Skilling for the Future

Skill Gap Assessment & Action Plan for Tamil Nadu

District Skill Development Plan for The Nilgiris

November 2019

Acknowledgement

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List of Abbreviations

S.No	Abbreviation	Expanded Form
1.	ASER	Annual Status of Education Report
2.	ASI	Annual Survey of Industries
3.	BFSI	Banking Financial Services and Insurance Sector
4.	CTTA	Coonoor Tea Trade Association
5.	CFC	Common facilities centre
6.	DDU-GKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana
7.	DES	Directorate of Economics and Statistics
8.	DISE	District Information System for Education
9.	GDDP	Gross District Domestic Product
10.	GSVA	Gross State Value Add
11.	DIC	District Industries Centre
12.	GVA	Gross Value Added
13.	ITI	Industrial Training Institute
14.	IT-ITES	Information Technology and Information Technology Enabled Services
15.	INDCOSERVE	Tamilnadu Small Tea Growers Industrial Cooperative Tea Factories Federation Ltd.
16.	LFPR	Labour Force Participation Rate
17.	Manuf.	Manufacturing
18.	MIS	Management Information System
19.	MSME	Micro, Small and Medium Enterprises
20.	NCVT	National Council for Vocational Training
21.	NEET	Not in Education, Employment, or Training
22.	NIC	National Industrial Classification (2008)
23.	NSDC	National Skill Development Corporation
24.	NSQF	National Skills Qualification Framework
25.	NULM	National Urban Livelihood Mission
26.	PMKVY	Pradhan Mantri Kaushal Vikas Yojana
27.	PSU	Public Sector Undertaking
28.	Pub. Admin.	Public Administration
29.	QP-NOS	Qualification Pack – National Occupational Standards
30.	SIDCO	Tamil Nadu Small Industries Development Corporation Limited
31.	SIPCOT	State Industries Promotion Corporation of Tamil Nadu
32.	SIR	Special Investment Region
33.	SSC	Sector Skill Council
34.	TANSIDCO	Tamil Nadu Small Industries Development Corporation Limited
35.	TIDCO	Tamil Nadu Industrial Development Corporation
36.	TN-GIM	Tamil Nadu Global Investors Meet
37.	TNSDC	Tamil Nadu Skill Development Corporation
38.	TNSRLM	Tamil Nadu State Rural Livelihood Mission
39.	TNHDC	Tamil Nadu Handicrafts Development Corporation
40.	Tr. & Tou.	Trade and Tourism Sectors
41.	TRIFED	Tribal Cooperative Marketing Development Federation Of India
42.	WPR	Worker Population ratio

Executive Summary

Background: The Vision 2023 of Tamil Nadu envisages shaping its future by empowering the youth in the state, through imparting market relevant skill training; to become responsible and participating citizens who drive a new era of development, growth, and productivity. Tamil Nadu has formulated a State Youth Policy, which aims at reinforcing and accomplishing the broader objectives of 'Vision Tamil Nadu 2023'. The policy focuses on upgrading the human capital of the state by building on the intellectual and creative potential of youth in various fields, thereby transforming Tamil Nadu into the innovation hub and knowledge capital of India. It also aims at enabling Tamil Nadu to collaborate with other States in the country and the rest of the world on multiple dimensions: increasing the flow of workforce and goods/services, enhancing the levels of exchange of ideas and culture, and facilitating the movement of people to and from Tamil Nadu for opportunities. To attain this objective the State envisages training and skilling of 20 million persons by 2023[1].

Tamil Nadu currently has the highest Gross Enrolment Ratio in Higher Education (48.6)[2], among all the states in India. The state faces a mandate of developing and maintaining high quality human resources to deal with the evolving economy, and ensuring social justice in the form of decent employment for its educated populace. Thus, it is essential to carefully analyse the industry demand, investment patterns, youth aspirations and re-align policy/ programmatic initiatives in that direction. Thus, taking youth aspiration and industry growth potential is critical to be able to avoid labour demand-supply mismatch, and support overall development of the State.

Context for Present Study: In 2012, The National Skill Development Corporation commissioned a skill gap study for Tamil Nadu. The study covered 12 Districts, based on which an extrapolation was done for the remaining districts. The study adopted a mix of secondary and primary research and relied largely on focus group discussions with various stakeholder groups such as youth, employers, industry associations, government officials, and skill training providers. Skill gaps were estimated for a period of 10 years, up to FY 2022. Given the rapid change in the state's social and economic context, there was a need for a fresh assessment of the state's skill ecosystem. There is also a need to understand the needs of the youth from diverse geographical backgrounds across the state, especially reaching out to economically backward regions. It is expected that a contemporary estimation, using both quantitative and qualitative analysis would reveal more relevant insights and findings related to the demographic profile, socio-economic characteristics of the youth, emerging sectors and job roles, and the skill-sets in demand.

The Present Study: The Tamil Nadu Skill Development Corporation (TNSDC) has, through a competitive procurement process, engaged PricewaterhouseCoopers Private Limited (PwC) to carry out "Skill Gap Assessment and Action Plan" for the state. This is the first time such a comprehensive State-wide skill gap study taking into consideration block-level information from each district has been conducted in Tamil Nadu. The study aims at identifying sources for self and wage employment in all 32 districts, estimating the sector-wise current and future labour demand (over the next six years) by industry, and assessing the overall labour supply and estimating the existing and emerging skill gaps.

The Skill Gap study offers insights into: (i) which skills are required to support the State's economic growth, while also catering to the career aspirations of the youth; and (ii) how to design appropriate interventions that will enable active collaboration between various stakeholders for the common good. Workforce demand-projection for the upcoming years, disaggregated as skilled and semi-skilled workforce requirement has been estimated at the district level.

