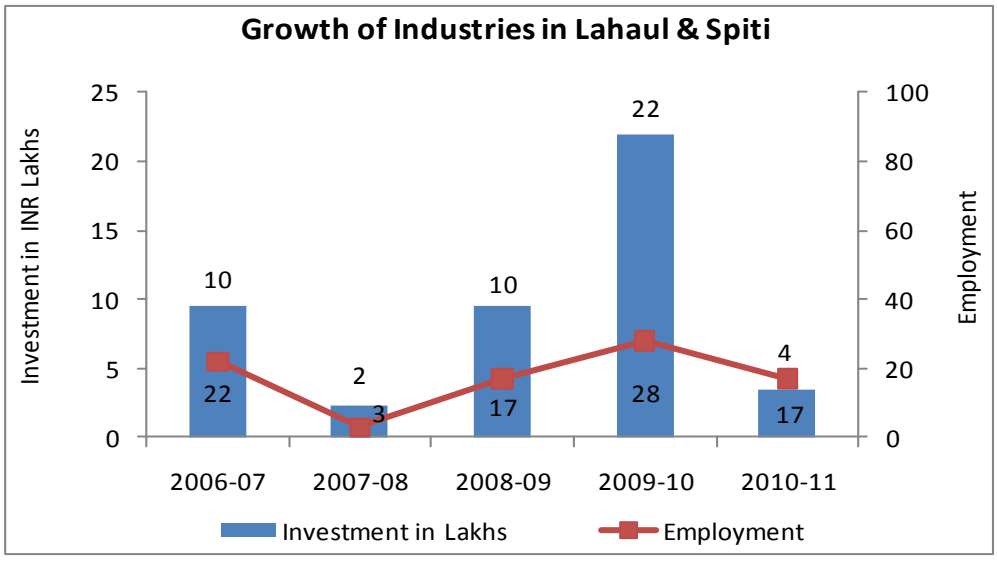
The district has no major mineral available[438]. There is no exportable item in this district as the district is tribal and remains inaccessible for more than 7 months in a year.

The climate of major parts of the district is not conducive for growing the natural trees as a result of which the major forest resources in the district are not available. However, minor forest produce includes patish, karu, kalazira, dhoop, panza, hyphopia etc. Being a tribal district, there is absence of any large scale industry/ plublic sector undertaking here.

There is no scope of ancillarisation of the industry in the district. As per 2011 data, 5 small scale factories were registered in the district with an investment of INR0.29 crores, employing around 18 people.Lahaul and Spiti's share in terms of number of registered units was lowest in Himachal Pradesh with only 0.5 percent in 2011.[439]

Between 2006-07 and 2010-11, there has been an incremental investment of approximately INR 47 lakhs generating an employment for approximately 77 people.[440]

Employment trends in MSME segments over the recent years are presented in the chart.[441]



Based on discussions with District Industries Center, following potential MSME thrust areas were identified in Lahaul & Spiti district.

[437] *Himachal Statistical handbook*
[438] *Department of Mines and Geology*
[439] *Himachal Statistical handbook*
[440] *Brief industrial profile of Lahaul & Spiti district, MSME*
[441] *Brief Industrial profile of Lahaul & Spiti District, MSME*

Existing	Thrust areas Identified for Promotion
(i) Woolen, silk & artificial Thread based clothes (ii) Agro based (iii) Metal based (Steel Fab.) (iv) Repairing & servicing (v) Wood/wooden based furniture (vi) Mineral based (vii) Ready-made garments & embroidery	Food & Fruit processing, Wood & Wooden products, Herbs collection & Processing, Hosiery Products, Woolen products, Solar Lights

Source: Brief Industrial profile of Lahaul & Spiti district, MSME

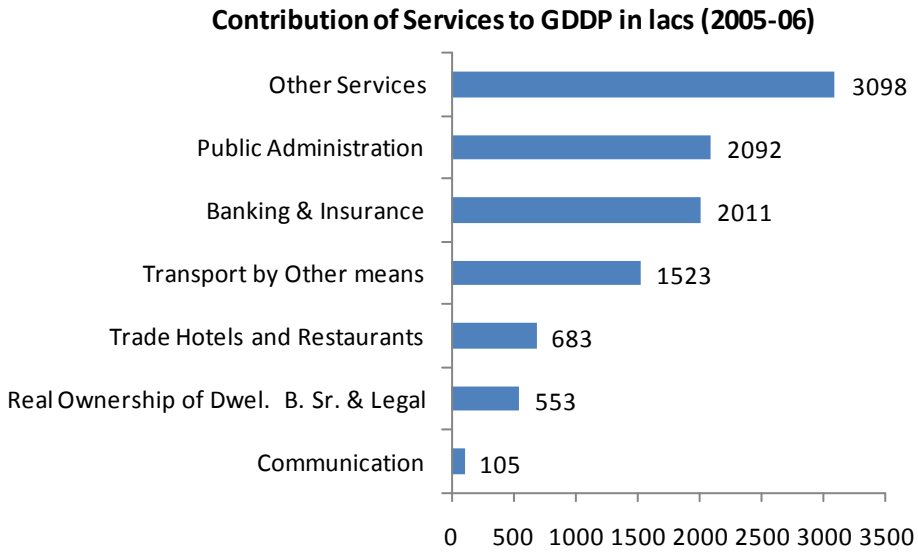
7.7.3.3 Services Sector

Due to a low population, there is very little scope of service enterprises to be established in Lahaul & Spiti. However the tourist inflow creates a potential for the establishment of services sector here. The sector contributed to 33 percent[442] of Lahaul & Spiti GDDP during 2005-06.

Services sector in the district is dominated by banking & insurance and public administration[443].

The treacherous weather in Lahaul and Spiti permits visitors to tour only between the months of June to October, when the roads and villages are free of snow and the high passes (Rothang La and Kunzum La) are open. Places of tourist importance in the district include the various Buddhist Monasteries in Spiti, Kaza, Tabo, Nako, Keylong, Jhnaskar, Chandra Tal Lake, Suraj Tal Lake and Dashir Lake among others. Trekking, skiing are popular adventure sports of this region. In the year 2011 the district had a share of 3.2 percent of the total domestic tourists who travelled to Himachal Pradesh.[444]This is expected to increase with the construction 9 KM long tunnel that is expected to complete by 2015.The tunnel shall reduce the overall distance from Manali to Lahaul by almost 45 Km and one would be able to make year round travels.

Composition of services economy in the district is presented in the table below[445].



Lahaul & Spiti has a number of registered hotels and resorts like Nordaling Guest House Keylong, The Tourist Lodge, Hotel Ibex, Hotel Chandra Bhaga (HPTDC) etc.

[442] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[443] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[444] *Himachal statistical handbook*
[445] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*

There are 87 registered Hotels and guest houses with a bed capacity of 1351.[446]

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was close to 6.7 percent as per 2005-06 estimates. Number of bank branches in the district has grown at 4.88 percent CAGR between 2009 and 2011[447] with respect to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately INR44 crores was given in the district by the commercial and State banks during 2010-11[448] .During the same time the deposits in these banks were approximately INR175 crores.

The growth in the number of banks from 2009-2011 in the district Vis a Vis the state are highlighted below.

	2009	2010	2011
Lahaul & Spiti	10	10	11
Commercial banks/lacs population	32	32	35
Himachal Pradesh	980	1053	1105
Commercial banks/lacs population	16	17	18

Healthcare coverage in terms of population served, stands at 174 persons per bed, is much lower than Himachal Pradesh which is 706 people per bed. District has 16 PHCs and 3 CHCs[449]

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Lahaul & Spiti [450]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**1**	**-**
Dispensaries	**0**	**-**
CHC/RH	**3**	**-**
PHC's	**16**	**-**
Total	**20**	**178**

7.7.4 Workforce Distribution in the district

7.7.4.1 Current Employment Scenario in Lahaul & Spiti

According to census 2001 the total worker population in Lahaul and Spiti was 21,088, out of which 8484 were women and 12,604 were men. Of the total women worker population, 50.17 percent females were main workers, 7.24 percent were marginal workers and 42.61 percent were non-workers. Similarly, out of total men workers, 63.96 percent were main

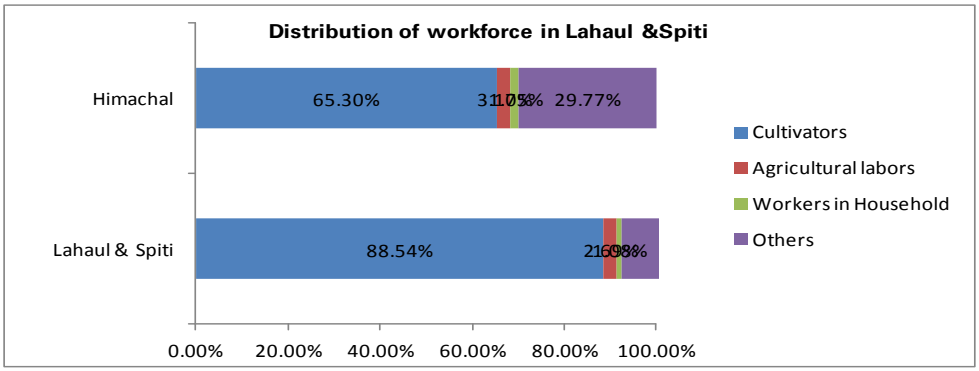
[446] *Directorate of tourism,Himachal Pradesh*
[447] *Himachal Statistical handbook*
[448] *Himachal Statistical handbook*
[449] *Himachal Statistical handbook*
[450] *Himachal Statistical handbook*

workers, 4.39 percent were marginal workers and 31.65 percent were non-workers. This clearly indicates the wide difference of participation between women and men in the economy

Region	Total workers	Main workers	Marginal workers	Non-workers
Lahaul & Spiti	63.47%	57.82%	5.66%	36.53%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (63.47 percent) is higher than the state average of 49.24 percent. As per the Census 2001 data, the female worker participation rate is around 57.39 percent. This has significantly gone down since 1991 when it was 60.07 percent.



The district of Lahaul and Spiti is known for its seasonal migration. As the winters are harsh, most of the residents migrate to the Kullu valley where they have a second establishment. During this time the migrant population generally works on Khaddi and prepares handmade woolens. Significant, inward migration also happens during the summers when people work on the farms and grow Potato and peas. Migration is also noted from districts of Punjab, Jharkhand, Uttar Pradesh and Bihar. These migrants usually work as construction labour.

7.7.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Lahaul and Spiti	35,900	18,884	15,221	14,262
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG analysis

7.7.5.1 Incremental Supply of labour force in the district

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.

Lahaul and Spiti is expected to witness a growth in supply of 4.8 thousand incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	**Skilled**	**Semi skilled**	**Minimal skilled**	**Skilled**	**Semi skilled**	**Minimal skilled**
L&S	13	224	623	13	226	630
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

Source: KPMG analysis

7.7.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of L&S 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 Lahaul and Spiti.

Sector wise skill level requirements during 2012-22

	2012-17			2017-22		
Sub Sectors	**Skilled**	**Semi-skilled**	**Minimal skilled**	**Skilled**	**Semi-skilled**	**Minimal skilled**
Textiles	8	33	42	12	49	61
Construction	83	165	1,403	95	189	1,609
Transportations and Logistics	9	138	164	9	148	176
Communication	38	113	-	38	113	-
Banking and Financial Services	424	1,273	-	457	1,371	-
Total*	577	1782	1571	634	1956	1809

Source: KPMG Analysis

* Please note: Only the key industries have been highlighted individually in the section. Hence, the total may not add up.

7.7.6 Human Resource Development in the District

7.7.6.1 Current State of Workforce Development

Lahaul and Spiti is mainly a tourist destination and have an equivalent penetration of colleges with respect to Himachal Pradesh. There are two government colleges in the district. There is no private participation because of low population, poor district connectivity and a harsh climate. Moreover, it is difficult to find teachers who are willing to move to this district as there are no medical and other facilities.

Category of College	Himachal	Lahaul and Spiti
Arts, Science and Commerce	101	1
Engineering/Technology/Architecture	20	-
Medical (Allopathic /Dentistry/Homeopathy)	7	-
Nursing	12	-
Pharmacy	14	-
Management/Business Management	39	-
Education/Teacher training	84	-
Law	8	-
Others (including teacher training institutions, polytechnics etc)	105	1
Total	409	2
Density(Colleges per Thousand Population)	0.06	0.06

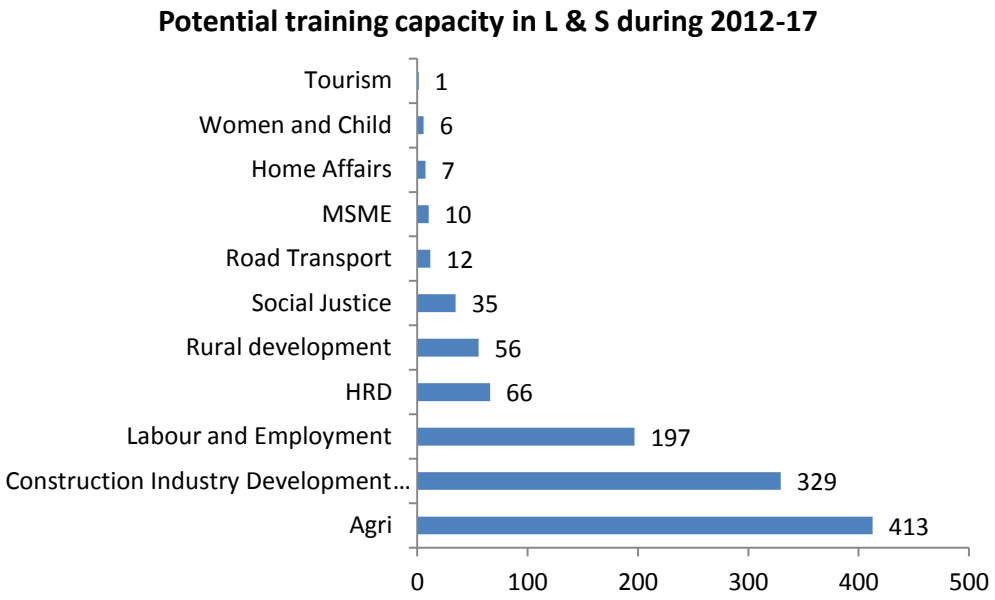
Accessibility of vocational education in Lahaul and Spiti is better than the state average although there are only two governments ITI's in Rongtong and Udaipur. Poor branding of Vocational education in the district makes it difficult for the ITI's to fill up all the seats. Details of vocational education infrastructure in Lahaul and Spiti are presented in the table

District Wise ITI/ITC Infrastructure (2011)[451]									
	Number				Sanctioned Intake				Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total		
Himachal	84	120	204		13,310	10,459	27,364		4
L&S	2	-	2		236	-	236		7.6

[451] http://www.techeduhp.com/itc.html

7.7.6.2 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 seven thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Construction has significant training mandates in the district.



7.7.6.3 Youth Interaction outcomes

Girl students in Udaipur showed higher preference towards becoming teachers at the ITI. These students exhibited interest towards taking up craftsmen training course which is mandatory to apply for a teacher job. Certain students who came with a prior work experience were keen on entrepreneurship. would like to open up an Electrician shop locally and the others preferred a government job over a private one owing to higher job security and salary.

Youth in district showed higher preference for salaried job over entrepreneurship. The latter was preferred by ITI students having prior work experience. The female ITI students were clearly biased towards salaried jobs and significant share aspired to be a teachers. Therefore, there was a keen interest to take up a course in craftsmen training institute, which is mandatory for this profession.

Students were also open to migration to the other districts of Himachal Pradesh, since there are no opportunities except for self employment in Cutting and tailoring within the district. Students admit that there is a lack of career guidance and they are not aware of possible employers who could recruit them after their course. However, most of them believe that they would be able to earn a minimum of INR 10,000 monthly after doing the vocational training from ITI. Most students felt that Polytechnics students are given higher preference than ITI students by the industry and the same is reflected in the salaries offered.

7.7.6.4 Skill mapping and developmental concerns

Lahaul and Spiti is not an industrialized district. The district is snow covered for almost seven months in a year and is cut off from the mainland. Therefore one industry which really has a good scope in district is Earth moving. There are a five earth moving operators companies located in the district. It was noted that the district lacks licensed heavy equipment drivers which are often needed and none are available in the district. Besides, the natives are not interested in the laborious jobs.

Based on the interactions with the local industries, government departments, local population and technical institutes following key observations were derived across the prominent industry of Lahaul and Spiti.

Industry	Skill study outcomes
Earth movers	**Key skill requirements**: JCB operators, Bulldozer drivers and crane drivers **Skill deficits:** None available in the district **Current status**: There are five earth moving companies operating in the district and each of them outsources the entire manpower from Punjab and district Mandi. The locals are least interested in such jobs.
Four wheeler workshop	**Key skill requirements**: Welders **Skill deficits:** No supply of manpower from the ITI **Current status**: There are only two welders in the Udaipur sub-division one of who employs 8 people as helpers.
Steel fabrication	**Key skill requirements**: Diesel Mechanics **Skill deficits:** No supply of trained manpower **Current status**: There are only two mechanics operating in the Udaipur area and two operating in the Keylong area. Helpers are sourced from the other districts and learn on the job
Local tailoring shop	**Key skill requirements**: Tailors, Pattern masters and Mechanics for sewing machine repairs **Skill deficits:** Mechanics **Current status**: ITI-Udaipur has a sanctioned intake of 42 for Cutting, sewing and embroidery out of which only 6 seats are filled. Mechanics are called from district Kullu as there are no experts available in the district.

8.1 District specific recommendations

Lahaul and Spiti, with a very low population is the least industrialized district of Himachal Pradesh. It offers an immense potential in the area of adventure tourism, ropeways, Earth movers, Hydel power, Agriculture (especially Peas and Potato) and Herbs collection and processing. Several companies like DCM, L&T and Reliance are conducting feasibility studies for establishing Hydel power projects. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- High employment potential in areas for growth based on available Resources-**Cattle feed, Apple/Fruit Cider, Potato chips, Hydel power and Herbs collection and processing**
- Employment potential in areas for growth based on demand-**Solar lights, Flour mills, Dairy products, motor mechanics, Earth movers and steel fabrication**
- Poor branding of the ITI's and the ITC in the district as most of the seats go unfilled. This is also due to migration during the winters
- Low motivation of the existing teachers to teach in the government institutes.

Considering these factors, the proposed action plan for stakeholders in skill development in Lahaul and Spiti district would indicate the following priority areas

Stakeholder	Action Points for Stakeholders
NSDC	• Set up camps in schools to bring a paradigm shift in perception of youth for vocational training. • Creating a scholarship fund for high achieving students interested in taking up skill related courses. • Tying up with NGO's to train the locals in Herbs collection like Inulla and Khut
District Administration	• Create an enabling environment such as an option of taking a loan for the students who wish to pursue vocational education through public or private mode. • Focus on training in agricultural products and processing especially in Peas and Potatoes. • The district administration may tie up with companies like Dabur and Himalaya for marketing the medicinal produce by the domestic farmers.
Industry	• Industry may undertake vocational training as a part of their CSR activity. • The industry may support the locals by buying their medicinal produce. • Create an infrastructure in the "project affected areas" and offer education and jobs to the locals
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district.

7.8 Skill Gap Study of District of Mandi

7.8.1 Administrative profile

Mandi is a town and the headquarters of Mandi district. It is bordered by Kangra district in the northwest, Hamirpur and Bilaspur on the west, Solan district on the southwest and Kullu district to the east[452]

Mandi is the seventh largest district of Himachal Pradesh with an area of 3,950 sq km, which accounts for 7 percent of the total share of state area[453].

Administratively, the district has been divided into seven sub divisions, ten tehsils and ten development blocks[454]

7.8.2 Social Profile

7.8.2.1 Demographics

As per Census 2011 estimates, Mandi district has a population of around 9.99 lacs[455] contributing to around 14.5 percent of the total state population. The district population has grown at a decadal growth rate of 10.92 percent during 2011-11.

The district has a population density of 253 people per sq. km[456], which is much higher than the state average density of 123 per s.km. It is the second most populous district of Himachal Pradesh after Kangra. This is due to its central position which it enjoys in the state.

The district has witnessed a decrease in female composition of population during 2001-11. Adult gender ratio of Mandi district has decreased marginally from 1013 females per 1000 males[457] in 2001, to 1012 females per 1000 males[458] in 2011. There has also been a decrease in the child (0-6 age group) gender ratio from 918 females per 1000 males[459] in 2001 to 913 females per 1000 males[460] in the same period. Mandi has a reserved caste population of 28.98 percent[461] as compared to 24.72 percent of Himachal Pradesh as per Census 2001.

7.8.2.2 Literacy

The district has a lower literacy rate of 82.81 percent[462] as compared to the state's average of 83.78 percent[463]. It is an important district which is known to be the educational and cultural centre of the state.

There are 2,363[464] schools in the district, out of which around 26 percent are located in the Mandi Sagar and Karsog block alone. As per 2011 estimates, the drop-out percentage of children in primary level is lower than the state average while for upper primary level it is higher than the state average.

Comparison of district school education statistics with overall state details is presented in the table

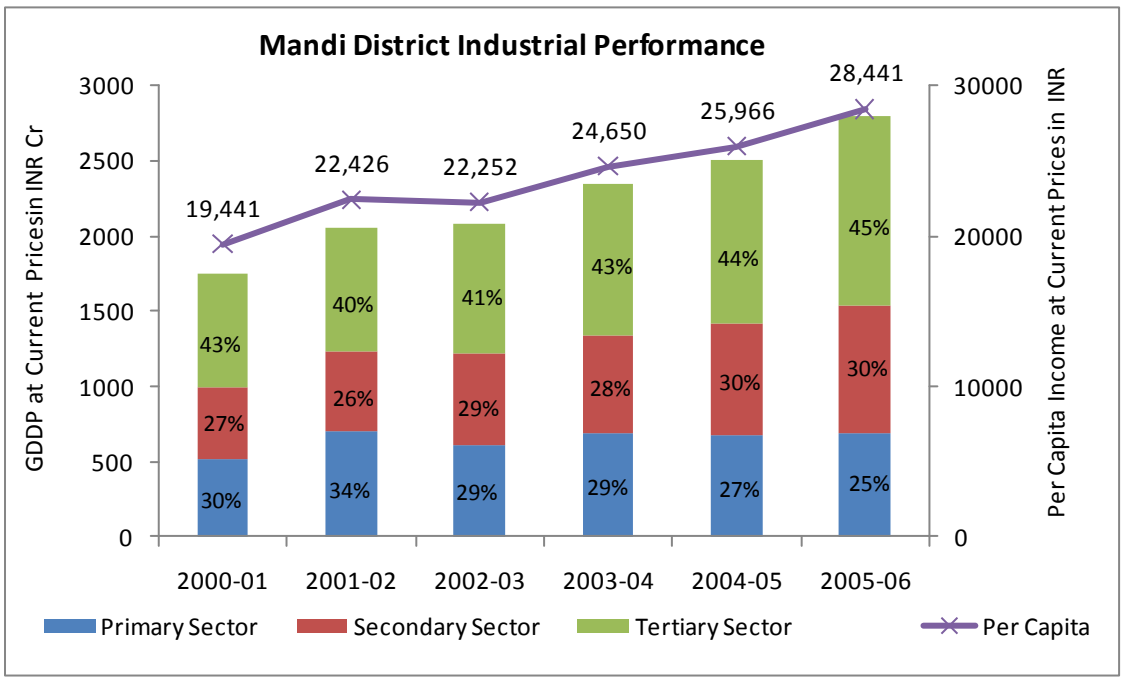
[452] *http://hpmandi.nic.in*
[453] *Himachal Statistical handbook*
[454] *http://hpsolan.nic.in/fact.html*
[455] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[456] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[457] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[458] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[459] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[460] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[461] *Himachal Statistical handbook*
[462] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[463] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[464] *Mandi district statistical handbook*

Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Mandi	85,450	0.15%	55,348	0.32%
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

7.8.3 District Economy

Agriculture and animal husbandry play important roles in the economy of Mandi district. Mandi town is also known as "Chhoti Kashi" of Himachal Pradesh as there are many ancient temples in the city and on the banks of river Beas. Secondary sector constitutes to over 30% percent of district economy, indicating a relatively active manufacturing sector. In terms of absolute contribution, the district accounts for an 8.8 percent share of the total state secondary sector income. The per Capita income of Mandi has also shown a positive trend. Further, per capita Income of Mandi has registered a cumulative growth of 7.91 percent[465] during 2000-06 compared to the state compounded annual growth rate of 6.87 percent during the same period.[466]

Sub-Sector wise GDDP growth trends of Mandi are presented in the graph below.



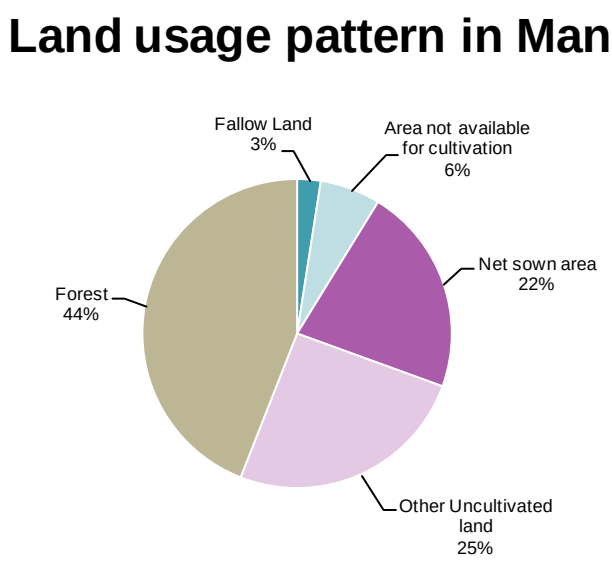
[465] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[466] http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf

7.8.3.1 Agriculture and allied sectors

Mandi district has very congenial climatic conditions for cultivation of high value medicinal and aromatic plants, orchid, and flowers like Roses and Chrysanthemum etc. The district has climatic conditions that support Sericulture as well. Mandi has 39.64 percent[467] of its total geographical area under cultivation. According to the available data of 2005-06 from planning commission, primary sector contributes to around 25 percent towards district GDP. The main agricultural crops are Wheat, Maize, Barley, Paddy, Pulses, Potato, Onion, Ginger and Chilly. Fruits such as Apple, Nuts and dry fruits, Citrus fruits along with other sub-tropical fruits are also grown in the district.

The total cultivated area in Mandi for the year 2009-10 is around 157,684 hectares[468] and out of this 42 percent is used for Wheat cultivation[469]. Maize is another important crop of the district and 30 percent of the total cultivated area falls under this crop. The district is dependent various sources of irrigation like canals, ponds and ground water from tube-wells. As per available data from the district report, around 12, 608ha [470] of land is irrigated through these alternative channels. 82 percent of net sown area in the district is exposed for multiple cropping[471].

District land usage pattern is presented in the chart[472].



According to 2009-10 data

The district has a high forest cover of 44 percent in comparison to the state average of 19 percent. In Mandi, forests play a vital role in the life of people and in the economy, providing timber, fuel wood, medicinal herbs and raw materials.

Apple farming is an important activity in the district. In 2010-11 approximately 15,759 hectare of land was under Apple cultivation producing 46,170 metric tonnes of apple.[473]

[467] *Mandi district statistical handbook*
[468] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[469] *Mandi district statistical handbook*
[470] *Mandi district statistical handbook*
[471] *KPMG analysis (calculated as Area available for multiple cropping divided by Net sown area)*
[472] *Mandi district statistical handbook*
[473] *Mandi district statistical handbook*

Pisiculture is an important allied activity in Mandi district with an approximate production of 655 metric tons of fish in 2010-11. This is approximately 8.87 percent of the total Himachal's produce[474].There are 974 licensed fisherman in the district when compared to 12,343 in the state.[475]

There are 219 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of INR708.83 lacs.[476]

7.8.3.2 Industry

There are three industrial areas in Mandi namely Mandi, Ratti, Bhambla out of which Mandi has the largest number of units in production. The major investors in this belt are Fermarta Biotech which export formulations and Pharmaceuticals.

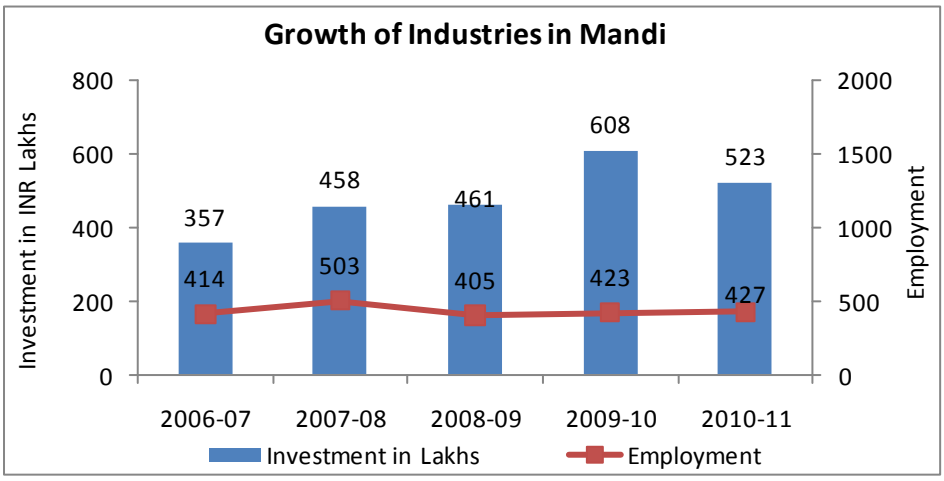
Although the district has no major mineral present, minor minerals available includeSand, Bajri, Building Stone, Clay, Slate etc[477]. Pharmaceutical, formulation products are the major exportable item from the district.

Unused land in Mandi is mostly covered with forests or forms of rich grazing due to sufficient rainfall here. Deodhar, blue pine, silver fir, spruce, chil and various kinds of oak are available here in abundance. Fermarta Biotech Ltd. is a prominent large scale industry operating in the district.

There is a limited scope of ancillarisation of the industry in the district as there are no such industries in the district. As per 2011 data, 95 small scale factories were registered in the district with an investment of INR4.78 crores, employing around 356 people.

Between 2006-07 and 2010-11, Industries in the district have grown at a CAGR of 10 percent adding an additional employment of over 2172 during the period.

Employment trends in MSME segments over the recent years are presented in the chart.[478]



[474] *Himachal Statistical handbook*
[475] *Mandi district statistical handbook*
[476] *Himachal Statistical handbook*
[477] *Department of Mines and Geology*
[478] *Brief Industrial profile of Mandi District, MSME*

Based on discussions with District Industries Center, following potential MSME thrust areas were identified in Mandi district.

Existing	Thrust areas Identified for Promotion
(i) Agro based (ii) Woolen, silk & artificial Thread based clothes (iii) Wood/wooden based furniture (iv) Repairing & servicing (v) Metal based (Steel Fab.) (vi) Paper & Paper products (vii) Rubber, Plastic & petro based (viii) Electrical machinery and transport equipment (ix) Chemical/Chemical based (x) Leather based	Food & Fruit processing, Diary products, Weaving, Wooden products, Ayurvedic medicine, Hosiery products, Leather products, Agriculture Implements, Clothing

Source: Brief Industrial profile of Mandi district, MSME

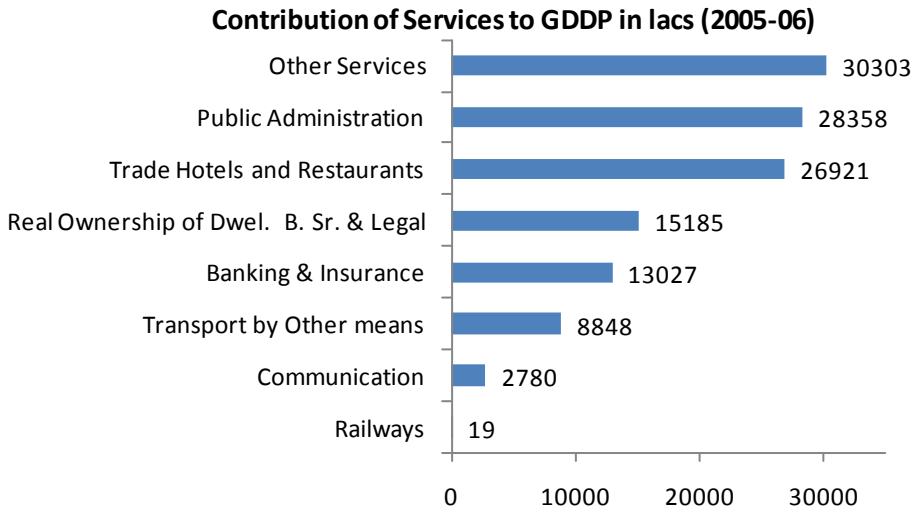
7.8.3.3 Services Sector

Mandi district, the cultural hub of Himachal Pradesh, has given way to an active tertiary sector. The sector contributed to 45 percent[479] of Mandi GDDP during 2005-06.

Services sector in the district, dominated by trade, hotel and restaurants and public administration[480].Trade activity includes wholesale and retail trade in all commodities whether produced domestically, imported or exported. It also includes the activities of purchase and selling.

Tourism is another important sector that contributes significantly towards the tertiary sector in Mandi. Places of tourist importance in the district include Rewalsar Lake, Prashar Lake, Joginder Nagar, Sunder Nagar, Janjheli and Kotli.

Composition of services economy in the district is presented in the table below[481].



Mandi has a number of registered hotels and resorts like Himgiri Resorts, Down Town Hotel, Green Valley Hotel, Hotel Hot Spring International, Mid Way Tourist Resort, Munish Resort, Polo Regency, Visco Resort, Regent Palms Hotel. The

[479] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[480] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[481] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm

number of restaurants and hotels in Mandi has gone up from a 933 to 1,206[482] at a compounded annual growth rate of 2.6% from 2001-2011. Out of these, there are 140 registered Hotels and guest houses with a bed capacity of 2753.[483] These restaurants and hotels employ nearly 726 people.[484]

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was close to 4.66 percent as per 2005-06 estimates. Number of bank branches in the district has grown at 5 percent CAGR between 2009 and 2011[485] with respect to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately INR1, 110 crores was given in the district by the commercial and State banks during 2010-11[486]. During the same time the deposits in these banks were approximately INR3, 383 crores.

The growth in the number of banks from 2009-2011 in the district vis-a-vis the state are highlighted below.

	2009	2010	2011
Mandi	118	125	131
Commercial banks/lac population	12	13	13
Himachal Pradesh	980	1053	1105
Commercial banks/lacs population	16	17	18

Source: Himachal Pradesh district statistical handbook, Himachal Socio-economic profile

Healthcare coverage in terms of population served, stands at 873 persons per bed, is higher than Himachal Pradesh which is 706 people per bed. District has 62 PHCs and 12 CHCs[487]

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Mandi [488]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**6**	**-**
Dispensaries	**0**	**-**
CHC/RH	**12**	**-**
PHC's	**62**	**-**
Total	**80**	**1144**

Based on the interaction with the local people, DIC and technical institutes present in the state, following observations were made for the services industry[489]:

[482] *Mandi District statistical handbook*
[483] *Directorate of tourism,Himachal Pradesh*
[484] *Mandi District statistical handbook*
[485] *Himachal Statistical handbook*
[486] *Himachal Statistical handbook*
[487] *Himachal Statistical handbook*
[488] *Himachal Statistical handbook*

Thrust areas Identified for Promotion
(i) Mobile repair (ii) Fast Food (iii) Travelling agencies (iv) Repair of electrical appliances (v) Computer repair (vi) Auto repair (vii) Dry Cleaning (viii) Bee keeping (ix) Screen printing (x) Floriculture (xi) Dairy farming

7.8.4 Workforce Distribution in the district

7.8.4.1 Current Employment Scenario in Mandi

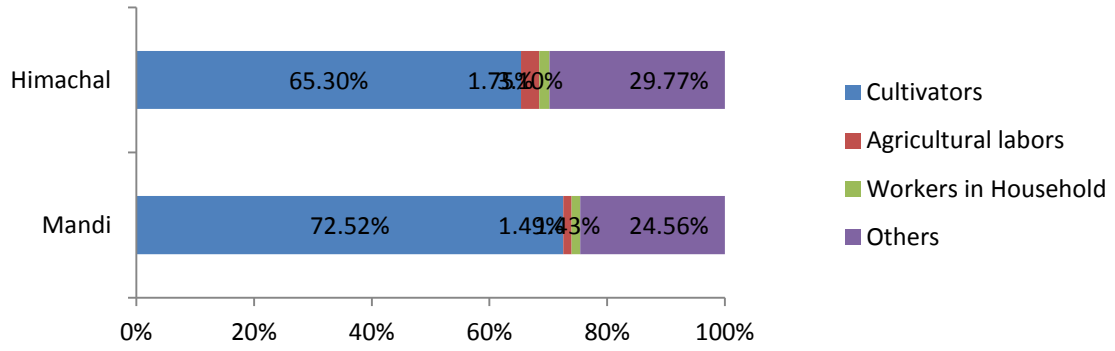
According to the Census 2001 the total worker population in Mandi was 4.54 lakhs, out of which 2.18 lakhs were women and 2.35 lakhs were men. Of the total women worker population, only 20.39 percent females were main workers, 27.8 percent were marginal workers and 51.8 percent were non-workers. Similarly, out of total men workers, 39.43 percent were main workers, 13.2 percent were marginal workers and 47.36 percent were non-workers[490]. This clearly indicates the difference of participation between women and men in the economy.

Region	Total workers	Main workers	Marginal workers	Non-workers
Mandi	50.4%	29.85%	20.55%	49.6%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (50.4 percent) is marginally higher than the state average of 49.24 percent. As per the Census 2001 data, the female worker participation rate is around 48.19 percent. This has significantly improved since 1991 when it was around 42.38 percent. However, high share of non working population still remains especially in the women category, which needs to be addressed through adequate training for self employment generation.

Distribution of workforce in Mandi



Historically, Mandi has been a destination which supplies trained manpower to the other districts of Himachal Pradesh. Majority of this workforce is employed in the Parwanoo, Baddi, Barotiwala and Nalagarh belt which houses maximum number of Industrial units in Himachal Pradesh. The district also supplies the highest number of trainers to different ITI's and Polytechnics across Himachal Pradesh.

[489] *Brief Industrial profile of Mandi District, MSME*
[490] *Gender statistics, Government of Himachal Pradesh*

7.8.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Mandi	1,137,130	598,130	327,893	307,236
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG Analysis

7.8.5.1 Incremental Supply of labour force in the district

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.

Mandi is expected to witness a high growth in supply of 1.04 lacs incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	Skilled	Semi skilled	Minimal skilled	Skilled	Semi skilled	Minimal skilled
Mandi	5,130	2,249	11,140	5,185	2,274	11,259
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

Source: KPMG Analysis

7.8.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Mandi 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 Mandi.

Sector wise skill level requirements during 2012-22

	2012-17			2017-22		
Sub Sectors	Skilled	Semi-skilled	Minimal skilled	Skilled	Semi-skilled	Minimal skilled
Agriculture & Allied Activities	-	-	(3,591)	-	-	(3,544)
Food Processing	9	34	50	11	43	63
Fabricated metal products	10	39	49	9	36	46
Textiles	45	180	225	66	264	330
Construction	3,824	7,647	65,002	4,386	8,773	74,567
Healthcare	664	2,655	-	592	2,370	-
Transportations and Logistics	123	1,953	2,323	132	2,095	2,492
Retail	84	84	676	75	75	601
Hospitality	18	26	132	16	24	118
Communication	720	2,160	-	721	2,164	-
Banking and Financial Services	1,822	5,467	-	1,963	5,888	-
Education and Training	83	556	-	15	100	-
Total	7418	20869	64949	8006	21910	74771

Source: KPMG Analysis

* Please note: Only the key industries have been highlighted individually in the section. Hence, the total may not add up.

7.8.6 Human Resource Development in the District

7.8.6.1 Current State of Workforce Development

Largely a transit station for tourists, Mandi is also home to a number of institutes of higher education's with an equal high penetration of colleges in comparison to state average. IIT-Mandi is one the prominent college for engineering studies in the district. Comparison of higher education infrastructure in Mandi with Himachal is presented in the table:

Category of College	Himachal	Mandi
Arts, Science and Commerce	101	14
Engineering/Technology/Architecture	20	5
Medical (Allopathic/Dentistry/Homeopathy)	7	1
Nursing	12	5
Pharmacy	14	4
Management/Business Management	39	5

Education/Teacher training	84	19
Law	8	-
Others (including teacher training institutions, Polytechnics etc)	105	14
Total	409	67
Density(Colleges per Thousand Population)	0.06	0.06

The district also accounts for significantly high proportion of vocational education capacity in Himachal Pradesh. Mandi has 5 polytechnic institutes and 23 ITI's (both private and government).

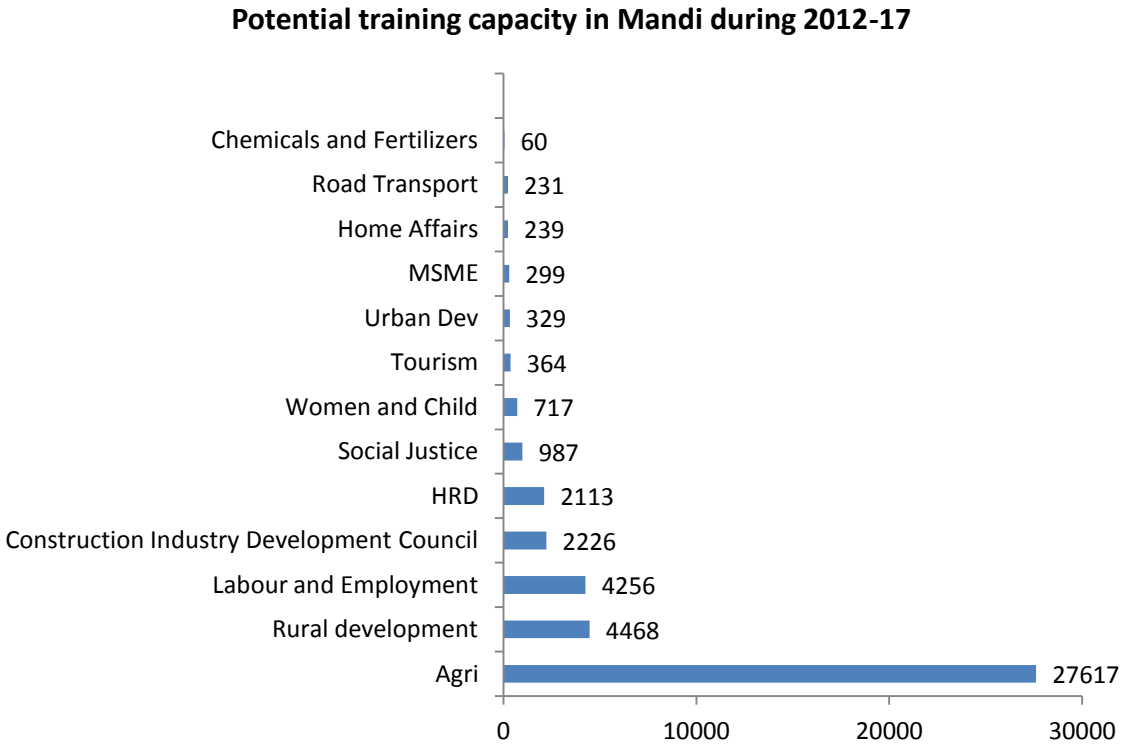
Details of vocational education infrastructure in Mandi is presented in the table:

District Wise ITI/ITC Infrastructure (2011)[491]								
	Number				**Sanctioned Intake**			**Density(Seats per Thousand Population)**
Region	**Govt ITI**	**Private ITI**	**Total**		**Govt ITI**	**Private ITI**	**Total**	
Himachal	84	120	204		13,310	10,459	27,364	4
Mandi	13	10	23		1,675	692	2,367	2.39

[491] *http://www.techeduhp.com/itc.html*

7.8.6.2 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 30 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of agriculture and Ministry of rural development have significant training mandates in the district.



7.8.6.3 Students Interaction outcomes-Youth Aspirations

Students in the ITI were noted to be coming from a middle class background with a family income between INR 10,000 to 15,000 per month. Most students were open to migrate for job opportunities provided their salary is between INR 35,000 to 40,000 per month. Students have an equal inclination towards private or government job. Students felt that there is a lack of career guidance as they are not aware as to which companies can give them jobs after completing the certificate. Polytechnics are perceived to be a better option as it is a diploma and also it awards them better salaries. All students expected a salary in the range of INR 8,000 to 12,000

7.8.6.4 Skill mapping and developmental concerns

Mandi is not an industrialized district. There is only one large scale industry which manufactures Pharmaceuticals. However, there are a number of Small scales Agro based, Woolen and silk based clothes manufacturing, Wood and wooden based furniture industries along with Repairing and servicing based workshops. People from the district often migrate to border districts like Solan which has ample opportunities to work in the manufacturing sector.