Methodology for Study: Mixed-method research design was adopted encompassing a blend of quantitative and qualitative data collection techniques, and desk research on secondary data sources. Structured into two phases, the first phase of the study comprised a comprehensive desk review of the state's demography, economy, labour market, educational and skill development profile. The second phase of the study comprised the following:

1. **Youth aspiration survey:** a quantitative survey covering 360 youth across the following groups – engaged in economic activity (self-employed, wage-employed, entrepreneurs), students in formal education, vocational and skill training institutions (Polytechnics, ITI), and those who fall under the Not in Education, Employment or Training (NEET) category. Three blocks in the district were covered: Udhagamandalam, Gudalur and Coonoor.

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[1] Tamil Nadu Skill Development Corporation [https://www.tnskill.tn.gov.in/index.php/link/abouttnsdc]
[2] All India Survey on Higher Education 2017-18

2. **Quantitative employer survey**: covering 26 employers with adequate representation from Large, Medium, Small and Micro Industries across the key sectors defining the district economy.

3. **Focus- Group Discussions (FGD's) and stakeholder consultations** across a wide group of stakeholders including, representatives from Industrial units (with additional focus on MSME sector), district-level Industry Associations across priority sectors, officials from various government departments, representatives from various higher education institutions, and training service providers. In all, a focus group discussion and individual consultations with over twenty stakeholders have been conducted in the district.

Estimation of labour demand and supply were undertaken based on the analysis of data sourced from the Census of India, the Department of Economics and Statistics of Government of Tamil Nadu, the Reserve Bank of India, the National Sample Survey Organisation and the Bureau of Labour and Employment under the Ministry of Labour and Employment, Government of India. Estimates were further refined based on the data pertaining to the proposed investments (pragmatically rationalised and considered), and the anticipated developments within key sectors; in addition, due consideration is given to the emerging sectors and job roles. The sectors and job roles in demand have been organized into training projects, which are informed by the demand estimations, and validated through quantitative survey findings and qualitative consultations. Budgetary requirements for the training projects have been estimated based on the cost categories as defined within the recent Common Cost Norms published by the Ministry of Skill Development and Entrepreneurship, Government of India.

Key Findings: Key findings of the study are presented hereunder:

Demographic Analysis	• The decadal growth rate of the population in the district was -4% between 2001 and 2011, compared to 16% at state level. • The population is set to get much older in 2026 with a median age of around 33 years, with 48% of the population in the age group of 30-59 years.
Economic Analysis	• The economy of the district is dominated by the service sector, which consistently accounts for about 63% of the GVA between 2011-12 and 2016-17. The agriculture and allied sector have a negative CAGR of -1% over 2011-12 and 2016-17; Industries CAGR was at 11% and services at 7% during the same reference period. • Manufacturing makes up to 54% of the industrial sector GVA and construction contributes to 45%. • Tea processing is a major manufacturing activity. • Real estate, logistics, travel and tourism are major contributors to service sector GVA. • The travel and tourism industry have also been growing but it witnessed a slump in growth in 2015-16. The growth in real estate is attributed to people from across the state wishing to own holiday homes in the Nilgiris. These properties are then rented out as guest houses and homestays for tourists.
Labour Market Analysis	• The overall labour-force participation is 65% and worker population ratio is also 65% - higher than the state average for both indicators. About 70% of workers in the district are casual labourers and 16% are wage employed. • About 56% of the working population are involved in agriculture and allied activities, 22% in tourism and trade related activities.
Education & Skill Development	• The Gross Enrolment Ratio at both Primary and Upper Primary are higher than the state averages. • The Nilgiris has 6 ITIs of which one is government run. There are also 3 polytechnics and 6 arts & science colleges. The famous McGan School of Architecture is located here and draws students from across the state.
Findings from Primary Survey	
Youth Profile and Aspirations	• 46% of the overall respondents were female and about 56% were from rural areas. • Female respondents were predominantly part of the NEET category (47%) and 20% were in a wage/salaried employment. Among the male respondents, only 7% belonged to the NEET category; 39% identified as students. • Only 49% of the respondents are currently engaged in some economic activity and 83% are involved in a work related to their education/training. • About 37% of women reported that they have been in the NEET category for more than 5 years. Also, when inquired about the reason for being in NEET category, 39% of women said that unpaid household work takes up most of their time. This indicates a need for change in attitudes towards women employment in the district. • Only 11% of respondents are aware of government run skill development programmes. • The main factors determining the aspiration of the youth are Salary (wages) / Income (82%), Social Status (24%) and job security (20%).

	• 97% of the total respondents stated that they were not interested to take up any gig work[3]. • About 21% of youth aspire to work in the agro-business sector. Other sectors of interest are iron and steel, auto components and construction. 9% of men were also interested in the chemicals sector.
Employer & Other Key Stakeholder Perspectives	**Quantitative Survey** • Majority of industries were from the travel, tourism and hospitality sectors. Of the overall sample, 38% were small scale industries, 54% were medium industries and 8% were large industries. • The most common challenge faced by employers was candidate disinterest and attitude (91%), followed by high local wages (75%) and the requirement of physical work (36%). • The employers had mostly male employees – on an average, the enterprises employed 69% males. • Unskilled workers dominated the share of workforce (45%) followed closely by semi-skilled workers (31%). The hospitality industry mostly prefers unskilled workers with low educational attainment for job roles like cleaning, attendant, cook, etc. The large-scale tea plantations have started relying on unskilled migrant workers as the local workforce is uninterested in such jobs. • Over 71% of the employers feel there is high growth prospects in the industries. **Qualitative Inputs** • Candidates usually move out of the district for education. • Most candidates in the district do not prefer a diploma or ITI education • Given that most employment available is only gig work, local youth tend to keep switching jobs. • Migrant workers are majorly employed in tea estates for unskilled jobs such as tea plucking and pruning.
Incremental Demand	• In the next 6 years, Nilgiris will see a demand for about 29,000 workers. Major sectors that drive the demand are manufacturing, agriculture and allied activities, transportation and real estate.