Based on the interactions with the local industries, government departments, local population and technical institutes following key observations were derived across the prominent industry of Mandi

Industry	Skill study outcomes
Furniture	**Key skill requirements:** Carpenter ,welder, fitter **Skill deficits:** None **Current status:** Attrition is very high because students get attracted to metropolitan cities. Thus, students from ITI/polytechnics do not want to work here even though the net salary given to them is same. According to the surveyed company ITI students come for apprenticeship (6 months) only because they need to get their certificate and then apply for jobs outside the state.

8.1 District specific recommendations

There is large scope for trade in Mandi district as it has a trade route from Ladakh to various locations in Punjab such as Hoshiarpur, amongst others. Significant opportunities for skill development are mainly across the Construction sector, Communication, Banking and financial services, hosiery products, ginger processing and wooden furniture sector. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- High employment potential in- **Agriculture, BFSI, Communication, Transportation** and **automobile repairing.**
- **Wooden furniture**, **Garment industry** & **Ayurvedic medicine** will witness high demand of skilled and semi skilled manpower.
- The growth in trade in the district has spurred indirect employment demand in certain sectors like **Warehousing, security services** and **facilities management.**
- Agriculture is the largest employer in the district and shall witness significant requirements of minimally skilled manpower in the district for next five years.
- Poor branding of the ITI's and the ITC in the district.
- Low motivation of the existing teachers to teach in the government institutes.

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

Stakeholder	Action Points for Stakeholders

NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors
	  ○ Agriculture
	  ○ Heavy vehicle driving
	  ○ Security services
	  ○ Auto repair
	• Forging public private partnerships with leading private sector firms like Fermarta Biotech to create an inclusive ecosystem for skill development.
	• Creating a pre-industry environment at ITI level so that students are mentally & physically prepared to adapt themselves during placements
	• Set up camps in schools to bring a paradigm shift in perception of youth for vocational training. This could be materialized by creating a scholarship fund for high achieving students interested in taking up skill related courses.
	• Enhancing a network of skills training providers and policymakers for effective coordination and facilitation which can be achieved online through database

	management system.
District Administration	• Setting up small scale industries next to rural areas which will be responsible for the employment generation of all the rural people of that particular area. • Create an enabling environment such as an option of taking a loan, in the same way one can, if he chooses to pursue a degree program. Currently, the fee for courses like COE is considered to be quite high by the students. This could be done by associating a lead bank with each ITI in the district. • Regional development policy goals should be made to increase the income of local producers. Reduced poverty would lead to a lower incidence of child labour, thus effectively cutting the vicious cycle of intergenerational poverty transmission in the district. • Make effective use of Public relation officer's to promote campaigning for admitting school dropouts in MES courses. The current target oriented approach is benefitting only a certain strata of the beneficiaries (people looking to up skill themselves) • Creating an infrastructure for Skill development of teachers (such as a tool room) within the district and make trainings mandatory for all the trainers. Optionally, the same could be started at the State level. • Focus on training in agricultural products and processing especially in apple and ensure participation of farmers in training programs from the Centre of excellence in horticulture. This may be achieved by providing startup subsidies on input costs. • Maintaining a centralized online database management system of students with their detailed qualification thereby helping industries in exploring the right talent, henceforth increasing employment.
Industry	• Cogitating on the wage norms for skills. • Setting up of corporate interaction cell at every ITI. This will ensure both the students training level & industries expectations at same grounds. • Jobs required to be performed in an industry should be assessed on National occupation standards which should remain same across the country. This will allow a student to work in any part of the country. • Providing options for pursuing skill development programs on the job. • Participate in training the ITI's trainers to improve the quality of training delivery and relevance of pedagogy to industry. • Support the institutional management committee under the PPP scheme to make it more effective and ensure adequate placements and effective training. • Provide suitable working conditions in sectors involving extensive usage of manual labor. • Follow the two pronged approach to start training centers within their own campus and training on specific sector skills and then recruiting the same candidates. • Should focus on providing PPO's to students after their apprenticeship
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district. Curriculum should be designed and aligned in such a way that the student gets an option for placement • Private players may develop curriculum for training students on soft skills. Further, they may forge partnerships with existing government ITI's and focus of soft skill training to students as well as teachers.

7.9 Skill Gap Study of District of Shimla

7.9.1 Administrative profile

Shimla is the capital and administrative headquarters of the state of Himachal Pradesh. It is bounded by Mandi and Kullu in the north, Kinnaur in the east, the state of Uttarakhand in the south east and Solan and Sirmaur to the south.

Shimla is the sixth largest district of Himachal Pradesh in terms of geographical area. The area of district is 5,131 sq km, which accounts for 9.2 percent of the total share of state area[492].

Administratively, the district has been divided into six sub divisions (Shimla, Theog, Rampur, Rohru, Chopal and Dodra Kwar); twelve tehsils and ten blocks (Mashobra, Basantpur, Rampur, Narkanda, Chauhara, Jubbal, Theog, Rohru, Chaupal and Nankhari)[493].

7.9.2 Social Profile

7.9.2.1 Demographics

As per Census 2011 estimates, Shimla district has a population of around 8.13 lakhs[494], contributing to 11.8 percent of total population. The district population has grown at a decadal growth rate of 12.66 percent in the period of 2001-11[495].

The population density of 159 people per sq. km[496] is much higher than the state average density of 123 per sq.km. The high concentration of population in the district can be attributed to it being the administrative headquarters of Himachal Pradesh and hence a significant population working in the public sector jobs. The district is also an important Apple growing region and offers good employment opportunities for the migratory labour in the orchards.

The district has witnessed increase in female composition of population during 2001-11. The adult gender ratio of Shimla district has increased from 896 females per 1000 males[497] in 2001, to 916 females per 1000 males[498] in 2011. However, there has been a slight decrease in the child (0-6 age group) gender ratio from 929 females per 1000 males[499] in 2001 to 922 females per 1000 males[500] in the same period. Shimla has a reserved caste population of 26.13 percent[501] as compared to 24.72 percent for Himachal Pradesh.

7.9.2.2 Literacy

The district has a higher literacy rate of 84.55 percent[502] , as compared to the state's average of 83.78 percent[503] . As a large and a growing city of Himachal Pradesh, Shimla is home to many well-recognized colleges and research institutions in India like Bishop Cotton School, Auckland House School, Shimla Public School, St Edwards School, Tara Hall, Chelsea, Hainault Public School, DAV, Indira Gandhi Medical College and Dental college, The Indian Institute of Advanced Study and the Himachal Pradesh University. There are 2,203[504] schools in the district, out of which more than 30 percent are

[492] *Himachal statistical handbook*
[493] *hpshimla.nic.in*
[494] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[495] *http://www.census2011.co.in/census/district/236-bilaspur.html*
[496] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[497] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[498] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[499] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[500] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[501] *Himachal Statistical handbook*
[502] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[503] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[504] *Shimla statistical handbook*

located in the Theog and Chaupal block alone. As per 2011 estimates, the percentage of drop-out children in both primary and upper primary level is lower than the state average.

Comparison of district school education statistics with overall state details is presented in the table.

Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Shimla	74,331	0.05%	43,88	0.13%
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

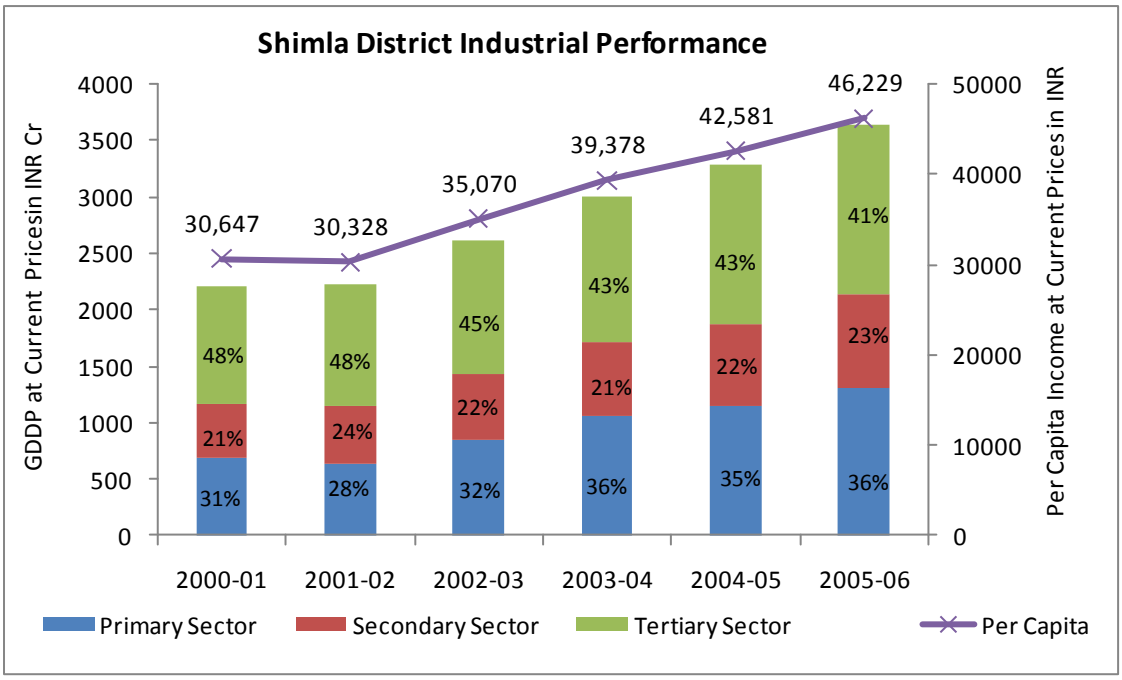
7.9.3 District Economy

Shimla, a popular hill station of India, is an administrative district of Himachal Pradesh. The economy is mainly dependent on tourism, hospitality, agriculture and horticulture. A significant portion of local people in Shimla work either tourism industry or with state administrative department. Shimla is ranked as number one in the state in terms of total share (19.2 percent) of tourist's arrival from all over India.

The economy of the district is also dependent on the small scale industries like jute, food processing and the wood industry. The district economy has witnessed a higher cumulative growth of 8.64 percent[505] during 2000-06, in comparison to the state average growth of 8.44 percent[506]. Secondary sector contributes to over 23 percent of the district economy, indicating a relatively active manufacturing sector. The district accounts for a significant share of the total state tertiary sector income of around 17 percent. Further, the per capita Income of Shimla has registered a cumulative growth of 8.57 percent[507] during 2000-06 compared to the state compounded annual growth rate of 6.87 percent, during the same period.[508]

Sub-Sector wise GDDP growth trends of Shimla are presented in the graph below.

[505] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[506] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[507] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[508] *http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf*



7.9.3.1 Agriculture and allied sectors

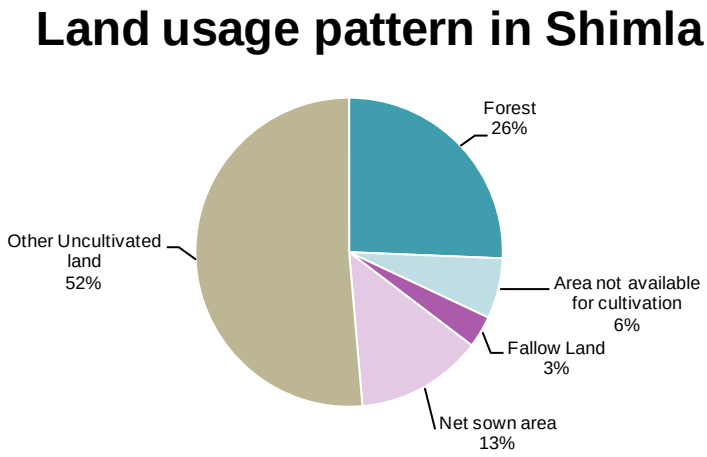
Shimla has given a place of pride to the state of Himachal Pradesh, in the production of apples and hence it is also known as the "Apple State of India". Agriculture and horticulture are the most important economic activities of this district.

According to the available data of 2005-06 from planning commission, primary sector contributes to around 36% towards district GDP. The main agricultural crops are Maize, Wheat, Barley, Paddy, Pulses, Potato and Chilly. Fruits such as Apple, Nuts and dry fruits along with citrus and other sub-tropical fruits are also grown in the district.

The total cultivated area in Shimla for the year 2007-08 is around 89,454 hectares[509] and out of this 12.1 percent is used for Wheat cultivation[510] .Maize is another important crop of the district and 11.6 percent of the total cultivated area falls under this crop. The district is dependent upon various sources of irrigation like canals, ponds and ground water from tube-wells. Around 2,346ha [511] of land was irrigated through these alternative channels as per 2011-12 estimates. With 32.53 percent of net sown area in the district exposed for multiple cropping[512], there is a need to promote minor irrigation techniques to sustain agricultural growth in Shimla.

District land usage pattern is presented in the chart[513].

[509] *Shimla district statistical handbook*
[510] *Shimla district statistical handbook*
[511] *Shimla district statistical handbook*
[512] *KPMG analysis (calculated as Area available for multiple cropping divided by Net sown area)*
[513] *Shimla district statistical handbook*



According to 2007-08 data

The district has a high forest cover of 26 percent in comparison to the state average of 19 percent, which can be attributed to the low level of industrialization and the special measures undertaken to maintain a sufficient level of forest cover in the district.

Apple farming is an important activity in the district. In 2010-11, approximately 36,063.96 hectares of land was under Apple cultivation producing 250,372 metric tons of Apples.

Pisiculture is an allied activity in Shimla district, with an approximate production of 218.4 metric tons of fish in 2011-12.This is less than 5 percent of the total state's produce[514]. There are 436 licensed fishermen in the district when compared to 12,343 in the state.[515]

There are 161 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of INR3.34 lakhs.[516]

7.9.3.2 Industry

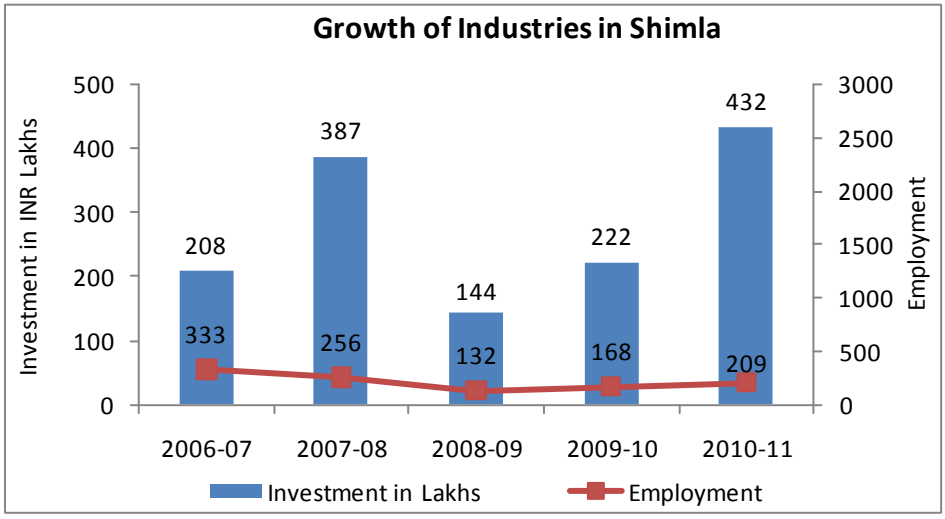
There are four key industrial areas in Shimla namely Shoghi, Jais, Mehandli and Raighat. However, the main concentration of Industries is in the Shoghi block. The district has no major minerals available. However, sand and building stone are the two minor minerals which are commercially exploited in the district[517]. Being industrially underdeveloped, there are no major exportable items from Shimla.

Forests play an important role in the economy of the district and major forest produce available in the district are timber and charcoal. The major medicinal herbs found in the district are Dhoop, Kaur, Kuth, Guchhie, Kakar Singi, Bhojpatra etc. Adani Agri Fresh Pvt. Ltd. and HPMC, Shimla are the only two prominent medium scale industries operating in the district.[518]

[514] *Shimla district statistical handbook*
[515] *Shimla district statistical handbook*
[516] *Himachal Statistical handbook*
[517] *Department of Mines and Geology*
[518] *District industry centre*

There is a limited scope of ancillarisation of the industry in the district as there are only two medium-large scale units in the area. As per 2011 data, 77 small scale factories were registered in the district with an investment of INR9.61 crores, employing around 209 people. Between 2006-07 and 2010-11, there has been an incremental investment in the district of Rupees 1,393 lakhs generating an employment for 1,098 people.

Employment trends in MSME segments over the recent years are presented in the chart.[519]



Based on discussions with District Industries Center, following potential MSME thrust areas were identified

Existing	Thrust areas Identified for Promotion
(i) Repairing & servicing (ii) Agro based (iii) Metal based (Steel Fab.) (iv) Wood/wooden based furniture (v) Ready-made garments & embroidery (vi) Paper & Paper products (vii) Rubber, Plastic & petro based (viii) Chemical/Chemical based (ix) Mineral based (x) Engineering units (xi) Leather based	Food & Fruit processing, Dairy products, Flour Mill, Wooden products, Agriculture-Horticulture implements and Hosiery Products

Source: Brief Industrial profile of Shimla district, MSME

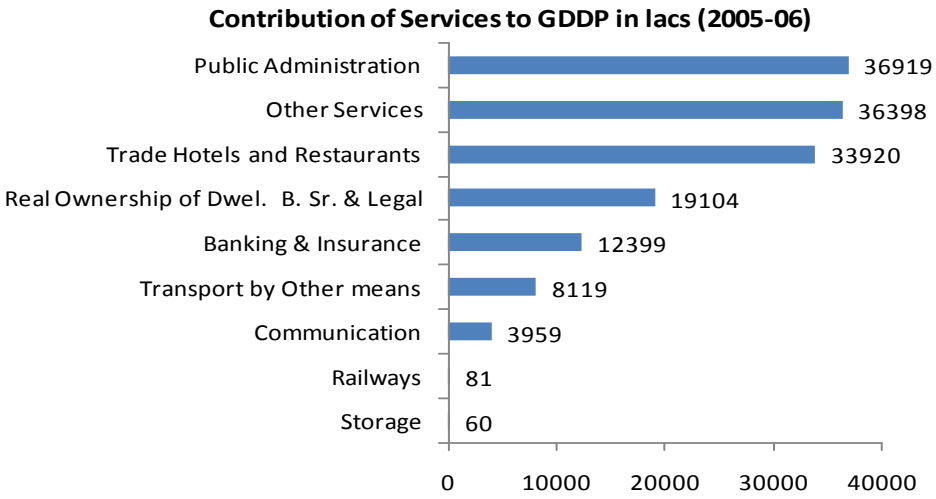
7.9.3.3 Services Sector

Shimla has low industrialization and is dominated by small service enterprises. Therefore, the contribution from the manufacturing sector is relatively less as compared to the primary and the tertiary sector. Being the destination of choice for the tourists, the service sector contributes significantly towards the district's GDP. The tertiary sector contributed to 41 percent[520] of Shimla GDDP during 2005-06.

Services sector in the district is dominated by public administration and trade, hotel and restaurants[521].Trade activity includes wholesale and retail trade in all commodities. It also includes the activities of purchase and selling.

Places of tourist importance in the district include Himachal State Museum & Library, Vice regal Lodge & Botanical Gardens, The Ridge, The Mall, Prospect Hill, Summer Hill, Potter Hill, Glenn, Elysium Hill, Tara Devi, Christ Church, Lakkar bazaar, Kufri and Green valley. Composition of services economy in the district is presented in the chart below[522].

[519] *Brief Industrial profile of Shimla District, MSME*
[520] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[521] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*



Shimla has a number of registered hotels and resorts like Alpine Heritage Residency, Ashiana Regency, Asia the Dawn, Baljeet Regency, Brightland, Camp Potter Hill, Chapslee, Clarks, Combermere, East Borne, Landmark, Leela Regency and Radisson etc. The number of restaurants and hotels in Shimla has gone up from a mere 279 to 1,279[523] at a compounded annual growth rate of 16.45%from 2001-2011.Out of these, there are 393 registered Hotels and guest houses with a bed capacity of 10,210.[524] These restaurants and hotels employ nearly 4,907 people.[525]

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was close to 3.41 percent as per 2005-06 estimates. The number of bank branches in the district has grown at 4.9 percent CAGR between 2009 and 2011[526] with respect to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately INR3, 487 crores was given in the district by the commercial and State banks during 2010-11[527]. During the same time the deposits in these banks were approximately INR11, 519 crores.

The growth in the number of banks from 2009-2011 in the district Vis a Vis the state are highlighted below.

	2009	2010	2011
Shimla	160	170	176
Commercial banks/lacs	20	21	22
Himachal Pradesh	980	1053	1105
Commercial banks/lacs	16	17	18

Source: Himachal Pradesh district statistical handbook, Himachal Socio-economic profile

Healthcare coverage in terms of population served, stands at 360 persons per bed, is lower than Himachal Pradesh which is 706 people per bed. District has 86 PHCs and 7 CHCs[528]

Details of healthcare infrastructure in the district are provided in the table.