Recommendations: Based on qualitative, quantitative and secondary information findings and inferences, the following recommendations have been identified for consideration:

- **Tea Tasting** is an important component of tea manufacturing and only 5 institutes across the country offer a course on that. A relevant QP/NOS can be developed for this since a considerable number of tea tasters are required in Nilgiris.
- The temperature in Nilgiris is ideal for the cultivation of plants like thyme, rosemary, eucalyptus, lemon tree and other plants used in the **extraction of essential oils** and medicines. In collaboration with the Department of Horticulture, the cultivation of these crops needs to be promoted and skill training in growing these crops is required in Nilgiris.
- There are about 60,000 small scale tea farmers who have stopped cultivation because they are unable to afford the labour and do not have access to machinery for mechanised farming. Clusters of small scale tea growers can be formed along with a **common facilities centre** (CFC) which houses the required machinery and skilled worker to handle the same that can be borrowed/ hired and used on these farms.
- The **Toda embroidery work** has a GI tag but is still being copied, manufactured and sold by large scale textile units in the country. In order to ensure that the community wholly benefits from their products, such practices need to be regulated. TRIFED and the Poompuhar (Tamil Nadu Handicrafts Development Corporation) can support the artisans in securing a stable market for their products.

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[3] In a gig economy, temporary, flexible jobs are commonplace and companies tend toward hiring independent contractors and freelancers instead of full-time employees.

1. District Profile

The Nilgiris district was carved is located at the westernmost end of Tamil Nadu adjoining the states Karnataka and Kerala. It gets its name from the Nilgiri mountain ranges that run in the area. The Nilgiris is a mountainous region blessed with forests and a wide variety of flora and fauna. Ootacamund, the popular hill station known as Queen of the Hills is located here.

1.1. Demographic Profile

Table 1: Key Demographic Indicators – The Nilgiris vs Tamil Nadu[4]

SN	Indicator	The Nilgiris	Tamil Nadu
1	Total population	7,35,394	72,147,030
2	Female Population	3,75,251	36,009,055
3	Population Density per sq.km (2011)	287	555
4	Urbanization	59%	48%
5	SC population (as % of total population)	32%	20%
6	ST population (as % of total population)	4%	1%
7	Differently abled population (as % of total population)	2%	2%
8	Population in age group 15-34 years (as % of total population)	34%	35%
9	SC population aged 15-34 years (as % of SC population)	35%	37%
10	ST population aged 15-34 years (as % of ST population)	33%	35%
11	Literacy rate	85%	80%

Snapshot of the Nilgiris' Demography

8th Urbanized district in Tamil Nadu

79%
92%

State 995
The Nilgiris 1042
SEX RATIO

Male Literacy Rate
Female Literacy Rate

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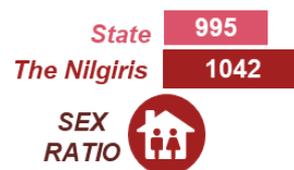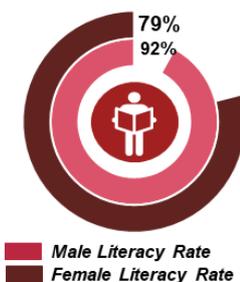
[4] Census 2011 & 2011

Key Highlights from the analysis of Census Data:

- **Population Growth and Urbanization:** The Decadal growth rate **of the population in the district** was -4**%** between 2001 and 2011, compared to **16%** at state level. This shows that the population is decreasing as more people are moving to nearby districts for education and other livelihood opportunities.

- **Literacy:** The district has a high literacy rate compared to the state. The female literacy rate is at 79% while the male literacy rate was 92%.

- **Youth Demography:** 34% of the population was between 15-34 years in 2011 with a Median age of 26 years much lower than the median age of the state, which was 29 years. The population is set to get much older in 2026 with a median age of around 33 years, with 48% of the population in the age group of 30-59 years as illustrated in the age-wise population pyramid of the district as seen below. This is because of the decreasing overall population in the district as well.

Figure 1 Age-wise Population Pyramid of The Nilgiris (2011 vs 2026)[5]
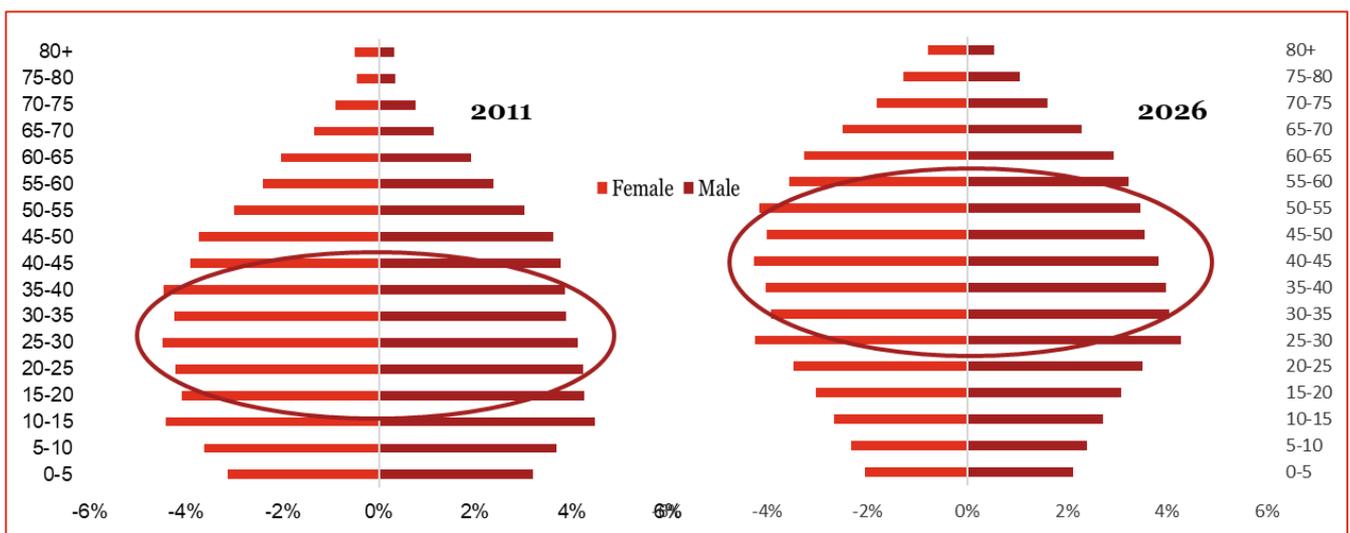
1.2. Economic Profile

As seen in Figure 2, The Nilgiris ranks twelfth in per capita GDDP across the state. Between 2011-12 and 2016-17, the GDDP grew at 7%.

Figure 2 Key Economic Indicators of The Nilgiris District[6]

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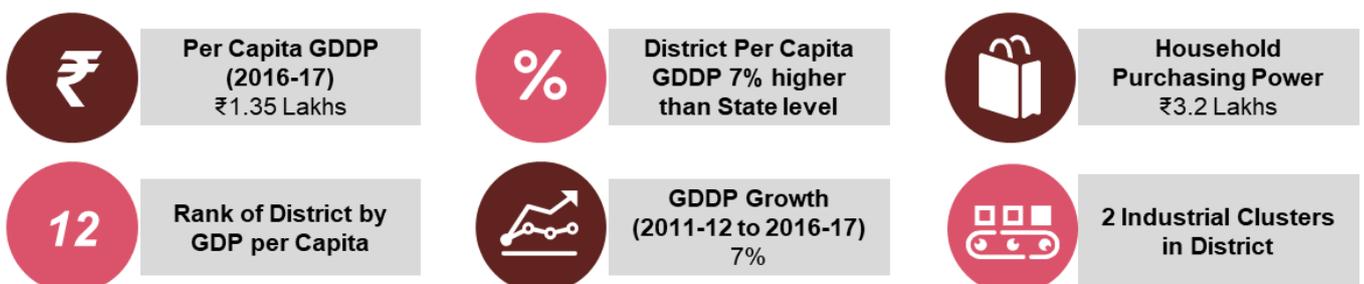
[5] Age wise Population projected for 2026 based on age group wise life expectancy, birth and death rates

[6] Household Purchasing Power is calculated from the total purchasing power (disposable income after savings/ investments) of the district, divided by the projected number of households (savings/ investment data calculated from RBI database on savings). A strong correlation exists between the Per Capita GDP, the Banking Sector indicators (adjusted to population) and the consumption expenditure (disposable income) reported under NSSO at the national and state level. This relationship was further verified with data over several years. The state level purchasing power is then further broken down to the district level based on the district level banking data (savings and deposits) and the district level consumption estimates of the NSSO. Source- districtmetrics.com

1.2.1. Sector wise Analysis[7]

Agriculture and Allied sector

12% of GVA

Tea plantation is the major contributor. Dairy farming activities contribute 21% of agriculture GVA.

Industrial sector

25% of GVA

Manufacturing makes up 54% of the industrial sector GVA and construction contributes to 45%.

Service sector

63% of GVA

Real estate accounts for 44% of the service sector in 2016-17 and had a CAGR of 8% between 2011-12 and 2016-17.

Figure 4 Sectoral Share of GVA (2011-12 & 2016-17)
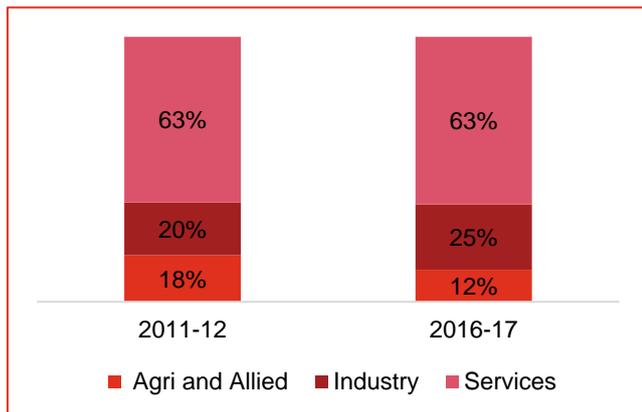
The economy of the district is dominated by the service sector, which consistently accounts for about 63% of the GVA between 2011-12 and 2016-17. The agriculture and allied sector has a negative CAGR of -1% from 2011-12 to 2016-17; Industries CAGR is at 11% and services has a CAGR of 7%.

Table 2: Sector wise- Annual Growth Rate in The Nilgiris (Directorate of Economics and Statistics, TN)

Sector	2012-13	2013-14	2014-15	2015-16	2016-17	CAGR
Agri & Allied	-3%	-1%	4%	-5%	-1%	-1%
Industry	12%	12%	6%	22%	4%	11%
Services	5%	10%	7%	6%	5%	7%

Figure 5 Share of GVA by Industry of Origin (2016-17)
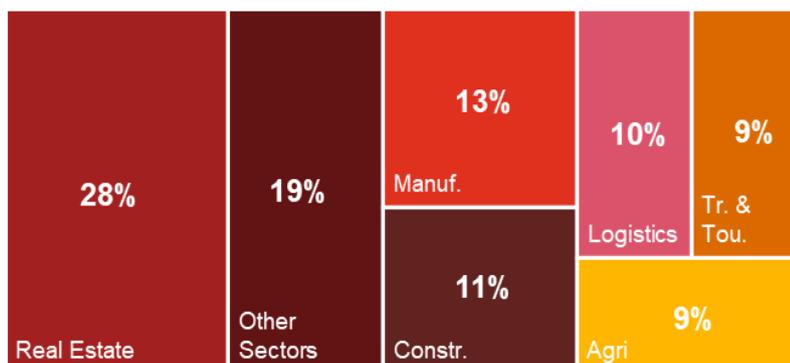
Real Estate is the major contributor to the GVA (28%) followed by manufacturing (13%). Though agriculture witnessed a negative growth rate from 2011-12 to 2016-17, it still contributes to 9% of GVA.

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[7] Directorate of Economics and Statistics, Tamil Nadu

Agriculture and Allied Sector

Figure 6 shows the share of the different components in the agriculture and allied sector GVA of 2016-17. The Tea is cultivated in over 49,000 hectares in the district. The hilly slopes and the cooler climate makes it ideal for tea cultivation. Coffee, vegetables like carrots and potato, fruits and flowers are the major plants cultivated. Though not a significant contributor to GVA, inland fishing is carried out in a few lakes and dams around the district. Dairy farming is also practised largely.