[522] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[523] *Shimla district statistical handbook*
[524] *Directorate of tourism, Himachal Pradesh*
[525] *Shimla District statistical handbook*
[526] *Himachal statistical abstract*
[527] *Himachal Statistical handbook*
[528] *Himachal Statistical handbook*

Healthcare Infrastructure in Shimla [529]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**12**	**-**
Dispensaries	**1**	**-**
CHC/RH	**7**	**-**
PHC's	**86**	**-**
Total	**106**	**2,258**

Being the third largest district in terms of population, there is a good potential for the setting up of service enterprises in Shimla. Based on the interaction with local people, DIC and technical institutes present in the district, following observations were made for the services industry[530]:

Thrust areas Identified for Promotion
(i) Fast food (ii) Cyber Café (iii) Restaurants (iv) Colour lab (v) Mobile repair (vi) Auto repair (vii) Cold storage (viii) Dry cleaning (ix) Bee keeping (x) Travelling agencies (xi) Ropeways (xii) Beauty parlours (xiii) Screen printing (xiv) Computer repair (xv) Repair of electrical appliances (xvi) Dairy farming (xvii) Lamination and Floriculture

7.9.4 Workforce Distribution in the district

7.9.4.1 Current Employment Scenario in Shimla

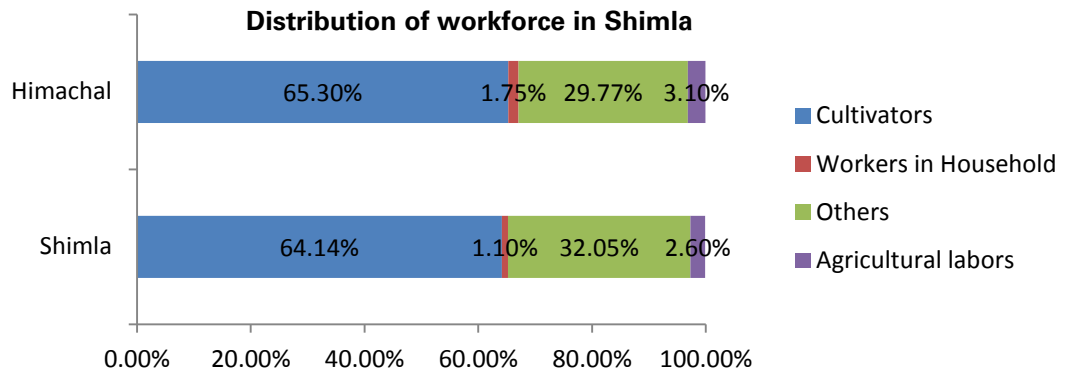
According to census 2001, the total worker population in Shimla was 3.70 lakhs, out of which 1.51 lakhs were women and 2.19 lakhs were men. Of the total women worker population, only 31.92 percent females were main workers, 12.32 percent were marginal workers and 57.76 percent were non-workers. Similarly, out of total men workers, 51.63 percent were main workers, 5.83 percent were marginal workers and 42.48 percent were non-workers[531]. This clearly indicates the wide difference of participation rate between women and men in the district.

Region	Total workers	Main workers	Marginal workers	Non-workers
Shimla	51.24%	42.31%	8.93%	48.76%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (51.24 percent) is marginally higher than the state average of 49.24 percent. As per the Census 2001 data, the female worker participation rate is around 44.24 percent. This has marginally improved since 1991, when it was only 41.29 percent. However, high share of non working population still remains especially in the women category, which needs to be addressed through adequate training for self employment generation.

[529] *Himachal Statistical handbook*
[530] *Brief Industrial profile of Shimla District, MSME*
[531] *Gender statistics, Government of Himachal Pradesh*



Significant migration takes place in Shimla, due to it being an administrative capital. Migrants come from all the districts of Himachal Pradesh, as well as nearby states like Punjab, Haryana .Majority of this workforce is employed in administrative services, banks as well as restaurants and hotels. Seasonal migration is also noticed during the summer months, when there is an influx of tourists from all over India.

7.9.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Shimla	925,841	486,993	267,223	250,388
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG analysis

7.9.5.1 Incremental Supply of labour force in the district

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.

Shimla is expected to witness a high growth in supply of 1.04 lacs incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	Skilled	Semi skilled	Minimal skilled	Skilled	Semi skilled	Minimal skilled
Shimla	9,969	2,652	2,471	10,076	2,681	2,498

Himachal	43,476	26,005	52,513	43,942	26,284	53,077

7.9.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Shimla 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 Shimla. According to the estimates, in the next 5 years, Shimla is expected to witness an incremental manpower requirement of over 75.5 thousand [532] which is expected to normalize to 28.4 thousand [533] during 2017-22.

Sector wise skill level requirements during 2012-22

	2012-17			2017-22		
Sub Sectors	Skilled	Semi-skilled	Minimal skilled	Skilled	Semi-skilled	Minimal skilled
Agriculture & Allied Activities	-	-	(940)	-	-	(928)
Food Processing	11	42	61	14	53	77
Fabricated metal products	34	138	172	32	129	162
Construction	3,571	7,143	60,713	4,097	8,194	69,647
Healthcare	502	2,009	-	482	1,929	-
Transportations and Logistics	93	1,482	1,763	100	1,589	1,891
Retail	192	192	1,539	171	171	1,369
Hospitality	119	179	894	106	160	799
Communication	1,263	3,790	-	1,266	3,797	-
Banking and Financial Services	735	2,204	-	791	2,373	-
Total	6597	17659	64255	7084	18519	73090

Source: KPMG Analysis

* Please note: Only the key industries have been highlighted individually in the section. Hence, the total may not add up.

7.9.6 Human Resource Development in the District

7.9.6.1 Current State of Workforce Development

Largely an industrial cum tourist destination, Shimla is also a home to the number of institutes of higher education's with a good penetration of colleges in comparison to state average. St. Beed girl's college, APG Shimla University and Atal Bihari Vajpayee government institute of Engineering and technology are some of the known institutes providing higher education in the district.

[532] KPMG Estimates on Incremental Manpower Requirement
[533] KPMG Estimates on Incremental Manpower Requirement

The comparison of higher education infrastructure in Shimla with Himachal is presented in the table.

Category of College	Himachal	Shimla
Arts, Science and Commerce	101	12
Engineering/Technology/Architecture	20	1
Medical (Allopathic/Dentistry/Homeopathy)	7	2
Nursing	12	4
Pharmacy	14	1
Management/Business Management	39	5
Education/Teacher training	84	10
Law	8	-
Others (including teacher training institutions, Polytechnics etc)	105	26
Total	409	61
Density(Colleges per Thousand Population)	0.06	0.07

Accessibility of vocational education in Shimla is lower than the state average. Shimla has 11 government and 5 private ITI's with a sanctioned intake of 1633. Besides, the government ITI's also train a significant population of MES candidates whose trainings last for 90 -500 hours. However, due to the high population in the district the overall penetration of vocational education is low.

Details of vocational education infrastructure in Shimla are presented below.

District Wise ITI/ITC Infrastructure (2011)[534]								
	Number				Sanctioned Intake			Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total	
Himachal	84	120	204		13,310	10,459	27,364	4
Shimla	11	5	16		1339	294	1,633	2

[534] *http://www.techeduhp.com/itc.html*

7.9.6.2 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 seven thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Labour and Employment has significant training mandates in the district.

7.9.6.3 Youth Interaction outcomes

Students in Shimla showed higher preference towards government job over private owing to higher job security and salary. Students were also open to migration to the other districts or states. Most students felt that Polytechnics students are given higher preference than ITI students by the industry and the same is also reflected in the salaries offered. The industry in Shimla confirmed that salaries offered to the students from Polytechnics are almost 40-50% higher than what is being offered in an ITI. Students of the districts appeared to have low awareness in terms of career prospects. COE-IT students had low awareness about the career opportunities and were willing to work anywhere they would find a job. Most youth preferred salaried job over self employment.

7.9.6.4 Skill mapping and developmental concerns

Shimla is not a very industrialized district and is mainly dominated by the service industry and Apple farming. There are only two medium-large scale industries and both are in the food processing sector. However, there are a number of Small scale, Handicrafts, Handlooms and Khadi & village industries. People from the other district and neighboring states like Punjab often migrate to Shimla during summer seasons to work in the hospitality sector. Adani agri fresh and HPMC are the biggest job providers in the district. The district lacks Refrigeration mechanics which are often required in the food processing industry

Based on the interactions with the local industries, government departments, local population and technical institutes following key observations were derived across the prominent industry of Shimla.

Industry	Skill study outcomes
Controlled atmospheric storage (Fruit storage)	**Key skill requirements**: Electrical, Fitter, Mechanic instrumentation, Refrigeration mechanics, COPA **Skill deficits:** Refrigeration mechanics **Current status**: The company surveyed has imported all its machinery from Europe, since there was no technology available in India that could store Apples for as long as 8-9 months. Three kinds of people are hired 1) People with knowledge of horticulture (YS Parmar horticulture university), 2) Engineers (Diploma holders from Polytechnics) and 3) Students from ITI's. The surveyed company expects students from ITI's to be aware of the basic PLC operations and troubleshoot problems. The hiring of refrigeration mechanics happen from Mandi and Rohru ITI's and the company is currently looking for multi skilled operators instead of specialized ones. Company pays 30-40 percent higher salaries to the diploma holders than the ones from ITI.

8.1 District specific recommendations

Shimla district is the most visited tourist destination in Himachal Pradesh. The district has an active primary and tertiary sector with Education and Horticulture produce processing driving the employment. In addition to being a local hub for transportation and trade, Shimla is the area's healthcare centre hosting a medical college and four major hospitals. The district with significant tourist and commercial activity has significant opportunities for skill development mainly across the manufacturing and tourism sector. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- High employment potential in the tertiary sector-**Tourism, Retail, Hospitality including Restaurants and Hotels, Chefs, Tour operators and Transportation (Taxi services)**
- The growth in industrial development in Shimla has spurred indirect employment demand in certain sectors like **security services and facilities management**
- Employment growth may also be seen in the **Fruit and vegetable processing including and refrigeration**
- Sustainable growth of Retail in the district would require multi faced skill development for the workers including ***sales and marketing***
- Limited MSME base in the district
- COE course in IT has a low success rate both in terms of placements and pass percentage
- Low motivation of the existing teachers to teach in the ITI's due to non security of jobs

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

Stakeholder	Action Points for Stakeholders
NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors

	○ Tourism ○ Retail ○ Hospitality ○ Security with focus on e-surveillance ○ Food Processing • Forging public private partnerships with leading public /private sector firms like HPMC or Adani in Shimla to create an inclusive ecosystem for skill development in Food processing. • Creating a scholarship fund for high achieving students interested in taking up skill related courses.
District Administration	• Ensure women participation in skill development, as 59 percent of all the women in the district are Non-workers. • Centre of Excellence scheme should be promoted appropriately in the district. • Create an enabling environment such as an option of taking a loan for the students who wish to pursue vocational education through public or private mode. • Make effective use of Public relation officer's to promote campaigning for admitting school dropouts in MES courses. The current target oriented approach is benefitting only a certain strata of the beneficiaries (people looking to up skill themselves) • Creating an infrastructure for Skill development of teachers (such as a tool room) within the district and make trainings mandatory for all the trainers. Optionally, the same could be started at the State level. • Focus on training in horticulture products and processing especially in Apples as the district has a good output.
Industry	• Industries should undertake vocational training as a part of their CSR activity. • Increase desirability of jobs through improved work environment. • Participate in "train the trainer" programs to improve the quality of training delivery • Industry can collaborate with skill development institutes for updating the course content and creating linkages for placements. • Support the institutional management committee under the PPP scheme to make it more effective and ensure adequate placements and effective training.
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district. Curriculum should be designed and aligned in such a way that the student gets an option for placement. Experts in form of guest lecturers from the industry could be called to deliver modules. • Update machinery and provide manuals in workshops for practical classes. • Private players may develop curriculum for training students on soft skills. Further, they may forge partnerships with existing government ITI's and focus of soft skill training to students as well as teachers. This would open another revenue stream for these players.

7.10 Skill Gap Study of District of Sirmaur

7.10.1 Administrative profile

Sirmaur is the most south-eastern district of Himachal Pradesh with its headquarters at Nahan. It is bounded by district Shimla in the north, Uttar Pradesh in the east, Haryana in the south and by Solan district in the north-west.

Sirmaur is the eight largest district of Himachal Pradesh in terms of geographical area. The area of district is 2,825 sq km, which accounts for 5 percent of the total share of state area[535].

Administratively, the district has been divided into four sub divisions (Nahan, Paonta Sahib, Rajgarh and Sangrah); six tehsils (Nahan, Paonta Sahib, Pacchad, Shillai, Sangrah, Rajgarh) and six blocks (Nahan, Paonta Sahib, Pacchad, Shillai, Sangrah, Rajgarh)[536].

7.10.2 Social Profile

7.10.2.1 Demographics

Sirmaur district has a population of around 5.30 lakhs[537], as per Census 2011 estimates. The district population has grown at a decadal growth rate of 15.53 percent in the period of 2001-11.

The population density of 188 people per sq. km in the district is much higher than the state average density of 123 per sq.km. The high concentration of population can be attributed to the fact that the district is an important industrial town and has good employment opportunities especially in the areas like Paonta Sahib and Kala Amb.

The decadal growth rate in the district (2001-11) was 15.61percent as compared to 12.81 percent for Himachal Pradesh. The district has witnessed increase in female composition of population during 2001-11. The adult gender ratio of Sirmaur district has increased from 901 females per 1000 males[538] in 2001, to 915 females per 1000 males[539] in 2011. However, there has been a decrease in the child (0-6 age group) gender ratio from 934 females per 1000 males[540] in 2001 to 931 females per 1000 males[541] in the same period. Sirmaur has a reserved caste population of 30.83 percent[542] as compared to 24.72 percent of Himachal Pradesh.

7.10.2.2 Literacy

The district has a low literacy rate of 79.98 percent[543] , as compared to the state's average of 83.78 percent[544] . The low rate of literacy in the district can be accounted to a low penetration of schools across blocks like Shilai and a low literacy amongst the SC population, which is only around 63.6 percent as compared to 70.3 percent for Himachal Pradesh[545].The low literacy amongst the reserved population is mainly due to the lack of awareness amongst this strata of population.

There are 1,348[546] schools in the district, out of which more than 40 percent are located in the Paonta Sahib, Sanghad and Nahan block. As per 2011 estimates, drop out percentage of in both primary and upper primary level is far lower than the

[535] *Himachal statistical handbook*
[536] *hpsirmaurr.nic.in*
[537] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[538] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[539] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[540] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[541] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[542] *http://www.censusindia.gov.in/*
[543] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[544] *http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html*
[545] *Himachal statistical handbook*
[546] *Sirmaur statistical handbook 2011*

state average. Majority of drops outs are contributed by children from migrant labour communities and hence special focus needs to be provided to the same.

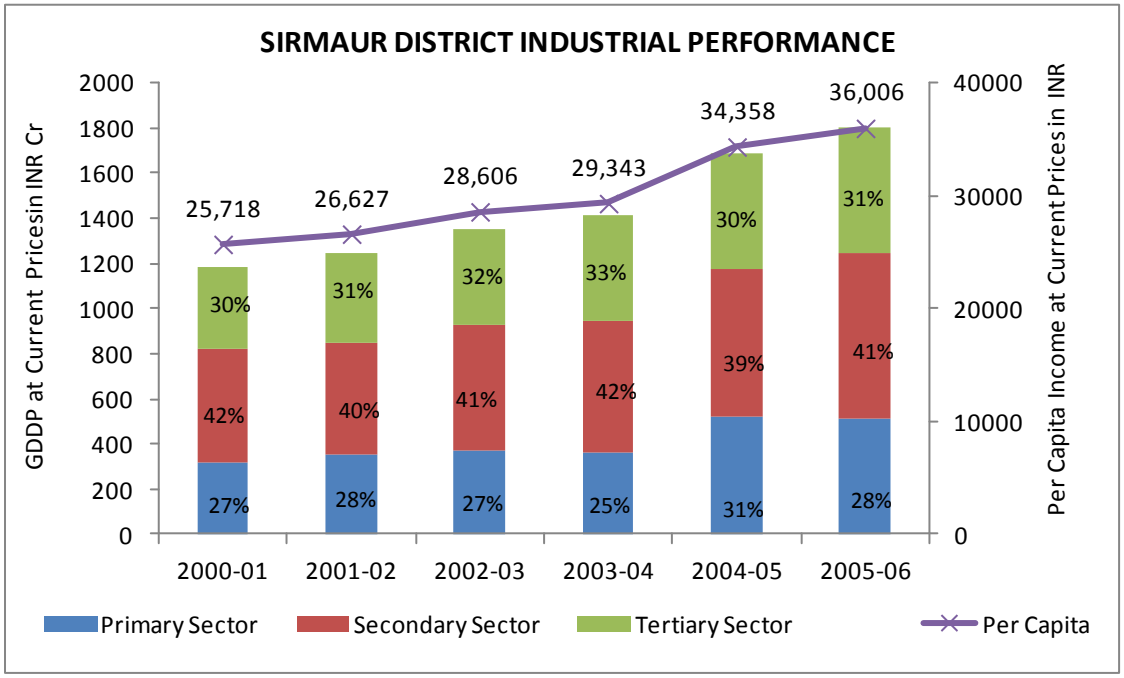
Comparison of district school education statistics with overall state details is presented in the table

Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Sirmaur	56,262	0.03%	33,692	0.01%
Himachal	6,19,300	0.30%	3,86,642	0.24%

7.10.3 District Economy

Sirmaur is mainly an agrarian district of Himachal Pradesh, except for block like Paonta Sahib, Kala Amb and Nahan. The region is known for Potatoes, ginger farming and high quality peaches. The district economy has witnessed a compounded annual growth of 7.30 percent[547] during 2001-06, in comparison to the state average of 8.41 percent[548] during the same period. The secondary sector constitutes to over 41 percent of the district economy, indicating an active manufacturing sector. While the contribution of secondary and tertiary sectors is highest among sub-sectors in the district, dependency on agriculture is high in terms of number of people engaged. The per capita income of Sirmaur has registered a cumulative growth of 5.77 percent[549] during 2000-06, compared to the state's compounded annual growth rate of 6.87 percent during the same period.[550]

Sub-Sector wise GDDP growth trends of Sirmaur are presented in the graph below.



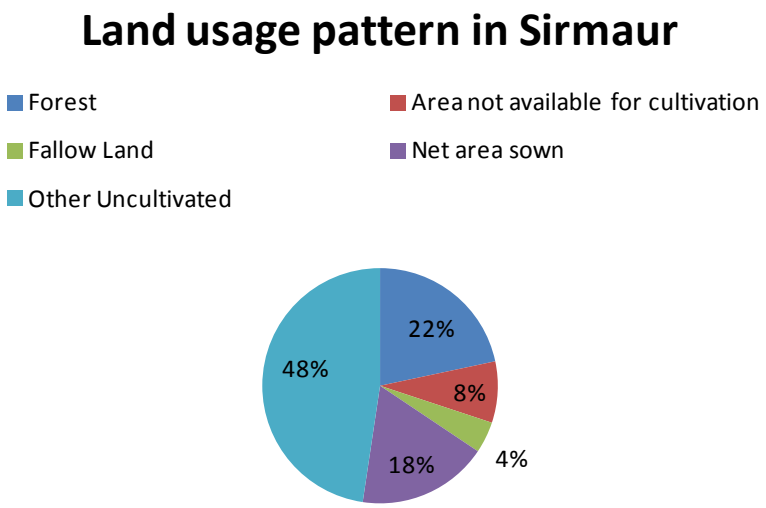
[547] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[548] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[549] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[550] http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.

7.10.3.1 Agriculture and allied sectors

Sirmaur is known as the "Peach bowl of India" as the climate here is conducive for the production of peach. The district has 33.08 percent[551] of total geographical area under cultivation. According to the available data of 2005-06 from planning commission, primary sector contributes to around 28% towards district GDP. The main agricultural crops are Wheat, Corn, Rice, Sugarcane, potato and ginger[552]. Fruits such as Apple, Peach and Mango are also grown in the district.

The total cultivated area in Sirmaur is approximately 74,347 hectares[553] and out of this 35.3 percent is used for Wheat cultivation[554] .Corn is another important crop of the district and 28.6 percent of the total cultivated area falls under this crop[555]. The district is dependent on various sources of irrigation like canals, wells and ground water from tube wells[556]. Around 14,180 ha [557] of land is irrigated through these alternative channels. There is low mechanization in terms of tools deployed for agriculture due to uneven terrains and hence traditional methods such as wooden and Iron ploughs, Bullock carts are used for farming.

District land usage pattern is presented in the chart[558].



The district has a high forest cover of 22 percent in comparison to state average of 19 percent[559], mainly due to low industrialization.

As per the available data from district statistical handbook, the total area under fruit cultivation in 2010-11 was 14343 hectares. Out of this approximately 22 percent of land was under Apple cultivation producing 567 metric tons of apples[560].

Pisiculture is an important allied activity in Sirmaur district with an approximate production of 744 metric tons of fish in valued at 3.72 crores in 2010-11.This is almost 10 percent of the total Himachal's produce[561]. There are 739 licensed fishermen in the district as compared to the 12,343 in the state.[562]

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[551] *http://hpsirmaur.nic.in/fact1.htm*
[552] *Sirmaur statistical handbook*
[553] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[554] *Sirmaur district statistical handbook*
[555] *Sirmaur statistical handbook*
[556] *Sirmaur Statistical handbook*
[557] *Sirmaur statistical handbook*
[558] *Sirmaur statistical handbook*
[559] *Sirmaur statistical handbook*
[560] *Sirmaur statistical handbook*

Sericulture has been identified as a thrust area for Himachal Pradesh in order to create more job opportunities among the rural unemployed youth. The department is running 8 Sericulture farms in the district Sirmaur. On an average 500 farmers are being benefitted in these farms, which are producing approximately 17 quintals of dry cocoon every year.[563]

There are 120 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of 739.21 lakhs.[564]

7.10.3.2 Industry

There are two industrial areas in Sirmaur namely Gondpur (Paonta Sahib) and Kala Amb. Among the major industries in these areas are Cement, Medicines, Mushroom, Chemicals, Calcium carbonates, LPG cylinders, Brewery, Mineral water, Cotton yarn and Corrugated paper. Most of the Micro and small scale units are manufacturing lime stone powder . This is due to the large presence of limestone in the district. These units together produced approximately 10.5 lac tons[565] in the year 2010-11.This is almost 10 percent of the total limestone production in Himachal Pradesh[566]. The other important products are Bone China Crockery, Cement, Steel and Wooden furniture and Fruit & vegetable processing units.

The main medium and large scale units in the district are Malwa cotton spinning mills, Ranbaxy labs, Liberty shoes, Mankind pharma, Taral metals ltd.,Pashupati spinning and weaving mills, Mount everst mineral water, Cement corporation of India and Superior carbonates etc.

The known small scale industry players in the district are Knight queen industries which manufactures mosquito repellent coils, Mahaan Diaries and Mahaan foods which manufactures Ghee and pickle, Regency carbide which manufactures Calcium carbonate and Himachal filaments which manufactures Monofilament yarns.