Figure 6 GVA of Agriculture and Allied Sectors (2016-17)

74%   21%   5%   0%

■ Agri.   ■ Livestock   ■ Forestry   ■ Fishing

Source: Directorate of Economics and Statistics, TN
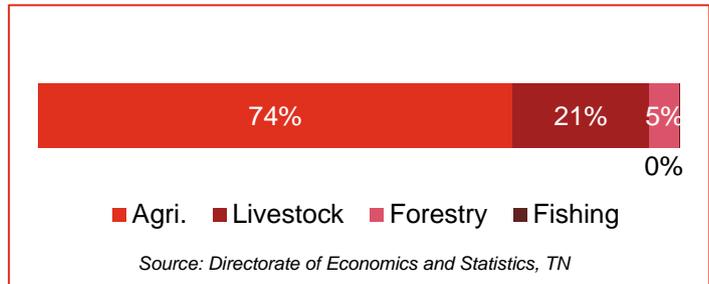
Industrial Sector

Manufacturing makes up 54% of the industrial sector GVA and construction contributes to 45%. Tea processing is a major manufacturing activity.

The major industries in the Nilgiris are the Cordite factory in Aruvangadu, the Pony Needle industry and the Pasteur Institute of India in Coonoor. The district has 4 hydro power generation plants.

There were four clusters established in tea, essential oils, homemade chocolates and cut flowers like orchids. However, the cut flower and essential oil cluster have not been successful due to very few farmers growing the necessary crops.

Figure 7 Industrial Sector GVA (2016-17)

0%   1%   45%   54%

■ Manuf.   ■ Constr.   ■ Utilities   ■ Mining

Source: Directorate of Economics and Statistics, TN
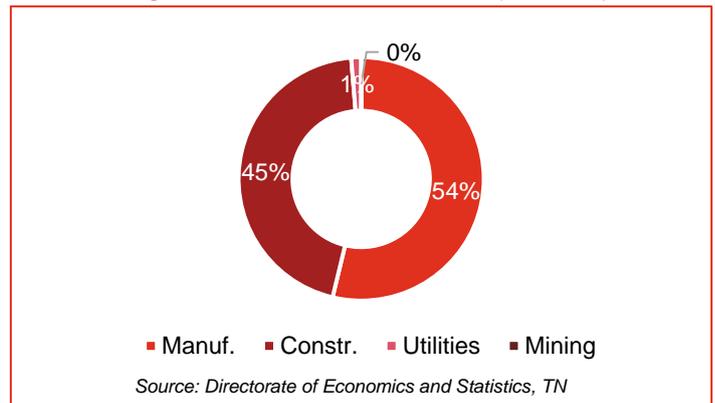
Key Clusters and Traditional Industries		
Tea Cluster, Kotagiri	Homemade Chocolates, Ooty	Toda Embroidery

Table 3 Profile of Manufacturing Sector from ASI

Industry	No. of Units	Gross Value Added (share in total GVA)	No. of Employees	Share of Employment	Average workers per unit
Manufacture of other food products including tea and coffee manufacturing	142	37,305	6,009	67%	42
Manufacture of other fabricated metal products; metalworking service activities	27	12,071	2,602	29%	96
Maintenance and repair of motor vehicles	12	2,195	300	3%	25

Source: Annual Survey of Industries 2014-15

According to the ASI 2014-15, manufacture of other food products (tea) has about 142 units. The tea estates attract migrant workers from other states for work as the local population is not interested in such activities.

Existing Industrial Estates

- SIDCO

Services Sector

Real estate, logistics, travel and tourism are the major contributors to service sector GVA. Real estate accounts for 44% of the service sector in 2016-17 and had a CAGR of 8% between 2011-12 and 2016-17. The travel and tourism industry has also been growing but it witnessed a slump in growth in 2015-16. The growth in real estate is attributed to people from across the state wishing to own holiday homes in the Nilgiris. These properties are then rented out as guest houses and homestays for tourists.

Figure 8 GVA of Services Sector (2016-17)

44%	16%	15%	8%	7%	7%	3%

■ Real Estate   ■ Logistics   ■ Tr. & Tou.   ■ Pub Admin   ■ Other services   ■ BFSI   ■ Comm.

Source: Directorate of Economics and Statistics, TN
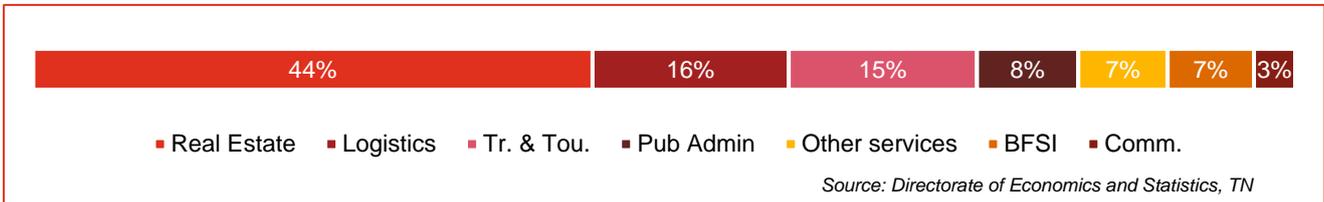
Traditional sector analysis

Toda Embroidery

The Todas are a pastoral tribe from Nilgiris who have been traditionally living in the hills of the Nilgiris. They have their specific customs, language, beliefs and a style of embroidery characteristic of the tribe. The women of the tribe usually practice this embroidery which is done without a frame using thick cotton fibres. A Geographical Indication certificate was obtained for this distinct embroidery in 2013.

Figure 9 Toda embroidery design

- **Employment**: There about 538 Toda families in Tamil Nadu[8] and every family usually practises this embroidery whether it is for personal or commercial use.
- **Major products**: Shawls, dresses, sarees and scarves.
- **Marketing**: Most artisans who produce it for commercial purposes target tourists visiting the district by setting up shopfronts near major tourist spots. The rest is made based on the orders placed through certain online platforms and personal connects.
- **Challenges**:
    - Though GI certified, the style has been copied and reproduced by certain large scale textile retailers and sold for much cheaper rates.
    - Since it is a time consuming and strenuous work, most younger women do not practice it

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[8] Census 2011

- There is insufficient income from making these embroidery products that it cannot be the sole source of employment for an individual.
- **Future Scope and Recommendations**:
  - In order to ensure that the community wholly benefits from their products, such practices need to be regulated. TRIFED and the Poompuhar (Tamil Nadu Handicrafts Development Corporation) can support the artisans in securing a stable market for their products.

1.2.2. Investments and key economic drivers

Figure 10 Sector-specific growth of Credit off Take (2013-16) – RBI

Sector-wise Credit Offtake Growth (2013-16)

Agriculture	Industry	Finance	Prof. Services	Trade	Transport
5%	10%	40%	3%	11%	-1%
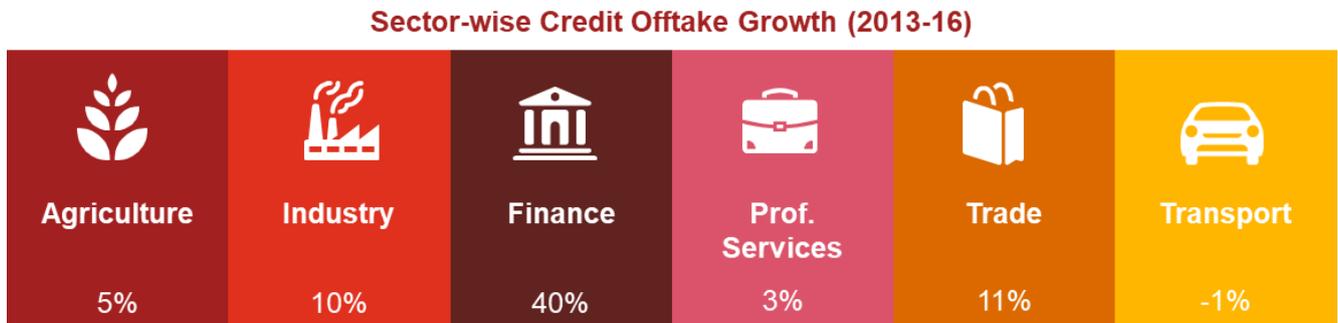
The district has witnessed a growth in credit across most sectors but especially in finance, trade, and industry.

According to the data collected from the RBI, the finance sector has seen the highest credit growth at 40%. The manufacturing industry and trade have also seen a significant growth.

1.3. Labour Market Profile[9]

The overall labourforce participation is 65% and worker population ratio is also 65% - higher than the state average for both indicators. About 70% of workers in the district are casual labourers and 16% are wage employed.

Figure 11 Key Labour Market Indicators[10]
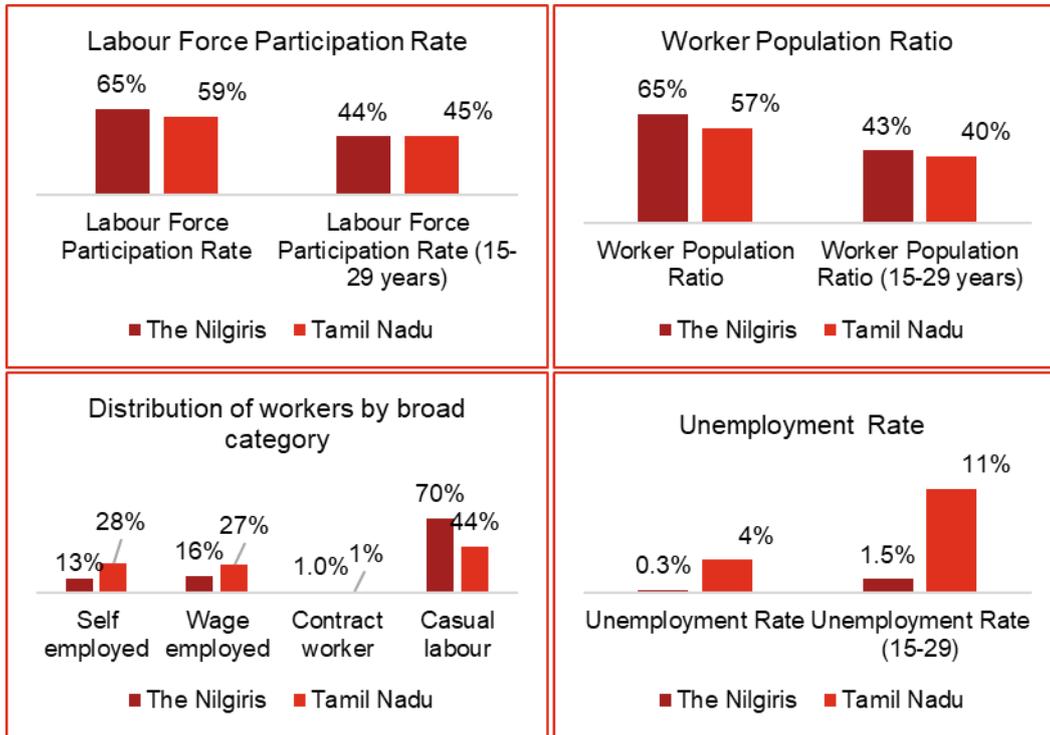
Figure 12 Distribution of Working status by Qualification: District Level Estimates
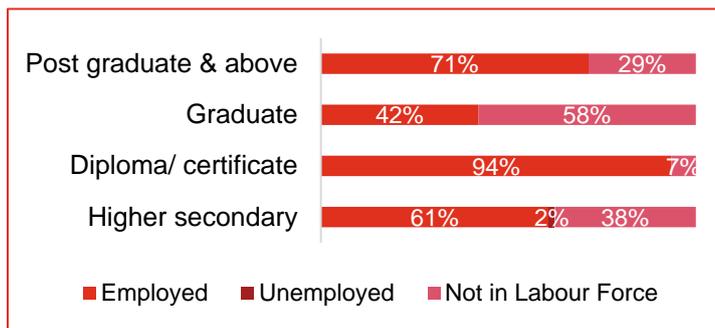
The education-level classification of the district population reveals that a significant population is not in the labour force. Among graduates, 58% are not in the labour force. The youth survey conducted in the district also shows that about 26% of the overall respondents are in neither in employment, nor in education nor in any training. Women in the district have a low tendency to seek employment.