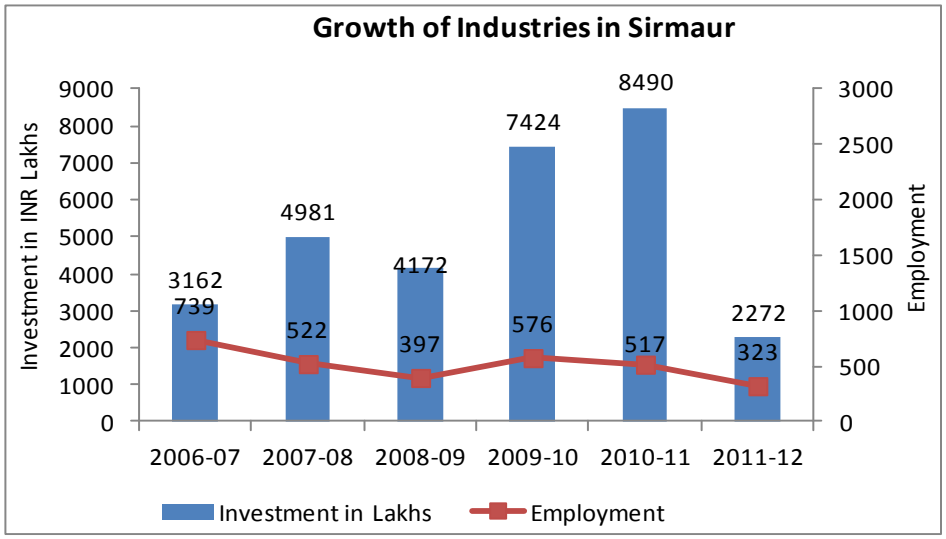
Forests play an important role in the economy of the district and major forest produce are in the form of timber, firewood,katcha,resin, fodder and herbs.

As per 2011 data, 64 small scale factories were registered in the district with an investment of 94 crores, employing around 958 people on a daily basis.

Sirmaur share in terms of total number of registered units was one of the lowest in Himachal Pradesh with7.4 percent in 2011[567].Between 2006-07 and 2010-11, the total investments in the district were 305 crores which generated an incremental employment of 3074

Employment trends in MSME segments over the recent years are presented in the chart.[568]

[561] *Sirmaur statistical handbook*
[562] *Sirmaur statistical handbook*
[563] *http://hpsirmaur.nic.in/Deptt.htm*
[564] *Himachal Statistical abstract 2011*
[565] *Department of Mines and Geology*
[566] *Department of Mines and Geology*
[567] *Statistical abstract of Himachal Pradesh*
[568] *Brief Industrial profile of Sirmaur District, MSME*



Based on discussions with District Industries Center, following potential MSME thrust areas are identified in Sirmaur district.

Existing	Thrust areas Identified for Promotion
(I) Chemical and chemical based (ii) Leather based (iii) Engineering units (iv) Electrical machinery and transport equipment	Auto repair, Mobile Repair, Waste Management, Cement plants, Fruit processing, Ginger powder, Milk products, Silk cocoon processing and silk reeling, Calcite powder, Leather shoes, Hosiery products

Source: Brief Industrial profile of Sirmaur district, MSME

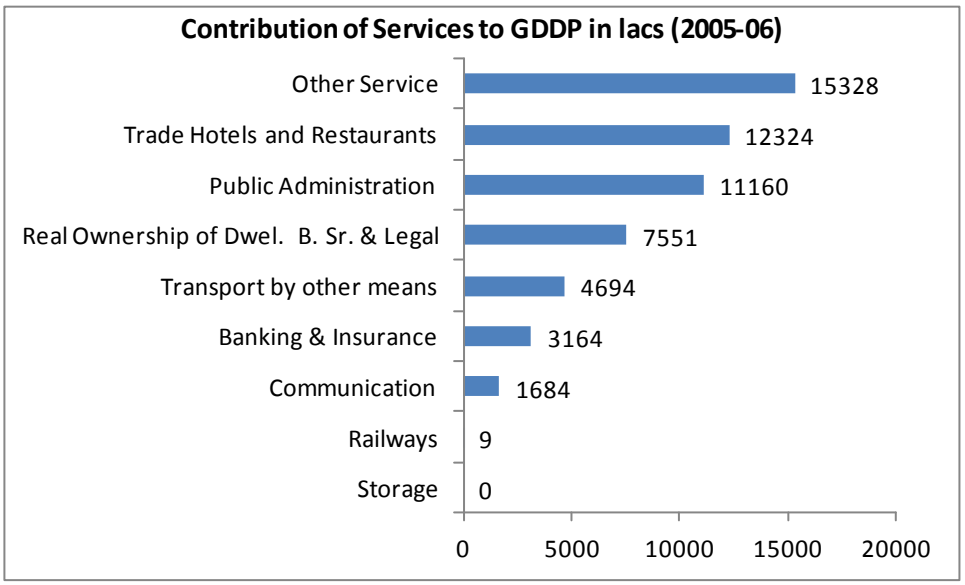
7.10.3.3 Services Sector

The services sector contributed to 31 percent[569] of Sirmaur GDDP during 2006-07.

Services sector in the district is dominated by trade, hotel and restaurants[570].Trade activity includes wholesale and retail trade in all commodities whether produced domestically, imported or exported. It also includes the activities of purchase and selling.

Tourism is another important sector that contributes significantly towards the tertiary sector in Sirmaur. Places of tourist importance in the district include Jaganath temple, Shivalik fossil park, Trilokpur temple and Dhaula Kuan. The most attractive tourist destination is national wetland Renuka, which attracts a large number of tourists from all around India and abroad. Composition of services economy in the district is presented in the chart below[571].

[569] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[570] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[571] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*



Sirmaur has a mix of old and new hotels like Sirmaur retreat, The Renuka and Regency hotel. The number of restaurants and hotels in Sirmaur has gone up from a mere 52 to 156[572] showing a compounded annual growth rate of 24.57 percent during 2006-2011.Out of these, there are 65 registered Hotels and guest houses with a bed capacity of 1,699.[573]These restaurants and hotels employ nearly 320 people.[574]

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was approximately 1.75 percent as per 2005-06 estimates. Number of bank branches in the district has grown at 6.36 percent CAGR between 2009 and 2011[575] with respect to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately 1,043 crores was given in the district by the commercial and State banks during 2010-11[576] .During the same time the deposits in these banks were approximately 1,390 crores.

The growth in the number of banks from 2009-2011 in the district vis a vis the state are highlighted below.

	2009	2010	2011
Sirmaur	61	62	62
Commercial banks/lacs population	12	12	12
Himachal Pradesh	980	1053	1105
Commercial banks/lacs population	16	17	18

Source: Sirmaur and Himachal Pradesh district statistical handbook, Himachal Socio-economic profile

Healthcare coverage in terms of population served, stands at 877 persons per bed, is slightly higher than Himachal Pradesh which is 706 people per bed. District has 36 PHCs and 3 CHCs[577]

[572] *Sirmaur District statistical handbook*
[573] *Directorate of tourism,Himachal Pradesh*
[574] *Sirmaur District statistical handbook*
[575] *Himachal statistical abstract*
[576] *http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325*
[577] *Himachal statistical handbook*

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Sirmaur 2011-12[578]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**5**	**-**
Dispensaries	**3**	**-**
CHC/RH	**3**	**-**
PHC's	**36**	**-**
Total	**37**	**604**

Although there are no service enterprises in the district of Sirmaur at present, there is a good scope of setting up of service enterprises here. Based on the interaction with local people, DIC and technical institutes present in the district, following observations were made for the services industry[579]:

Thrust areas Identified for Promotion
(i) Computer repair (ii) Mobile repair (iii) Auto repair (iv) Cyber Café (v) Beauty parlour (vi) Waste management (vii) Repair of electrical appliances

7.10.4 Workforce Distribution in the district

7.10.4.1 Current Employment Scenario in Sirmaur

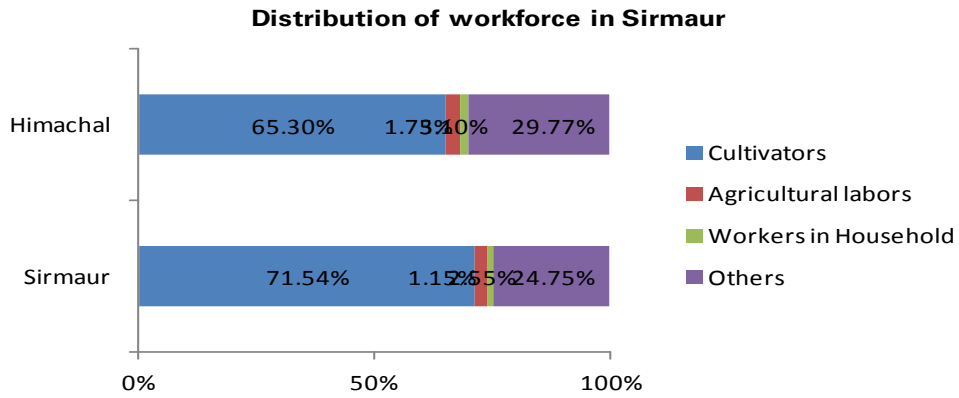
According to census 2001, the total worker population in Sirmaur was 2.25 lakhs, out of which 89 thousand were women and 1.36 lakhs were men. Of the total women worker population, only 26.7 percent females were main workers, 14.6percent were marginal workers and 58.6 percent were non-workers. Similarly, out of total men workers, 48.8 percent were main workers, 7.5 percent were marginal workers and 43.6 percent were non-workers. This clearly indicates the wide difference of participation rate between women and men in the district of Sirmaur.

Region	Total workers	Main workers	Marginal workers	Non-workers
Sirmaur	49.25%	38.36%	10.90%	50.75%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (49.25 percent) is marginally higher than the state average of 49.24 percent. Female participation rates are significantly low at 41.35 percent as compared to 43.67 percent for Himachal Pradesh. This has slightly improved since 1991when it was only 36.5 percent[580].

[578] *Himachal Statistical handbook*
[579] *Brief Industrial profile of Sirmaur District, MSME*
[580] *Census 2001 and 1991*



Paonta Sahib has emerged as the most active industrial town of Sirmaur district, with the setting up of multiple medium and small scale industries. These industries have attracted skilled / semi skilled and unskilled workers migration from Nahan to Paonta Sahib town. As per the available report from department of town and country planning, migration is picking up because of establishment of more institutions like government colleges, ITI, English medium schools, good facilities of hospitals, private clinics and shopping centers.

7.10.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Sirmaur	602,648	316,993	163,026	152,755
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG analysis

7.10.5.1 Incremental Supply of labour force in the district

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. Sirmaur is expected to witness a high growth in supply of 56.5 thousand incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	Skilled	Semi skilled	Minimal skilled	Skilled	Semi skilled	Minimal skilled

Sirmaur	1,922	2,275	5,011	1,942	2,300	5,064
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

7.10.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Sirmaur 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 Sirmaur.

Sector wise skill level requirements during 2012-22

	2012-17			2017-22		
Sub Sectors	**Skilled**	**Semi-skilled**	**Minimal skilled**	**Skilled**	**Semi-skilled**	**Minimal skilled**
Agriculture & Allied Activities	-	-	(2,051)	-	-	(2,024)
Pharma & Medicinal Products	83	333	417	106	423	528
Food Processing	13	52	76	17	65	95
Chemical & Chemical Products	64	254	318	70	282	352
Textiles	25	102	127	37	149	186
Construction	878	1,757	14,932	1,008	2,015	17,129
Healthcare	320	1,282	-	314	1,256	-
Transportations and Logistics	29	461	548	31	494	588
Communication	247	740	-	247	742	-
Banking and Financial Services	208	624	-	224	672	-
Education and Training	43	293	-	7	50	-
Total	1951	6010	14611	2103	6274	17105

Source: KPMG Analysis

* Please note: Only the key industries have been highlighted individually in the section. Hence, the total may not add up.

7.10.6 Human Resource Development in the District

7.10.6.1 Current State of Workforce Development

Largely a tourist destination, Sirmaur is also home to a number of institutes of higher education. Himalayan institute of Pharmacy, IITT college of Engineering, Himalayan college of Dental science are amongst the prominent institutions in the district. Sirmaur matches up with state's average in terms of density of colleges per thousand populations.

Comparison of higher education infrastructure in Sirmaur with Himachal is presented in the table

Category of College	Himachal	Sirmaur
Arts, Science and Commerce	101	7
Engineering/Technology/Architecture	20	3
Medical (Allopathic/Dentistry/Homeopathy)	7	1
Nursing	12	1
Pharmacy	14	2
Management/Business Management	39	2
Education/Teacher training	84	4
Law	8	2
Others (including Teacher training institutions, Polytechnics etc)	105	12
Total	409	33
Density(Colleges per Thousand Population)	0.06	0.06

Source: Department of Higher Education, Shimla

The district has limited penetration of vocational education and for every thousand population there are a little over 2 seats. Therefore, the accessibility is almost 50 percent lower than the state's average. The district has limited private penetration in vocational education with only one polytechnic with an intake of 300 and 6 private ITI's which train approximately 600 students.

It was noted that vocational education is perceived by students as secondary to regular courses like B.A and B.Com. Poor branding of technical courses has led to the closure of COE trade in ITI-Nahan and the training centre of IISD.

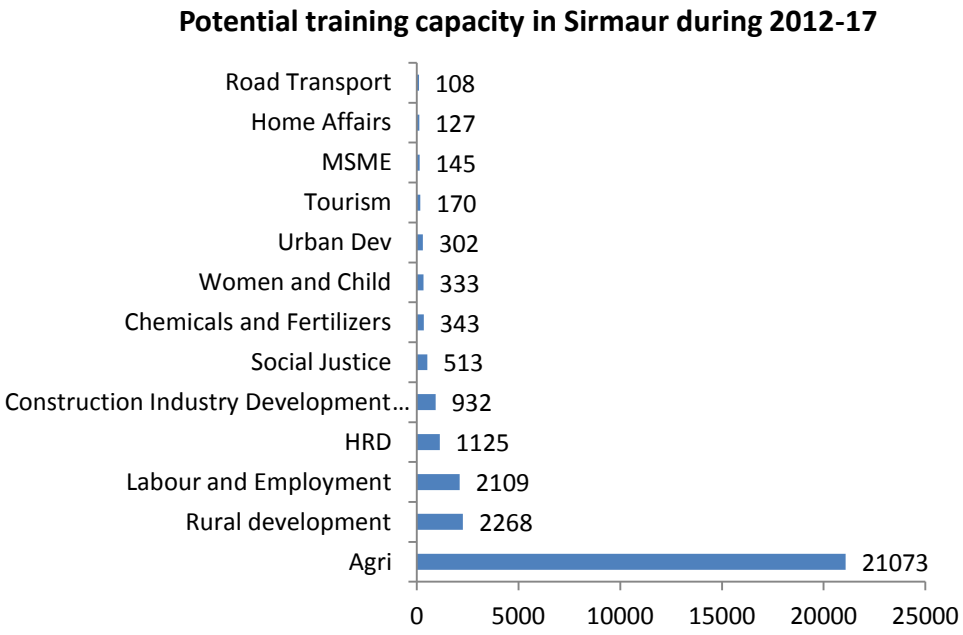
Accessibility of vocational education in Sirmaur is lower than the state average.

District Wise ITI/ITC Infrastructure (2011)[581]								
	Number				Sanctioned Intake			Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total	
Himachal	84	120	204		13,310	10,459	27,364	4
Sirmaur	8	6	14		798	597	1,395	2.53

[581] http://www.techeduhp.com/itc.html

7.10.6.2 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 30 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture, Labour & employment and Rural development has significant training mandates in the district.



7.10.6.3 Students Interaction outcomes-Youth Aspirations

Students in Sirmaur showed higher preference towards government job over private owing to higher job security and salary. Students were also open to migration to the other districts or states with an exception of few girl students who wanted to work from within the district. Most students felt that Polytechnics students are given higher preference than ITI students by the industry and the same is reflected in the salaries offered. Students of the districts appeared to have high awareness in terms of career prospects. Most youth were seen to prefer salaried job over self employment.

7.10.6.4 Skill Mapping and developmental concerns

Sirmaur is an industrialized district of Himachal Pradesh. The secondary sector contributes to over 41% of the total district GDP. There exists a trade and sector level skill shortages in some industries. Trade level skill shortages were noticed across skills like Welders, Fitters. Sector level skill deficits are noticed in the areas like Boiler attendants, Pharmacists and across all skills required in the Leather industry (especially shoes manufacturing). The industries in Sirmaur loathe hiring native labour due to high attrition, lack of professional conduct and more preference towards administrative jobs.

Based on the interactions with the local industries, government departments, local population and technical institutes following key observations were derived across certain industries.

Industry	Skill study outcomes
Air conditioner manufacturing	**Key skill requirements**: Fitter, Welder, Turner, Electrician, Air conditioner operator (RAC) **Skill deficits:** RAC **Current status**: The industry currently faces a huge problem with the employee attrition. As per the state government laws, 70% native work force needs to be maintained in the industries, however the local people do not prefer to work in the industry. The workers are perceived to be completely unskilled and require extensive on the job training. In most cases, the workers do not come to work after the job is confirmed which is a huge concern for such a seasonal industry.
Craft, Writing and Printed paper manufacturing	**Key skill requirements:** Fitter, Electrician, Turner, Boiler Attendant, Welder **Skill deficits:** Boiler Attendant **Current status:** Most hiring is done from the ITIs. Unskilled labour (5^{th} or 8^{th} pass) is also hired and trained on the job. For the most part, the industry requirement is met with the current output from ITI. While the industry prefers to hire ITI certificate holders with the basic knowledge of machinery operations; On the job training is essential as the machinery used at the institutes fails to keep pace with the industry needs.
Pharmaceutical	**Key skill requirements:** Pharmacist, Electrician, Fitter, Mechanical Technician, Mixing and blending machine setters, Extruding, Forming, Pressing, Compacting machine setters and tenders who tend tanks and kettles for mixing solutions and compounds to make up creams, Ointments, Liquid medications and powders and granulations **Skill deficits:** Pharmacist **Current status:** At present, there is no course in the ITIs at Himachal to cater to the needs of the pharmaceutical industry. The industry needs students from engineering trades including fitter/electrician to also have basic knowledge about basic pharmacy concepts of micro-biology, hygiene and cleanliness requirements, bacterial contamination risks and pesticide management. Currently 12^{th} pass or ITI diploma holders are hired and provided extensive training on the job with lower level critical operations, before being moved to the high risk jobs**.**
Textile	**Key skill requirements:** Section/Direct Warper, Sizer, Creel boy, Weaver, Fitter, Knotter, Weft boy, Roll doffer, Mender, Tailor, Thiess operator, Hydro operator, Sharing Stentor operator **Skill deficits:** Sizer, Winder **Current status:** Majority of labour is unskilled (5^{th} pass) with complete training being done internally. The only textile related trades available at the ITIs are cutting and sewing. It is not possible to set up training machinery for such skills at the ITIs due to their high costs and fast changing pace. The industry is open to the prospect of strong industry institute interaction through training of instructors and students (apprentices) on the industry machinery.
Leather	**Key skill requirements:** Tees Lasting, Sole Supporting, Sheet and Side Lasting, Dunlop,

	Buffing & Wiping, Baffling, Stuffing, Cement Cleaning, Heel Lasting **Skill deficits:** All **Current status:** There are no trades in ITI catering to the needs of the shoe industry. Significant gap exist in the industry requirement and availability of skilled labour within state. There is a clear need for courses in ITI pertaining to the manufacturing of leather and leather based products. At present, unskilled labour (8th pass) is being hired and trained on the job.

8.1 District specific recommendations

Sirmaur, district situated at the border of Himachal Pradesh and adjoining Haryana and Uttaranchal has emerged as the second most industrialized district after Solan. The district with significant commercial activity has significant opportunities for skill development mainly across the manufacturing and tourism sector. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- High employment potential in manufacturing sector-**Pharmaceuticals, Cotton yarn, Breweries, Cement** and industry related to the manufacturing of **Calcium Carbonate & Calcite powder**
- **Transport and Logistics** will witness high demand of manpower in allied activities, given the strategic positioning of the district
- The growth in industrial development in Solan has spurred indirect employment demand in certain sectors like **security services and facilities management**
- Sustainable growth of industrial clusters in the district would require multi faced skill development for the workers including ***sales and marketing***
- To create more job opportunities among the rural unemployed youth, the department is running **8 Sericulture farms**
- Service sector largely dominated by **tourism,** as some of the well known tourist's sites are located in the district**.**
- Poor branding of the ITI's and the ITC in the district.
- Low motivation of the existing teachers to teach in the government institutes.

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

Stakeholder	Action Points for Stakeholders

NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors
	  ○ Pharmaceuticals
	  ○ Textiles
	  ○ Fermentation
	  ○ Focus should also be to train skilled manpower in new ways of Welding such as MIG, TIG and Arc welding. Current ITI's have a main focus on Gas welding and a limited focus on MIG/TIG
	• Forging public private partnerships with leading private sector firms in Sirmaur to create an inclusive ecosystem for skill development.
	• Set up camps in schools to bring a paradigm shift in perception of youth for vocational training. This could be materialized by creating a scholarship fund for high achieving students interested in taking up skill related courses.

District Administration	• Ensure women participation in skill development, as 59 percent of all the women in the district are Non-workers. • Centre of Excellence can be set up in the ITI as it is a hub of Pharmaceutical industry. • Create an enabling environment such as an option of taking a loan for the students who wish to pursue vocational education through public or private mode. • Make effective use of Public relation officer's to promote campaigning for admitting school dropouts in MES courses. The current target oriented approach is benefitting only a certain strata of the beneficiaries (people looking to up skill themselves) • Creating an infrastructure for Skill development of teachers (such as a tool room) within the district and make trainings mandatory for all the trainers. Optionally, the same could be started at the State level. • Focus on training in agricultural products and processing especially in Mushroom as the department has significant training mandates.
Industry	• Industry may undertake vocational training as a part of their CSR activity. • Jobs required to be performed in an industry should be assessed on National occupation standards which should remain same across the country. This will allow a student to work in any part of the country. • Industry bodies in the district can offer support and facilitation services through policy advocacy, Industry intervention and International collaboration so that the youth can acquire skills to meaningfully participate in and contribute in the economy. • Support the institutional management committee under the PPP scheme to make it more effective and ensure adequate placements and effective training. • Follow the two pronged approach to start training centers within their own campus and training on specific sector skills and then recruiting the same candidates.
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district. Curriculum should be designed and aligned in such a way that the student gets an option for placement. Experts in form of guest lecturers from the industry could be called to deliver modules. • Private players may develop curriculum for training students on soft skills. Further, they may forge partnerships with existing government ITI's and focus of soft skill training to students as well as teachers. This would open another revenue stream for these players.

7.11 Skill Gap Study of District of Solan

7.11.1 Administrative profile

The Solan district was carved out on 1 September 1972. It is surrounded by Shimla district in the North and Ropar district of Punjab in the South, by district Sirmaur in the East and by district Bilaspur in the West.[582]

The area of district is 1,936 sq km, which accounts for 3.4 percent of the total share of state area[583].