About 56% of the workforce is involved in agriculture and allied activities, 22% in tourism and trade related activities and 7% in construction.

Figure 13 Sector-wise share of Employment

Source: District Level Estimates, EUS, 2013-14, Labour Bureau

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[9] Analysis in this section are based on the District Level Estimates, EUS, 2013-14, Labour Bureau
[10] District Level Estimates, EUS, 2013-14, Labour Bureau

1.4. Education and Skill Development Profile

1.4.1. Education Profile

The Gross Enrolment Ratio at both Primary and Upper Primary are higher than the state averages. The dropout rates however are much higher – 4.7% at the primary level and 2.9% at the upper primary level.

The Nilgiris has 6 ITIs of which one is government run. There are also 3 polytechnics and 6 colleges (4 arts & science colleges and 2 professional education colleges). The famous McGan School of architecture is located here and draws students from across the state.

Figure 14 GER and Drop-out Rates - DISE

Type of Education Institute	No. of Institutions	Enrolment
General Education Colleges	4	9,224
Professional Education Colleges	2	1,618
Polytechnics	3	1,863
ITIs	6	512
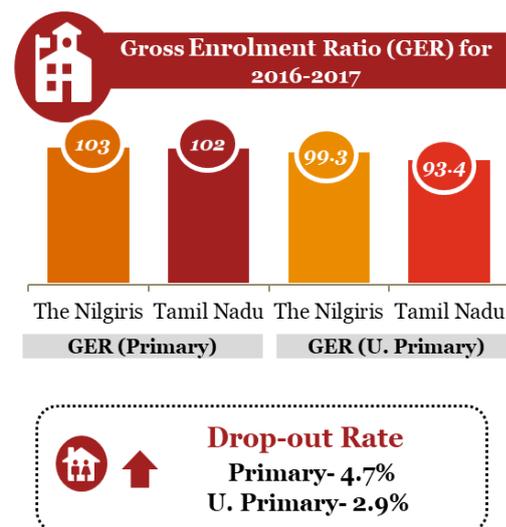
1.4.2. Vocational Education and Skill Development Profile

The skill training infrastructure of the district include skill training centres implementing schemes like TNSDC, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and TNSDC courses.

Under the PMKVY scheme, training institutes offer courses on CCTV and collar panel installation, food processing, agriculture, etc. The skilling courses offered by TNSDC focus on nursing, midwifery, tailoring and accounts.

Table 4 Vocational Training under Short Term Skill Development Programs[11]

Scheme	Sector	Job Role	No. of Training Centres	Actual Intake
Pradhan Mantri Kaushal Vikas Yojana	Electronics and Hardware	Field Technician - Other Home Appliances	1	-
	Beauty and wellness	Beauty Therapist	1	-
	Apparel	Sewing machine operator	1	-
	Logistics	Documentation Assistant	1	-

The long-term skill development programs are predominantly offered through Industrial Training Institutes, which offer one and two year programs in various sectors and trades. Table 5 presents the courses offered through ITI, and the number of such institutes offering each trade/ training for job role.

Table 5 Vocational Training under Long Term Skill Development Programs (ITI)

Sector	Trade Name	ITI Count
Automobiles and Auto Components	215-Mechanic (Motor Vehicle)	3
Capital Goods	037-Instrument Mechanic	1
	212-Welder	2
Construction	206-Carpenter	1
	231-Electrician	3
Electronics & Hardware	232-Wireman	3
	218-Mechanic (Refrigeration and Air-Conditioning)	1
Handicrafts & Carpets	221-Turner	1

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[11] 2017-2018 training year report.

Sector	Trade Name	ITI Count
Infrastructure Equipment	219-Electronics Mechanic	1
IT/ ITeS	242-Computer Operator and Programming Assistant	1
Mining	227-Fitter	6
Textile and Apparel	247-Sewing Technology	1

Figure 15 Proportion Undergone Vocational training 2015-16, MoLE[12]

With respect to vocational training in the district, only 10 persons out of every 1,000 persons in the district had received training on some skills, when compared to 51 in the state as per Employment and unemployment survey 2015-16.

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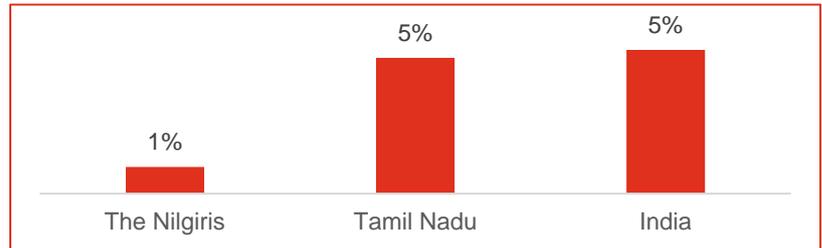
[12] Employment and Unemployment Survey 2015-16, Ministry of Labour and Employment

2. Youth Perspective

In order to understand the youth perspective, a survey was administered across the district. The detailed survey captures the current status of the respondent, their economic and educational background, their preference in employment and skill training.

2.1. Profile of Respondent Youth

A total of 360 youth in the age group of 15-34 years were covered through a structured household survey tool. This covered a sample of three blocks out of the six blocks in the district – Coonoor, Gudalur, Udhagamandalam. 46% of the overall respondents were female and about 56% were from rural areas. The survey has tried to achieve a balanced representation of various socioeconomic and demographic characteristics of the population.