Administratively, the district has been divided into four sub divisions (Solan, Nalagarh, Arki and Kandaghat); six tehsils (Solan, Kasauli, Nalagarh, Arki, Baddi and Kandaghat) and five blocks (Arki, Kandaghat, Nalagarh, Dharampur and Solan)[584]

7.11.2 Social Profile

7.11.2.1 Demographics

As per Census 2011 estimates, Solan district has a population of around 5.76 lakhs[585], contributing to 8.4 percent of the total state population. The district population has grown at a decadal growth rate of 15.93 percent in the period of 2001-11.

The population density of 298 people per sq. km in the district is much higher than the state average density of 123 per sq. km. The high concentration of population can be attributed to the fact that the district is an important industrial town and has significant employment opportunities.

The district has witnessed marginal increase in the female composition of population during 2001-11. The adult gender ratio of Solan district has increased from 852 females per 1000 males[586] in 2001, to 884 females per 1000 males[587] in 2011. However, there has been a decrease in the child (0-6 age group) gender ratio from 900 females per 1000 males[588] in 2001 to 899 females per 1000 males[589] in the same period. The reserved caste population in Solan at 24.3 percent[590] is comparable to state average of 24.72 percent for Himachal Pradesh.

7.11.2.2 Literacy

The district has a slightly lower literacy rate of 83.68 percent[591], as compared to the state's average of 83.78 percent[592] . Further, the gender disparity in education attainment levels is also prominent with a low female literacy rate of 76.97 percent when compared to the male literacy rate of 89.56 percent[593]. The higher rate of literacy in the district can be accounted to economic growth and political importance of the district, which has led to significant private and public participation in the school segment.

[582] *http://hpsolan.nic.in/history.html*
[583] *Himachal Statistical handbook*
[584] *http://hpsolan.nic.in/fact.html*
[585] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[586] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[587] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[588] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[589] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[590] *http://www.censusindia.gov.in/*
[591] *http://censusindia.gov.in/2011-prov-results/prov_data_products_himachal.html*
[592] *http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html*
[593] *http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf*

Solan also has many reputed boarding schools such as Lawrence, Pinegrove and Army school, which are amongst the top boarding schools of India. There are 1073[594] schools in the district, out of which more than 40 percent are located in the Nalagarh and Kunihar alone. As per 2011 estimates, the drop-out percentage of children in both primary and upper primary level is higher than the state average.

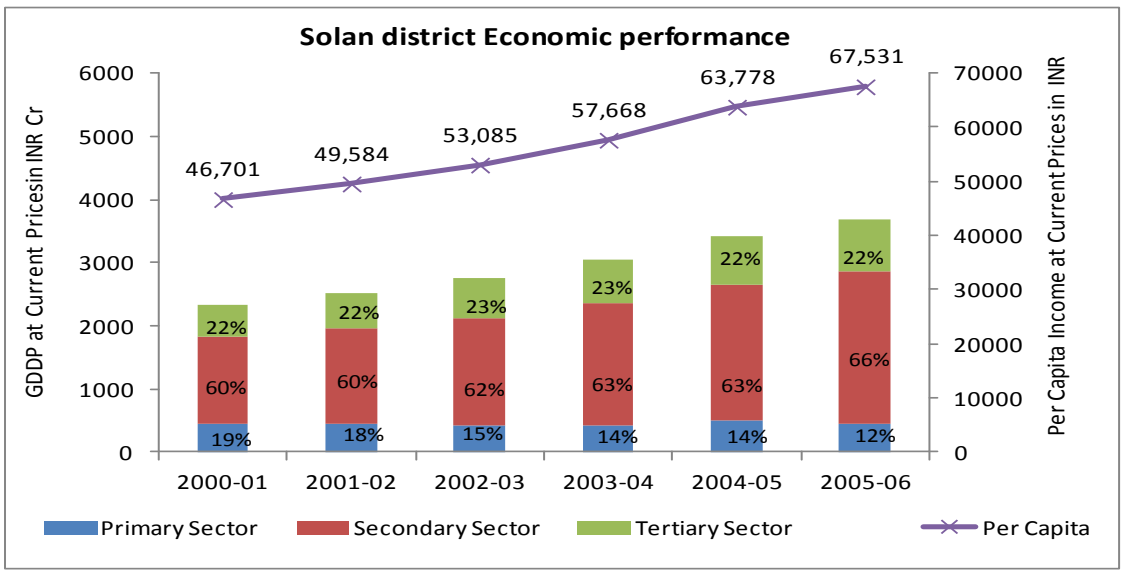
Comparison of district school education statistics with overall state details is presented in the table

Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Solan	57,905	0.55%	33,276	0.49%
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

7.11.3 District Economy

Solan is a key district and one of the fastest growing town's of Himachal Pradesh. The district is also known as the lifeline of the state as all the raw products, building materials, passengers, goods etc for the state come through National highway 22 which passes through the Solan town[595].Secondary sector constitutes to over 66% percent of district economy, indicating an active manufacturing sector. In terms of absolute contribution, the district accounts for 25.3 percent of the total state secondary sector income. Being an industrial town, per capita income of Solan is considerably higher than the state average. Further, per capita Income of Solan has registered a cumulative growth of 6.34 percent[596] during 2000-06 compared to the state compounded annual growth rate of 6.87 percent during the same period.[597]

Sub-Sector wise GDDP growth trends of Solan are presented in the graph below.



[594] Solan statistical handbook 2011
[595] http://himachal.nic.in/tcp/DPSolan.pdf
[596] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[597] http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf

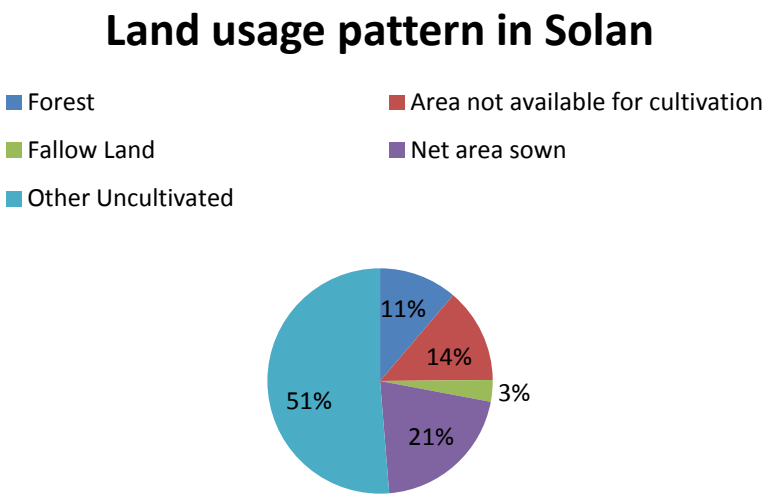
7.11.3.1 Agriculture and allied sectors

Solan is known as the "Mushroom city of India" because of the extensive mushroom farming in the region. Solan is also called the "City of Red Gold" in reference to the bulk production of tomatoes in the area.

Solan has 33.70 percent[598] of its total geographical area under cultivation. According to the available data of 2005-06 from planning commission Primary sector contributes to around 12% towards district GDP. The main agricultural crops are Maize, Barley, Paddy, Pulses, Tomato, Capsicum and Chilly. Fruits such as Apple, Nuts and dry fruits along with other sub-tropical fruits are also grown in the district.

The total cultivated area in Solan is around 64000 hectares[599] and out of this 39 percent is used for Wheat cultivation[600] .Maize is another important crop of the district and 37 percent of the total cultivated area falls under this crop. The district is dependent various sources of irrigation like canals, ponds and ground water from tube-wells. As per available data from the district report, around 12,615 ha [601] of land is irrigated through these alternative channels. With 69 percent of net sown area in the district exposed for multiple cropping[602], there is a need to promote minor irrigation techniques to sustain agricultural growth in Solan.

District land usage pattern is presented in the chart[603].



Apple farming is an important activity in the district. In2010-11 approximately 88.4 hectare of land was under Apple cultivation producing 48.5 metric tonnes of apple.

The district has a low forest cover of 11 percent in comparison to the state average of 19 percent. The forest cover is rapidly declining in the region on account of fast growing industrial blocks in Nalagarh, Solan and Kandaghat.

Pisiculture is an allied activity in Solan district with an approximate production of 366 metric tons of fish in 2011-12.This is approximately 5 percent of the total Himachal's produce[604].There are 285 licensed fisherman in the district when compared to 12343 in the state.[605]

[598] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[599] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[600] *Solan district statistical handbook*
[601] *Solan district statistical handbook*
[602] *KPMG analysis (calculated as Area available for multiple cropping divided by Net sown area)*
[603] *Solan district statistical handbook*
[604] *Himachal Statistical abstract 2011*

There are 157 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of 847 lakhs.[606]

7.11.3.2 Industry

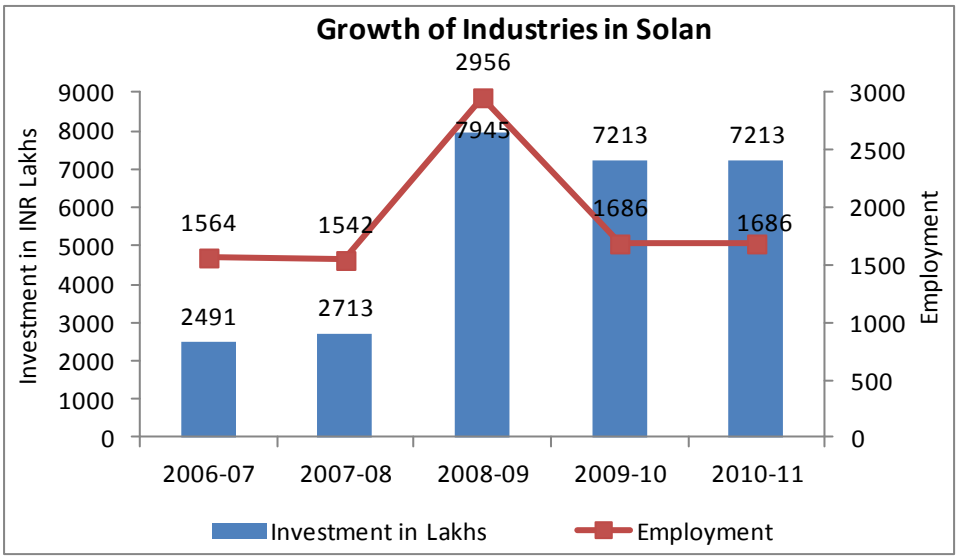
There are five industrial areas in Solan namely Solan, Parwanoo, Baddi, Barotiwala, and Nalagarh.However, the main concentration of Industries is in the Baddi block which is the part of an industrial corridor stretching from Barotiwala to Nalagarh. The area is emerging as the pharmaceutical industry capital of India. The major investors in this belt are Alkem labs ltd., Glenmark Pharmaceuticals, Unichem labs, Dr. Reddy's ltd., Indoco remedies and Bal Pharma

The district has a presence of minerals like limestone whose production in 2010-11 was 7910 tonnes,when compared to 113 lac ton for Himachal Pradesh[607].Minor minerals available in district includeSand, Bajri and boulders. Soft ferrite components are the major exportable item from the district.Forests also play a limited role in the economy of the district and major forest produce that comes from the forests are in the form of timber, firewood,katha,resin, fodder and herbs.

Ambuja cement, Cosmo ferrite, Purewal and associates, Jaypee Himachal cement and Mohan Meakin Ltd. brewery are prominent large scale industries operating in the district. However, there are few such units in the district and hence the role of ancillirisation is limited. As per 2011 data, 219 small scale factories were registered in the district with an investment of 404 crores, employing around 3775 people on a daily basis.

Solan's share in terms of number of registered units was highest in Himachal Pradesh with25.5 percent in 2011.Between 2006-07 and 2010-11, Industries in the district have grown at a CAGR of 23.69% adding an additional employment of over 9400 during the period.

Employment trends in MSME segments over the recent years are presented in the chart.[608]



Based on discussions with District Industries Center, following potential MSME thrust areas were identified in Solan district.

[605] *District statistical handbook*
[606] *Himachal Statistical abstract 2011*
[607] *Department of Mines and Geology*
[608] *Brief Industrial profile of Solan District, MSME*

Existing	Thrust areas Identified for Promotion
(i) Wood/Wooden based furniture (ii) Paper and paper products (iii) Metal based (steel fabrication), (iv) Engineering units (v) Repairing and servicing (vi) Rubber, plastic and petro based (vii) Woolen, silk and artificial thread based clothes	Assembling units, Auto repair, Jute based unit, Mobile repair

Source: Brief Industrial profile of Solan district, MSME

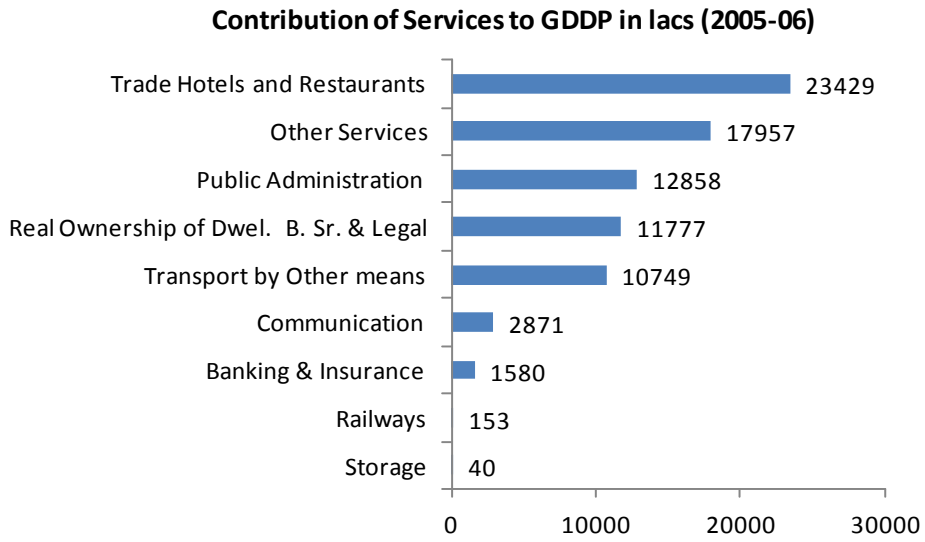
7.11.3.3 Services Sector

Solan district is a key commercial hub which has given way to an active tertiary sector. The sector contributed to 22 percent[609] of Solan GDDP during 2006-07.

Services sector in the district, dominated by trade, hotel and restaurants and public administration[610].Trade activity includes wholesale and retail trade in all commodities whether produced domestically, imported or exported. It also includes the activities of purchase and selling.

Tourism is another important sector that contributes significantly towards the tertiary sector in Solan. Places of tourist importance in the district include Barog, Kasauli and Chail.

Composition of services economy in the district is presented in the table below[611].



Solan has a mix of old and new hotels and resorts like Baikunth resorts, Birds view resorts, Hemkunth resorts and Kasauli tourist Inn, camping sites like Barog camping site and Pine drive resorts. The number of restaurants and hotels in Solan has gone up from a mere 33 to 745[612] at a compounded annual growth rate of 36.57%from 2001-2011.Out of these there are 193 registered Hotels and guest houses, with a bed capacity of 7309.[613]The restaurants and hotels together employ nearly 550 people.[614]

[609] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[610] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[611] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[612] *Solan district statistical handbook*
[613] *Directorate of tourism, Himachal Pradesh*
[614] *Solan district statistical handbook*

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was close to 2 percent as per 2005-06 estimates[615]. Number of bank branches in the district has grown at 12.88 percent CAGR between 2009 and 2011[616] with respect to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately 2700 crores was given in the district by the commercial and State banks during 2010-11[617] .During the same time the deposits in these banks were approximately 3300 crores.

The growth in the number of banks from 2009-2011 in the district Vis a Vis the state are highlighted below.

	2009	2010	2011
Solan	124	141	158
Commercial banks/lac population	26	27	27
Himachal Pradesh	980	1053	1105
Commercial banks/lac population	16	17	18

Source: Solan and Himachal Pradesh district statistical handbook, Himachal Socio-economic profile

Government has initiated several measures to promote IT/ITES segment in the district. Approximately 106 acres of land has been earmarked for an IT park cum city between Solan and Shimla very close to the National highway 22.[618]

Healthcare coverage in terms of population served, stands at 746 persons per bed, is slightly higher than Himachal Pradesh which is 706 people per bed. District has 33 PHCs and 5 CHCs[619]

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Solan 2011-12[620]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**5**	**-**
Dispensaries	**5**	**-**
CHC/RH	**5**	**-**
PHC's	**33**	**-**
Total	**48**	**772**

[615] *Solan district statistical handbook*
[616] *Himachal statistical abstract*
[617] *http://www.rbi.org.in/scripts/PublicationsView.aspx?Id=14325*
[618] *http://himachaldit.gov.in/page/Proposed-IT-Parks.aspx*
[619] *Himachal statistical handbook*
[620] *Himachal Statistical handbook*

Based on the interaction with the local people, DIC and technical institutes present in the state, following thrust areas were identified for the services industry:

Thrust areas Identified for Promotion
(i) General Machinery repair (ii) Video and photography (iii) Auto repair and Beauty parlours

7.11.4 Workforce Distribution in the district

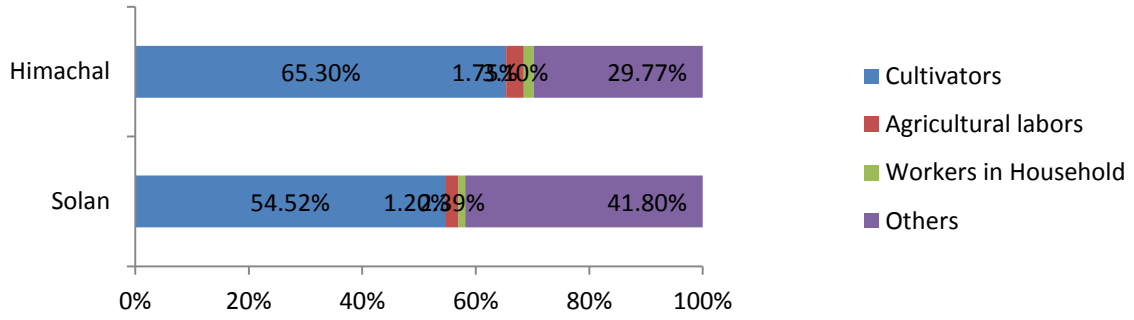
7.11.4.1 Current Employment Scenario in Solan

According to the Census 2001 the total worker population in Solan was 2.63 lakhs, out of which 98 thousand were women and 1.65 lakhs were men. Of the total women worker population, only 15.2 percent females were main workers, 27.4percent were marginal workers and 57.3 percent were non-workers. Similarly, out of total men workers, 50.7percent were main workers, 10.3 percent were marginal workers and 38.8 percent were non-workers[621]. This clearly indicates the wide difference of participation between women and men in the economy.

Region	Total workers	Main workers	Marginal workers	Non-workers
Solan	52.63%	34.42%	18.21%	47.37%
Himachal	49.24%	32.31%	16.92%	50.76%

Work Participation Rate (WPR) in the district (52.39 percent) is marginally higher than the state average of 49.24 percent. As per the Census 2001 data, the female worker participation rate is around 42.63 percent. This has significantly improved since 1991 when it was only 35.06 percent. However, high share of non working population still remains especially in the women category, which needs to be addressed through adequate training for self employment generation

Distribution of Workforce in Solan



Historically, Solan has been a destination for migration from other Himachal districts as well as neighboring states such as Punjab, Haryana and Uttar Pradesh. Majority of this workforce is employed in the Parwanoo, Baddi, Barotiwala and Nalagarh belt which houses maximum number of Industrial units in Himachal Pradesh. The maximum inward migration from within the state is noted to be from the Mandi district. It is also to be noted that Himachal Pradesh labour law states that all industrial units in the state need to maintain a proper record along with reasons for terminating employees, especially for the natives from the state. The industries in Solan are mandated by the Industries department to ensure that 70 percent jobs are given to the people from within the state.

[621] *Gender statistics, Government of Himachal Pradesh*

7.11.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau along with LFPR, WPR from NSSO 68th Round Employment Survey, by apportioning participation rates on a pro-rata basis.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Solan	660,046	347,184	190,143	178,164
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG analysis

7.11.5.1 Incremental Supply of labour force in the district

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. Solan is expected to witness a high growth in supply of 58.4 thousand incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	Skilled	Semi skilled	Minimal skilled	Skilled	Semi skilled	Minimal skilled
Solan	7,008	3,173	558	7,084	3,207	564
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

Source: KPMG analysis

7.11.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Solan 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 Solan.

Sector wise skill level requirements during 2012-22

	2012-17			2017-22		
Sub Sectors	Skilled	Semi-skilled	Minimal skilled	Skilled	Semi-skilled	Minimal skilled
Agriculture & Allied Activities	-	-	(780)	-	-	(770)
Pharma & Medicinal Products	951	3,804	4,754	401	1,604	2,005
Food Processing	96	374	545	121	470	685
Fabricated metal products	28	111	139	26	104	131
Paper & Paper Products	10	38	48	11	43	54
Chemical & Chemical Products	62	248	309	69	274	343
Manufacturing of Engineering Products	35	141	177	39	156	195
Textiles	263	1,050	1,312	385	1,539	1,924
Manufacturing of Electrical Products	18	71	89	20	80	100
Construction	1,746	3,492	29,683	2,003	4,006	34,051
Healthcare	168	673	-	344	1,375	-
Transportations and Logistics	68	1,086	1,293	73	1,165	1,387
Retail	63	63	503	56	56	447
Hospitality	13	20	99	12	18	89
Communication	423	1,270	-	424	1,272	-
Banking and Financial Services	422	1,267	-	455	1,365	-
Education and Training	47	317	-	8	51	-
Total	4426	14074	38232	4461	13641	40716

Source: KPMG Analysis

* Please note: Only the key industries have been highlighted individually in the section. Hence, the total may not add up.

7.11.6 Human Resource Development in the District

7.11.6.1 Current State of Workforce Development

Solan is home to a number of institutes of higher education and has a high penetration of colleges in comparison to state average. Dr.Yashwant Singh Parmar university of agriculture and Horticulture has earned a unique distinction not only in the country but also in whole of Asia to impart training, research and extension education in Horticulture, forestry and other disciplines.

MNDAV dental College and Bhojia Dental College are amongst the other prominent medical institutions in the district. These institutions offer higher education and technical training across a variety of disciplines. Solan has the highest college density among the districts of Himachal Pradesh

Comparison of higher education infrastructure in Solan with Himachal is presented in the table

Category of College	Himachal	Solan
Arts, Science and Commerce	101	4
Engineering/Technology/Architecture	20	2
Medical (Allopath/Dentistry/Homeopathy)	7	1
Nursing	12	2
Pharmacy	14	2
Management/Business Management	39	8
Education/Teacher training	84	9
Law	8	2
Others (including Teacher training institutions, Polytechnics etc)	105	21
Total	409	51
Density(Colleges per Thousand Population)	0.06	0.09

Source: Department of Higher Education, Shimla

The district also accounts for significantly high proportion of vocational education capacity in Himachal Pradesh. Solan has 5 polytechnic institutes and 16 ITI's (both private and government).The district Solan also has two campus of Indian Institute of Skilling and development (IISD) funded by NSDC which upskills approximately 1200 students every year across various trades.Accessibility of vocational education in Solan is therefore clearly better than the state average.

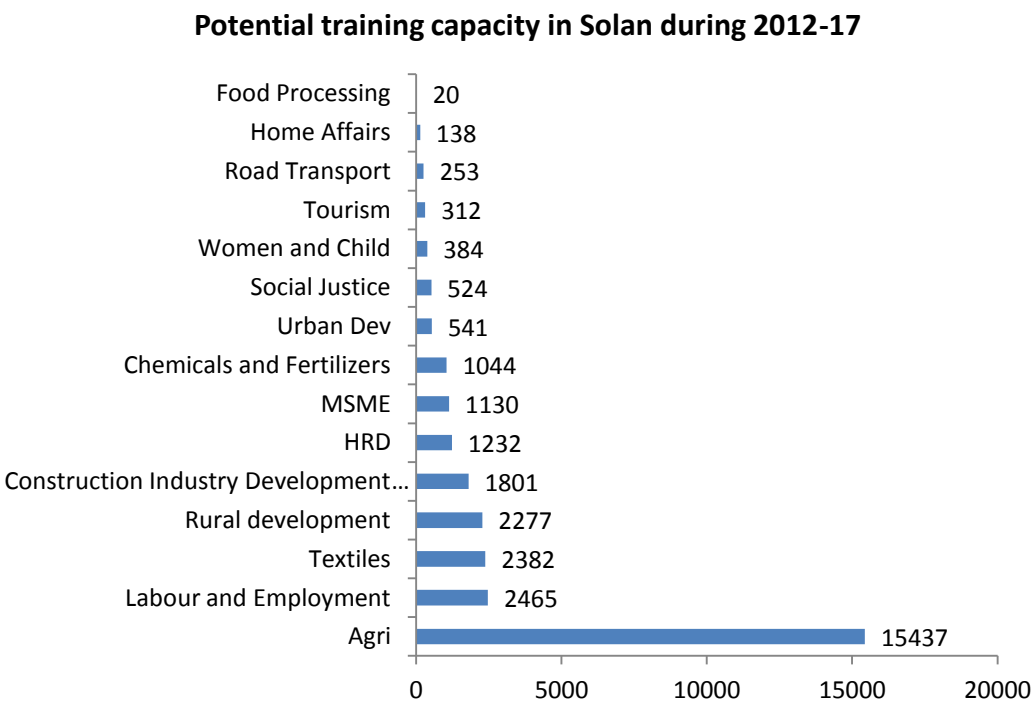
Details of vocational education infrastructure inSolan is presented in the table.

District Wise ITI/ITC Infrastructure (2011)[622]									
	Number				Sanctioned Intake				Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total		
Himachal	84	120	204		13,310	10,459	27,364		4
Solan	6	10	16		1730	1608	3,338		5.79

[622] http://www.techeduhp.com/itc.html

7.11.6.2 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 30 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and Labour and Employment has significant training mandates in the district.



7.11.6.3 Youth Interaction outcomes

Students in the district showed higher preference towards government job over private owing to higher job security and salary. Students were also open to migration to the other districts or states; however they appeared to be confident of finding jobs within the industrial belt of Solan. Most students felt that Polytechnics students are given higher preference than ITI students by the industry and the same is reflected in the salaries offered. Students of the districts appeared to have high awareness in terms of career prospects. Most youth were seen to prefer salaried job over self employment. The aspired salary range for the students is in between INR 6,000 to INR 12,000.

7.11.6.4 Skill Mapping and developmental concerns

Solan is the most industrialized district of Himachal Pradesh. The secondary sector contributes to 66% of the total district GDP and its share is growing at a high rate of 9.6%. There exists a trade and sector level skill shortages in some industries. Trade level skill shortages were noticed across skills like Cutting and tailoring, electricians, fitters, MIG welders, TIG welders and Diesel mechanics. Sector level skill deficits are noticed in the areas like Chemical testers and mixers, Dip dyers, Press operators, Boiler attendant's etc. The industries in Solan loathe hiring native labour due to high attrition, lack of professional conduct and more preference towards administrative jobs.

Based on the interactions with the local industries, government departments, local population and technical institutes following key observations were derived across certain industries.

Industry	Skill study outcomes
Grinding wheels manufacturing	**Key skill requirements**: Fitter, Welder, Turner, Electrician, Press Operator **Skill deficits:** Turner, Press Operator **Current status**: Hiring is done from mainly from polytechnics. Recently, some ITI diploma holders have been hired as apprentices in the surveyed company. While the course for fitter is available at the ITIs the industry faces a gap in skilled labor at specific intervals in the year. For example fitters have a seasonal demand during January, but as students are enrolled in their respective courses during that time, hiring cannot be done. It was therefore recommended that a provision for student training at intervals concurring with the industry demand should be made. No course for press operator currently in ITI's
Electroplating and chemical processing	**Key skill requirements:** Filler, Chemical Tester, Packer, Electrician, Mixer **Skill deficits:** Chemical Tester, Mixer **Current status:** Unskilled labor (10^{th} and 12^{th} pass) is hired through walk-ins for packing and filling operations. On the job training needs to be provided as workers need to work with complex chemical processes. At present, no ITI in Himachal provides courses in the chemical sector. Centers of Excellence in Chemical are present in other states in ITI's such as Ankleshwar and Bilimora in Gujarat
Textiles	**Key skill requirements:** Section/Direct warper, Sizer, Creel boy, Weaver, Fitter, Knotter, weft boy, Roll Doffer, Mender, Tailor, Hydro operator, Sharing stentor operator **Skill deficits:** Winder, Sizer **Current status:** Some hiring is done from tailoring, cutting and sewing courses at the ITIs. The ITI students are semi-skilled and need extensive training on the current machinery used in the industry. At present no courses addressing the particular skill deficit are available.
Leather	**Key skill requirements:** Tailoring, Cutting, Packaging, Finishing, Hand padding, Color making and matching, Leather dip dying, Skiving, Embossing, Buffing, Leather embroidery, Master maker for hardware, Braiding, Edging and Foiling **Skill deficits:** Master makers for hardware's, leather embroidery, foiling, color making and matching and hand padding **Current status:** The students from the cutting and sewing course at ITI were perceived to be uninterested in taking a serious job. Most employees were hired from employment exchanges or referrals. Industrial training is provided to people from stitching centers at local NGOs. Qualification was considered irrelevant when hiring employees.
Telecom	**Key skill requirements:** Fitter, soldering, welder, machinist **Skill deficits:** Machinist

	Current status: The industry in the area has declined due to stiff competition. Minimal hiring has been done in the past 7-8 years. Last significant hiring was done in 2005 from the COE at ITI Solan. No shortage of manpower within the state has been observed**.**
Micro machine tools	**Key skill requirements:** Grinder man, fitter, CNC machinist, Lathe machinist and turner **Skill deficits:** CNC Machinist, Lathe machinist **Current status:** The hiring is done from general technical courses at ITIs, polytechnics and regional engineering colleges. Workers hired are semi-skilled and usually trained for 6 months before permanent employment. ITIs provide a Machinist course but training on the machinery used in the industry is not provided.
Automotive parts manufacturing	**Key skill requirements:** MIG welder, TIG welders, Electrician, Fitter **Skill deficits:** MIG and TIG welder **Current status:** The industry mostly hires experienced workers from Gurgaon and Ludhiana. The welding course at ITIs mostly focuses on arc welding. The course includes only one class on MIG welding and the workers need extensive training on the job.
Plastic tubes manufacturing	**Key skill requirements:** Electrician, Fitter, Box maker, Quality checker, plastic printing operator **Skill deficits:** Plastic Printing Operator **Current status:** Unskilled labour (10^{th} or 12^{th} pass) is currently hired and trained on the job. The course is taught at some ITIs in Rajasthan but not in Himachal Pradesh
Food processing	**Key skill requirements:** Food & Vegetable processor, electrician, fitter, machinist, welder, refrigeration mechanics **Skill deficits:** Fitter, refrigeration mechanics **Current status:** The industry finds it difficult to find skilled fitters within Himachal. Some companies engage with the local ITIs to train employees hired as apprentices under the Apprenticeship Training Scheme (ATS).

8.2 District specific recommendations

Solan, being an industrially advanced district with significant commercial activity has significant opportunities for skill development mainly across the manufacturing and tourism sector. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- High employment potential in manufacturing sector-**Pharmaceuticals, Food Processing, Auto parts manufacturing** and **Textiles**
- **Transport and Logistics** will witness high demand of skilled and semi skilled manpower, given the strategic positioning of the district along the national highway and manufacturing output of the district
- The growth in industrial development in Solan has spurred indirect employment demand in certain unorganized sectors like **security services and facilities management**

- Agriculture is the largest employer in the district, employing around 57 percent of the total workforce .Low input costs and lucrative returns have encouraged farmers to switch to Mushroom farming from the traditional crops like Wheat and Maize.
- Limited irrigation facilities hampering the agricultural output of the district
- Service sector largely dominated by **business tourism.** Another important development is the government's initiative to bring the IT industry, for which it has earmarked 106 acres of land in the district
- High penetration of higher education.
- Poor branding of the ITI's and the ITC in the district.
- Low motivation of the existing teachers to teach in the government institutes.

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

Stakeholder	Action Points for Stakeholders

NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors
	  ○ Pharmaceuticals
	  ○ Food processing
	  ○ Textiles
	  ○ Auto components manufacturing with the focus on Moulding operations like Compression, Transfer and Injection molding
	  ○ Focus should also be to train skilled manpower in new ways of Welding such as MIG, TIG and Arc welding. Current ITI's have a main focus on Gas welding and a limited focus on MIG/TIG
	• Forging public private partnerships with leading private sector firms in Solan to create an inclusive ecosystem for skill development.
	• Set up camps in schools to bring a improve perception of vocational training amongst local youth. This could be materialized by creating a scholarship fund for high achieving students interested in taking up skill related courses.
	• Setting up a Pharmaceutical Sector skill council to define and standardize job roles.

District Administration	• The students find the fee for COE courses to be high and there are affordability issues around the same.
	  • There is a need to create an enabling environment such as an option of taking a loan, in the same way one can, if he chooses to pursue a degree program. Currently, the fee for courses like COE is considered to be quite high by the students. This could be done by associating a lead bank with each ITI in the district.
	• There is low awareness about MES scheme amongst school dropouts in the district. Currently, MES schemes only tend to attract existing ITI students in the district and not the early school leavers.
	  • PRO should campaign to promote MES courses amongst early school leavers at both the school and village level
	• Focus on training in agricultural products and processing especially in Tomato and Mushroom and ensure participation of farmers in training programs from the Centre of excellence in Mushroom cultivation and YS Parmar Horticultural University in the district. This may be achieved by providing startup subsidies on input costs.

Industry	• Industry bodies in the district can offer support and facilitation services through policy advocacy, Industry intervention and International collaboration so that the youth can acquire skills to meaningfully participates in and contributes in the economy. • Support the institutional management committee under the PPP scheme to make it more effective and ensure adequate placements and effective training. • Follow the two pronged approach to start training centers within their own campus and training on specific sector skills and then recruiting the same candidates.
Private Skill training providers	• Focus on placement driven training for youth in the district. • Curriculum should be designed and aligned to encourage placements • Private players may develop curriculum for training students on soft skills. Further, they may forge partnerships with existing government ITI's and focus of soft skill training to students as well as teachers.

7.12 Skill Gap Study of District of Una

7.12.1 Administrative profile

Una is a city and the headquarters of Una district. It is bounded by Kangra district in the north, Hamirpur district in the east, Bilaspur district in the South and Hoshiarpur district of Punjab to the west.

Una is the third smallest district of Himachal Pradesh in terms of geographical area only after Hamirpur and Bilaspur. The area of district is 1,540 sq km, which accounts for 2.7 percent of the total share of the state area[623].

Administratively, the district has been divided into two sub divisions (Una and Amb); three tehsils (Bangana, Amb and Una) and five blocks (Una, Bangana, Gagret, Amb and Haroli)[624].

7.12.2 Social Profile

7.12.2.1 Demographics

As per Census 2011 estimates, Una has a population of around 5.21 lacs[625], contributing to 7.6 percent of the total population. The district population has grown at a decadal growth rate of 15.93 percent in the period of 2001-11[626].

The population density of 338 people per sq. km[627] is much higher than the state average density of 123 per s.km. The high concentration of population in the district can be attributed to the fact that the district is well connected through broad gauge railway network, making it industrialized.

The district has witnessed an increase in female composition of population during 2001-11. Adult gender ratio of Una district has decreased from 977 females per 1000 males[628] in 2001, to 976 females per 1000 males[629] in 2011.However,there has been an increase in the child (0-6 age group) gender ratio from 837 females per 1000 males[630] in 2001 to 875 females per 1000 males[631] in the same period. Una has a reserved caste population of 22.44 percent[632] as compared to 24.72 percent of Himachal Pradesh as per Census 2001.

7.12.2.2 Literacy

The district has a higher literacy rate of 86.53 percent[633] as compared to the state's average of 83.78 percent[634] . The higher rate of literacy in the district can be accounted to economic growth and political importance which has, attracted significant private and public participation in the school segment.

Una has many reputed schools such as DAV centenary, Mount Carmel and Rockford school which are CBSE affiliated and better performing amongst the others. There are 760[635] schools in the district, which are almost evenly distributed across the five blocks. As per 2011 estimates, percentage of drop-outs in both primary and upper primary level is higher than the

[623] *Himachal statistical handbook*
[624] *hpuna.nic.in*
[625] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[626] *http://www.census2011.co.in/census/district/236-bilaspur.html*
[627] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[628] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[629] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[630] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[631] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[632] *http://www.censusindia.gov.in/*
[633] *http://censusindia.gov.in/2011-prov-results/prov_data_products_wb.html*
[634] *http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html*
[635] *Una statistical handbook 2011*

state average. However, special focus should be given to children from migrant labour communities contributing to a major share of school dropouts.

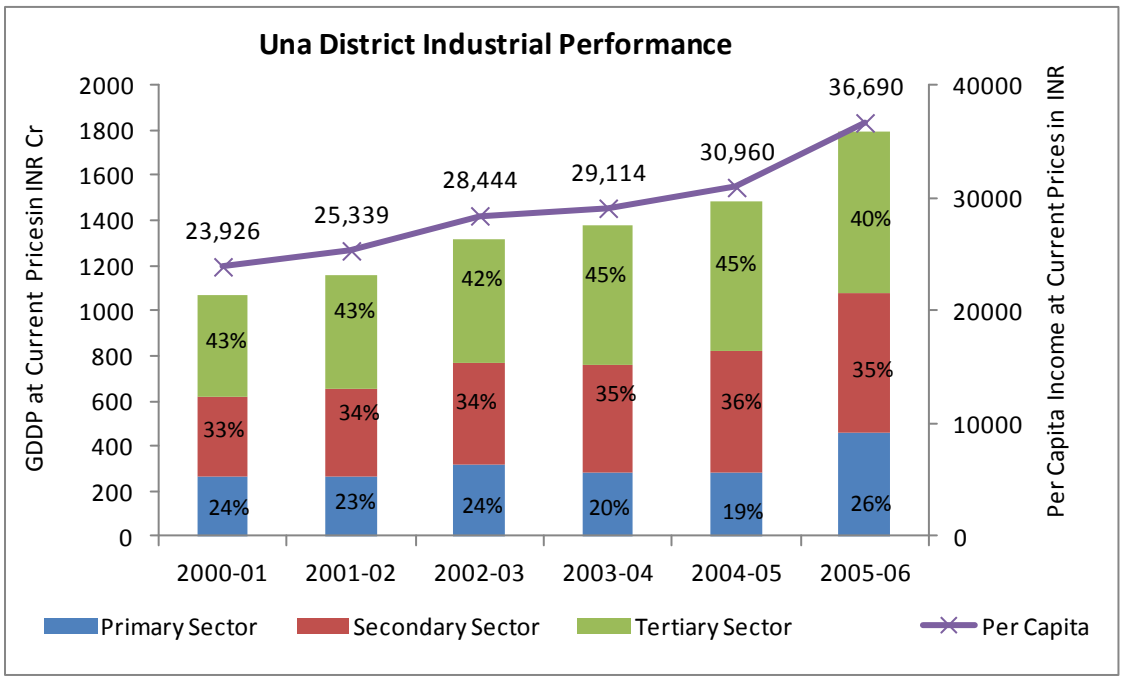
Comparison of district school education statistics with overall state details is presented in the table.

Region	Primary Level		Upper Primary Level	
	Enrolment	Dropout Percentage	Enrolment	Dropout Percentage
Una	46,069	0.75%	28,154	0.42%
Himachal Pradesh	6,19,300	0.30%	3,86,642	0.24%

7.12.3 District Economy

Una is a key district and one of the industrial town's of Himachal Pradesh. The district economy has witnessed a higher cumulative growth of 8.95 percent[636] during 2000-06 in comparison to the state average of 8.44 percent[637] during the same period. Secondary sector constitutes to over 35% percent of district economy, indicating an active manufacturing sector. The sector is mainly dominated by small scale and micro units of wood and wooden based furniture, steel fabrication, engineering units and rubber, plastic and petro based products. The district has also seen an emergence of small scale katha factories over the past few years. The per capita Income of Una has registered a cumulative growth of 7.39 percent[638] during 2000-06 compared to the state compounded annual growth rate of 6.87 percent during the same period.[639]

Sub-Sector wise GDDP growth trends of Una are presented in the graph below.



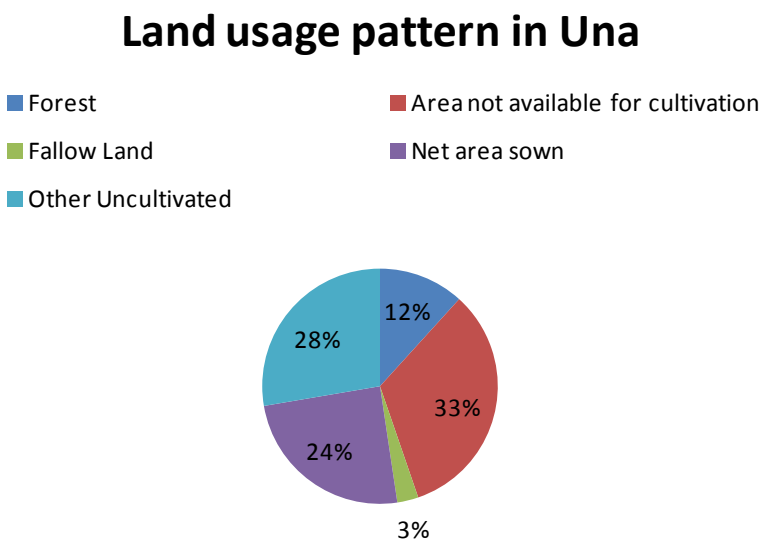
[636] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[637] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[638] http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm
[639] http://hpplanning.nic.in/Growth%20of%20Himachal%20Pradesh%20Economy.pdf

7.12.3.1 Agriculture and allied sectors

Agriculture is the mainstay of Una's economy and more than 85 percent of the district population is involved in agriculture and its allied activities[640]. Una has 47.5percent[641] of its total geographical area under cultivation. According to the available data of 2005-06 from planning commission Primary sector contributes to around 26 percent towards the district's GDP. The main agricultural crops are Wheat, Maize, Paddy, Pulses, Potato and Sugarcane. Dry fruits such as Walnut are also grown in the district.

The total cultivated area in Una is around 73,600 hectares[642] and out of this 44 percent is used for Wheat cultivation[643] .Maize is another important crop of the district and 42.3 percent of the total cultivated area falls under this crop. The district is dependent on various sources of irrigation like ground water from tube-wells amongst others. As per available data from the district report, around 2503 ha [644] of land is irrigated through these alternative channels. The farmers in the district rely on the usage of traditional methods of farming such as iron and wooden ploughs, bullock carts etc. As per the available data from the district statistical handbook, there are only 679 tractors available in the district.

District land usage pattern is presented in the chart[645].



The district has a low forest cover of 11.7 percent in comparison to the state average of 19 percent, primarily due to fast growing industrial blocks in Una.

Pisiculture is an allied activity in Una district with an approximate production of 602 metric tons of fish in 2010-11. This is approximately 7.4 percent of the total state's produce. There are 369 licensed fishermen in the district when compared to 12,343 in the state.[646]

There are 217 primary agricultural credit co-operative societies operating the district, which have so far advanced loans to the tune of INR 111 crores.[647]

[640] *http://atmauna.org/una_dist.html*
[641] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[642] *http://himachal.nic.in/economics/REPORTS/sln_glance.pdf*
[643] *Una district statistical handbook*
[644] *Una district statistical handbook*
[645] *Una district statistical handbook*
[646] *District statistical handbook*

7.12.3.2 Industry

There are six industrial areas in Una namely Mehatpur, Tahliwal,Gagret, Amb, Jeetpur baheri and Basal.There are two more undeveloped industrial areas namely Aghlour and Deoli Ghanari. However, the main concentration of Industries is noticed in the Tahliwal and Mehatpur block which house close to 200 production units. The major investors in this belt are Cremica Agro food, Swiss garnier life science, Mayfair biotech ltd. etc.

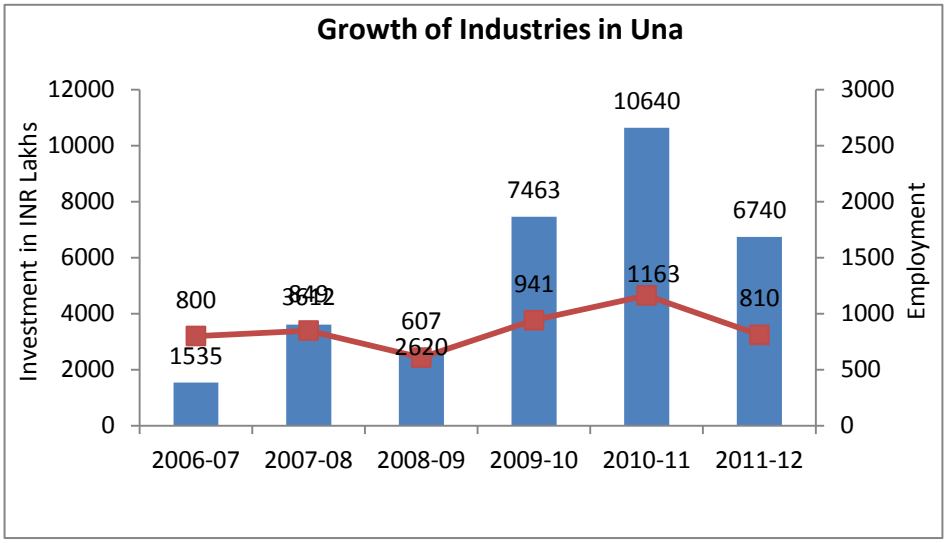
The district does not have any significant presence of mineral excpet Silica sand whose production in the year 2010-11 was close to 17,854 tonnes[648].Minor minerals available in district includeSand, Bajri and boulders. There are negligible export items from the district.

Forests play an important role in the economy of the district and major forest produce that comes forests are in the form of timber, firewood,katha,resin, fodder and herbs.Crest steel and power ltd., S.R. Industries ltd., Luminous teleinfra ltd., Nestle India ltd are the prominent large scale industries operating in the district.

There is a limited scope of ancillarisation of the industry in the district as there are a few large scale units in the area. As per 2011 data, 2133 small scale factories were registered in the district with an investment of 1666 crores, employing around 15,000 people on a daily basis.Una's share in terms of number of registered units was highest in Himachal Pradesh with25.5 percent in 2011.

Between 2006-07 and 2010-11, there have been incremental investments of 326 crores which have created an additional employment of over 5179 during the period[649].

Employment trends in MSME segments over the recent years are presented in the chart.[650]



Based on discussions with District Industries Center, following potential MSME thrust areas were identified in Una district.

Existing	Thrust areas Identified for Promotion
(i) Rubber, plastic and petro products(ii) Wood/Wooden based furniture	Atta Chakki , Spices grinding,

[647] *Himachal Statistical abstract 2011*
[648] *Department of Mines and Geology*
[649] *DIC,Una*
[650] *Brief Industrial profile of Una District, MSME*

(iii) Metal based (steel fabrication), (iv) Chemical based (v) Rubber, plastic and petro based (vi) Engineering units (vii) Repairing and servicing	Canvas school bags, Woolen carpets, hosiery products, Fruit processing, potato chips, Bee keeping and honey processing

Source: Brief Industrial profile of Una district, MSME

7.12.3.3 Services Sector

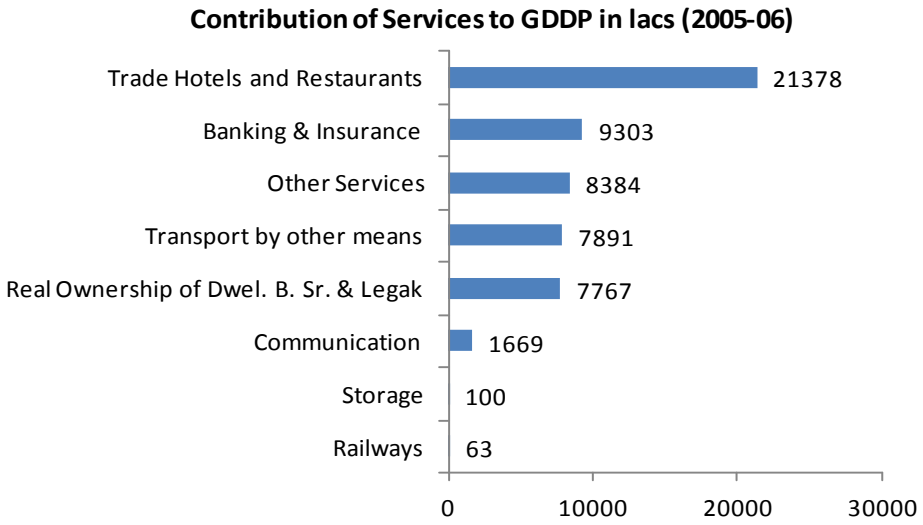
Una district is a key commercial hub due to its proximity with Punjab and this has given way to an active tertiary sector. The sector contributed to 40 percent[651] of Una GDDP during 2006-07.

Services sector in the district is dominated by trade, hotel and restaurants and the banking and insurance[652].Trade activity includes wholesale and retail trade in all commodities including the activities of purchase and selling.

Tourism is another important sector that contributes significantly towards the tertiary sector in Una. It has borders with Kangra and Hamirpur district and hence acts as a gateway to these regions. The district attracted a share of 6.6 percent[653]of the total domestic tourist's travelling to Himachal in the year 2011.

Places of tourist importance in the district include Bangana, Dera Baba Bharbhag Singh and Chintpurni temple.

Composition of services economy in the district is presented in the table below[654].



Una has a mix of old and new hotels and resorts like Green palace, Kapila, Maya deluxe and Suvidha palace. Due to the district's importance as a fast developing industrial town good hotels can be found across all the main industrial blocks like Amb, Gagret and Mehatpur. The number of restaurants and hotels in Una has gone up from 312 to 2366[655] at a compounded annual growth rate of 22.46 percent from 2001-2011.Out of these there are only 47 registered Hotels and guest houses with a bed capacity of 1003.[656]These restaurants and hotels employ nearly 2369 people.[657]

[651] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[652] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[653] *Himachal statistical handbook*
[654] *http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm*
[655] *Una District statistical handbook*
[656] *Directorate of tourism,Himachal Pradesh*
[657] *Una District statistical handbook*

The penetration of banking and financial services in the district, measured as a percentage of GDDP, was close to 5.2 percent as per 2005-06 estimates. Number of bank branches in the district has grown at 8.01 percent CAGR between 2009 and 2011[658] with respect to 6.1 percent for Himachal Pradesh during the same period. Bank credit of approximately 667 crores was given in the district by the commercial and State banks during 2010-11[659] .During the same time the deposits in these banks were approximately2351 crores[660].

The growth in the number of banks from 2009-2011 in the district Vis a Vis the state are highlighted below

	2009	2010	2011
Una	66	83	103
Commercial banks/lacs population	13	16	20
Himachal Pradesh	980	1053	1105
Commercial banks/lacs population	16	17	18

Source: Una and Himachal Pradesh district statistical handbook, Himachal Socio-economic profile

Healthcare coverage in terms of population served, stands at 1411 persons per bed, is much higher than Himachal Pradesh which is 706 people per bed. District has 33 PHCs and 5 CHCs[661]

Details of healthcare infrastructure in the district are provided in the table.

Healthcare Infrastructure in Una 2011-12[662]		
Category	**Number of Institutions**	**Number of Beds**
Hospitals	**2**	**-**
Dispensaries	**1**	**-**
CHC/RH	**5**	**-**
PHC's	**19**	**-**
Total	**27**	**369**

7.12.4 Workforce Distribution in the district

7.12.4.1 Current Employment Scenario in Una

According to census 2001 the total worker population in Una was approximately 2 lacs, out of which 82,890 were women and 1.18 lacs were men. Of the total women worker population, 11.99 percent females were main workers, 25.05 percent were marginal workers and 62.95 percent were non-workers. Similarly, out of total men workers, 41.07 percent were main

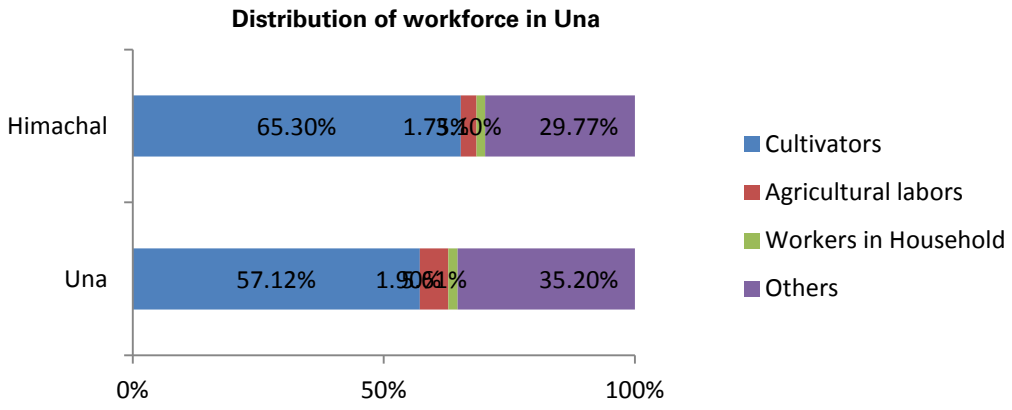
[658] *Himachal statistical abstract*
[659] *Himachal statistical abstract*
[660] *Himachal statistical abstract*
[661] *Himachal statistical handbook*
[662] *Himachal Statistical handbook*

workers, 11.83 percent were marginal workers and 47.10 percent were non-workers. This clearly indicates the wide difference of participation between women and men in the economy.

Region	Total workers	Main workers	Marginal workers	Non-workers
Una	44.99%	26.57%	18.43%	55.01%
Himachal	49.24%	32.31%	16.92%	50.76%

Source: Census 2001

Work Participation Rate (WPR) in the district (44.99 percent) is lower than the state average of 49.24 percent. As per Census 2001 data, the female worker participation rate is around 37.05 percent. This has significantly improved since 1991 when it was only 18.50 percent. This can be accounted to a good work of NGO's, and government departments such as social welfare and DRDA amongst others.



The district notices both inward and outward migration. Outward migration is mainly noticed amongst the students who pursue higher education in districts like Solan and other areas of Punjab. Inward migration is noticed from Jharkhand, Bihar and U.P who do labour work in the factories of Una.

7.12.5 Estimation of supply of manpower in the District

District-wise incremental supply estimates were arrived based on the Census 2011 population data, decadal growth rates for 1991-2011 for the districts and the estimated decadal growth rate for the state from the Population Reference Bureau along with LFPR, WPR from NSSO 68th Round Employment Survey, by apportioning participation rates on a pro-rata basis.

Region	Estimated Population (2022)	Working Age Population (2022)	Labour Force (2022)	Work Force (2022)
Una	592,773	311,799	145,549	136,379
Himachal	7,806,762	4,106,357	2,159,944	2,023,867

Source: KPMG analysis

7.12.5.1 Incremental Supply of labour force in the district

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. Una is expected to witness a high growth in supply of 16.5 thousand incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

	2012-17			2017-22		
Region	**Skilled**	**Semi skilled**	**Minimal skilled**	**Skilled**	**Semi skilled**	**Minimal skilled**
Una	3,074	2,205	2,942	3,107	2,229	2,973
Himachal	43,476	26,005	52,513	43,942	26,284	53,077

Source: KPMG analysis

7.12.5.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Una 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 Una.

Sector wise skill level requirements during 2012-22

	2012-17			2017-22		
Sub Sectors	**Skilled**	**Semi-skilled**	**Minimal skilled**	**Skilled**	**Semi-skilled**	**Minimal skilled**
Agriculture & Allied Activities	-	-	(1,269)	-	-	(1,252)
Food Processing	40	154	224	50	193	282
Fabricated metal products	14	56	70	13	53	66
Paper & Paper Products	4	14	18	4	16	20
Chemical & Chemical Products	27	109	137	30	121	151
Manufacturing of Engineering Products	11	44	55	12	48	60
Textiles	15	59	74	22	87	108
Manufacturing of Electrical Products	13	50	63	14	56	70

Construction	2,423	4,846	41,191	2,779	5,559	47,252
Healthcare	295	1,180	-	309	1,235	-
Transportations and Logistics	99	1,565	1,862	106	1,679	1,997
Retail	18	18	147	16	16	131
Hospitality	58	86	432	51	77	386
Communication	426	1,277	-	426	1,279	-
Banking and Financial Services	1,184	3,551	-	1,275	3,825	-
Education and Training	43	293	-	8	55	-
Total	4684	13365	43080	5135	14375	49366

Source: KPMG Analysis

* Please note: Only the key industries have been highlighted individually in the section. Hence, the total may not add up.

7.12.6 Human Resource Development in the District

7.12.6.1 Current State of Workforce Development

Largely an industrial destination, Una is also home to a number of institutes of higher education's with a marginally high penetration of colleges in comparison to state average. There are 8 state run colleges in the district and the known ones are Indus University, Swami Vivekananda College and Shanti College of education. Comparison of higher education infrastructure in Una with Himachal is presented in the table

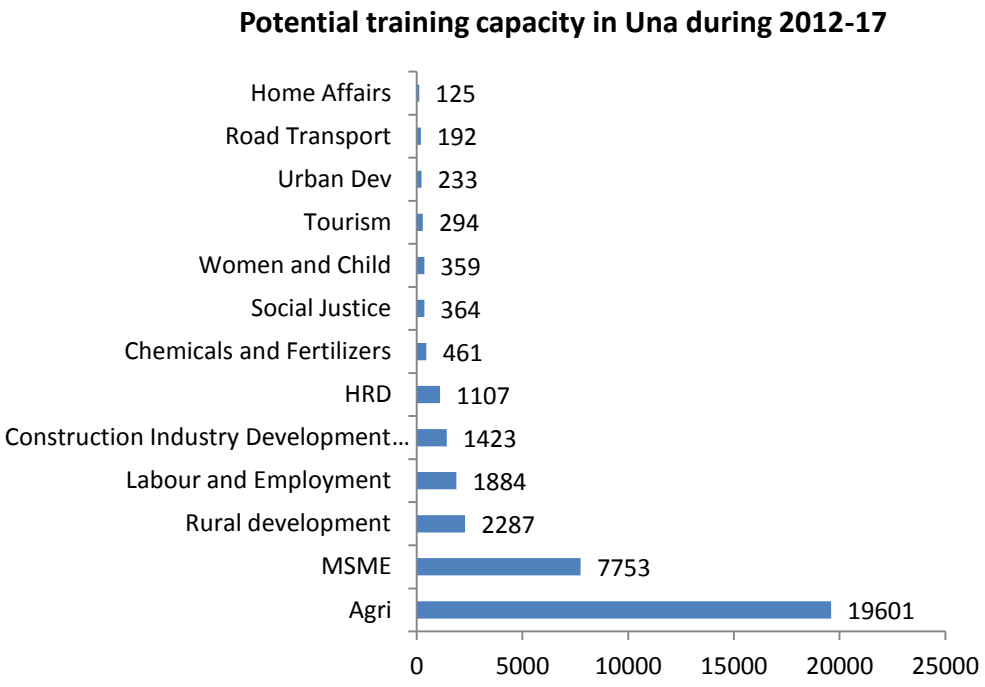
Category of College	Himachal	Una
Arts, Science and Commerce	101	8
Engineering/Technology/Architecture	20	2
Medical (Allopathic/Dentistry/Homeopathy)	7	-
Nursing	12	2
Pharmacy	14	2
Management/Business Management	39	7
Education/Teacher training	84	5
Law	8	1
Others (including teacher training institutions, Polytechnics etc)	105	10
Total	409	37
Density(Colleges per Thousand Population)	0.06	0.07

Accessibility of vocational education in Una is marginally better than the state average. This is due to a good private participation in the technical education space. There are 3 private polytechnics in the district which create an additional capacity for the district.

District Wise ITI/ITC Infrastructure (2011)[663]									
	Number				Sanctioned Intake				Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total		
Himachal	84	120	204		13,310	10,459	27,364		4
Una	6	15	21		782	1485	2267		4.2

7.12.6.2 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 seven thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture and MSME has significant training mandates in the district.



7.12.6.3 Students Interaction outcomes-Youth Aspirations

Students in the district come from a lower middle class background with their household income being in the range of INR 8000 to 15,000 per month. Most students were open to migrate for job opportunities within or outside Himachal Pradesh. However, they noted that the pay should commensurate with their expenses. Students with an in-plant training experience confirmed that they are made to do laborious work and they did not see any value addition. Students were aware of the job opportunities available after an ITI certificate. The salary expectations range from INR 8000 per month to 18,000 per month and students preferred a government job over a private one for job security reasons.

7.12.6.4 Skill mapping and developmental concerns

[663] *http://www.techeduhp.com/itc.html*

Based on the interactions with the local industries, government departments, local population and technical institutes it was observed that the district has varying levels of skill gaps. Reasons for these gaps were identified and noted.

.Following key skill gaps were noticed amongst the prominent industries

Industry	Skill study outcomes
Pharmaceuticals	**Key skill requirements**: Pharmacist, Electrician, Fitter, Mechanical, Technician **Skill deficits:** Pharmacist **Current status**: The hiring for supervisor level employees is done from B.Pharma and D.Pharma courses at the Polytechnics. The machine operators are mostly unskilled (10^{th} or 12^{th} pass). The industry sees no benefit in hiring an ITI diploma holder as the similar level of training needs to be provided to a 10^{th} or 12^{th} pass employee. The company interviewed notes that it is not possible for ITIs to match the machinery used in the industry and were open to the prospect of in plant training or industry visits for students. The industry could benefit if topics particularly pertaining to the pharmaceutical industry including micro-biology, hygiene and pest control could be covered in the machinist courses at the ITI's.
Automotive	**Key skill requirements:** Iron Testing, Room Heater Testing, Fitter, Turner, Temperature rise checking **Skill deficits:** All **Current Status:** Major hiring involves 10^{th} pass students. Some temperature rise checkers are hired on contract from the electric trade at the ITI. The people in Quality checking are usually engineers or polytechnic diploma holders. Most natives do not prefer to do laborious work in the low lying areas with higher temperatures. A significant number of people leave the job after 3-4 months.
Electronic equipment manufacturing	**Key skill requirements:** Welder, Fitter, Painter, Electrician, Electrical operator **Skill deficits:** Electrician **Current status:** Most labour used in packing is completely unskilled (8^{th} pass). A 3 month training program is run for students of electrical and electronics trade from private ITIs (Una, Kangra and Jwala). Roughly 20% of the work force at the shop floor is hired from the ITIs and the rest completely unskilled. About 10-12 women have recently been trained and hired since women generally tend to be more consistent on the job.
Food Processing	**Key skill requirements:** Fitter, Turner, Packer, Electrician, Machinist **Skill deficits:** None **Current Status:** Majority of the workers include the packing helpers who are completely unskilled (8^{th} or 10^{th} pass). Hiring is done from ITIs for turner or fitter operators only
Plastic products manufacturing	**Key skill requirements:** Plastic Process Operator, Injection Moulding Operator, Fitter, Electrician **Skill deficits:** Injection Moulding Operator **Current Status:** Technical skill requirement is mainly needed at the supervision level. Most low level employees are unskilled (10^{th} or 12^{th} pass) with basic reading and writing knowledge. The industry prefers to provide training on the job since most machinery is unique to each company and is not possible to be set up at training institutes.

8.3 District specific recommendations

Una is an industrially prosperous district. Recommendations for skill development in the district are made considering the following points related to the skill ecosystem in district:

- Employment potential in Resource based industries-**Cattle feed, Pickles and chutneys, Wooden furniture, Mini cement plant, Bee keeping and honey processing**
- Employment potential in Skill based industries-**Woolen carpets and Hosiery products**
- Employment potential in demand based industries-**Spices grinding, Ice creams, Packaged water, Canvas school bags, Travel bags, corrugated paper boxes**
- Employment potential in Chemical industries **such as HDPE/IDPE pipes, Insecticides/Pesticides, Paint and varnish, Detergent powder**
- Truck unions are a major setback to the industries as they are charging very high rates as compared to the other states
- Agriculture and Horticulture is the largest employer in the district, employing around58 percent of the total workforce (both cultivators and Agricultural labors).
- Poor branding of the ITI's and the ITC in the district as the youth sees lower entry level salaries.
- Low motivation of the existing teachers to teach in the government institutes.

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

Stakeholder	Action Points for Stakeholders

NSDC	• Focus on increasing participation from national/regional private skill training providers with focus on the following sectors
	  ○ Carpentry
	  ○ Bee keeping and honey processing
	  ○ Fashion designing
	  ○ Food processing
	• Creating a scholarship fund for high achieving students interested in taking up skill related courses.
	• Promoting vocational education at the grass root level through policy advocacy, school camps and encouraging students to take up NVEQF programs in schools

District Administration	• Ensure women participation in skill development, as 63 percent of all the women in the district are Non-workers. • Centre of Excellence scheme should be promoted appropriately in the district to ensure higher fulfillment rates. The scheme must also be promoted amongst the companies that come to recruit from ITI Una through seminars. • Create an enabling environment such as an option of taking a loan for the students who wish to pursue self employment after graduation • Make effective use of Public relation officer's to promote campaigning for admitting school dropouts in MES courses. The current target oriented approach is benefitting only a certain strata of the beneficiaries (people looking to up skill themselves)

	• Creating an infrastructure for Skill development of teachers (such as a tool room) within the district and make trainings mandatory for all the trainers. Optionally, the same could be started at the State level.
Industry	• Support the institutional management committee under the PPP scheme to make it more effective and ensure adequate placements and effective training. • The industry may offer Apprentices work related to the trades they have learnt during their time in the ITI's and make their learning's as effective during their time as an Apprentice. • Increase desirability of jobs through improved work environment. • Industry may promote women in the district by ensuring an adequate mix of male and female workers. • Participate in "train the trainer" programs to improve the quality of training delivery • Industry can collaborate with skill development institutes for updating the course content and creating linkages for placements. • Industry can support Vocational education through scholarship funds for the needy but meritorious students
Private Skill training providers	• Focus on placement driven training for youth in the identified Skill gaps in the district. Curriculum should be designed and aligned in such a way that the student gets an option for placement. Experts in form of guest lecturers from the industry could be called to deliver modules. • Update machinery and provide manuals in workshops for practical classes. • Private players may develop curriculum for training students on soft skills. Further, they may forge partnerships with existing government ITI's and focus of soft skill training to students as well as teachers. This would open another revenue stream for these players.

9 Glossary

Abbreviation	Explanation of abbreviated terms
HPSIIDC	Himachal Pradesh State Industrial Infrastructure 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 Assistant
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
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 Fertilizer 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	Kilometer
LPG	Liquefied 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	Millimeter
MoU	Memorandum of Understanding
MSME	Micro, Small and Medium Enterprises
MT	Metric Tonnes
MW	Mega Watt
NAC	National Academy of Construction
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 Kiran
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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