Figure 16 Respondent Profile of Youth Aspiration Survey

Blocks covered	
Coonoor	Gudalur
Udhagamandalam	

360 Respondents

46% Female Respondents

Rural vs Urban

56%	44%

■ Rural ■ Urban

Respondents by Social Category

- General: 1%
- Other Backward Caste (OBC): 37%
- Scheduled Caste (SC): 48%
- Scheduled Tribe (ST): 15%

Age Category Wise Distribution of Respondents

30%	21%	21%	28%

■ 15-19 ■ 20-24 ■ 25-29 ■ 30-34
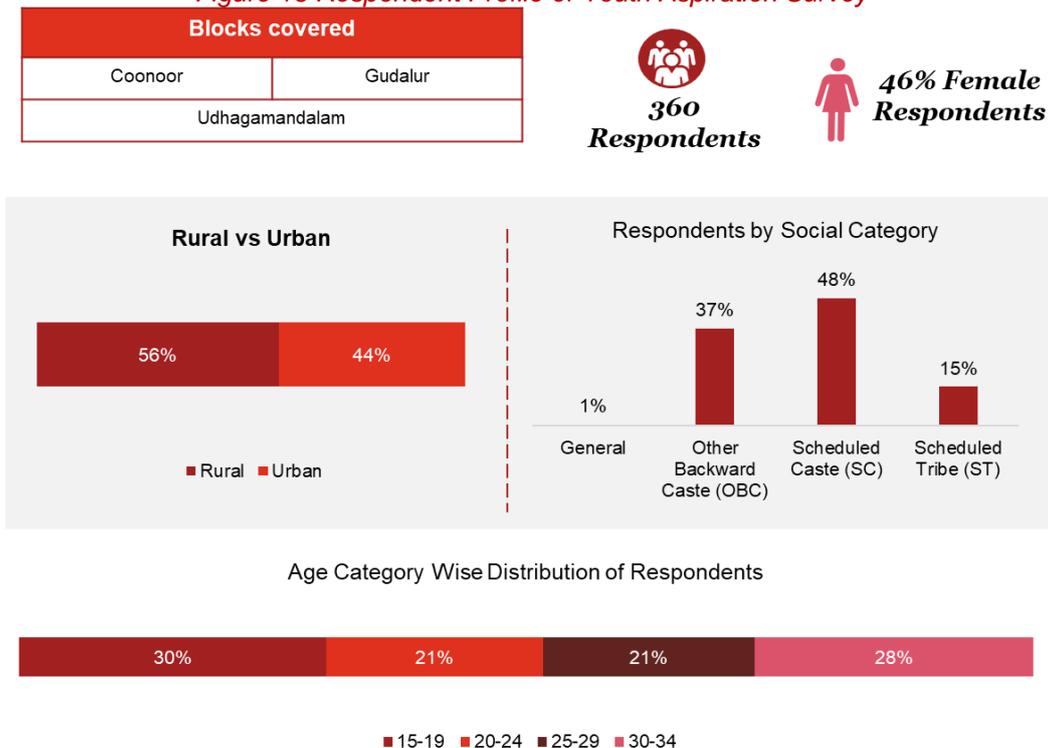
Respondents by Educational Attainment

- Post Graduate: 3%
- Graduate: 15%
- Diploma: 6%
- Higher secondary (Upto Class XII): 31%
- Secondary (Upto Class X): 34%
- Upper primary (Upto Class VIII): 9%
- Primary (Upto Class V): 2%
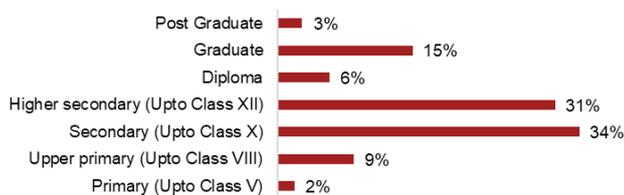
- *74% respondents were from the BPL (below poverty line) category*
- *41% of respondents reported a monthly household expenditure of **not more than Rs. 10,000***

2.2. Youths' Educational and Economic Engagement Status

Figure 17 illustrates the gender wise classification (current status) of the respondents interviewed during the household survey. The female respondents were predominantly part of the NEET category (47%) and 20% were in a wage/salaried employment. Among the male respondents, only 7% belonged to the NEET category; 39% identified as students.

Figure 17 Current Status of Respondent by gender

Figure 17 Current Status of Respondent by gender
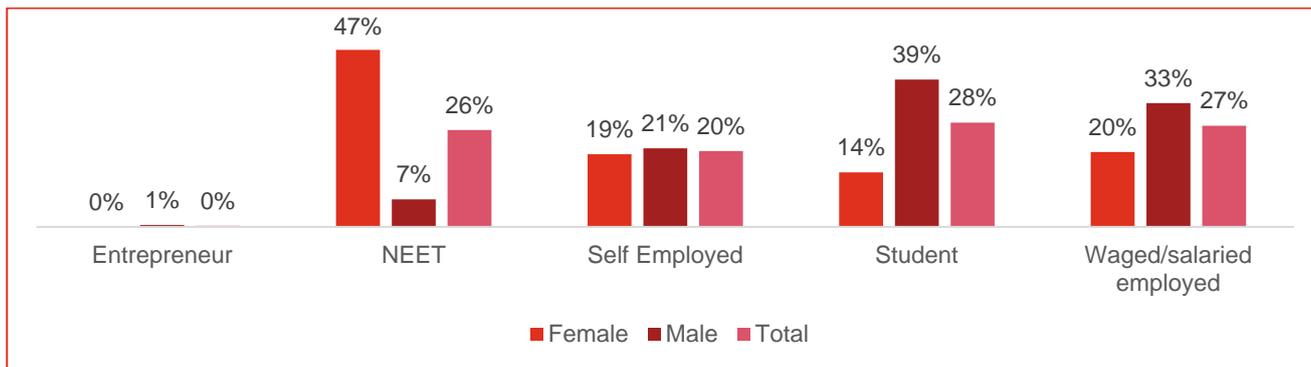
Going by the age of the respondents, 63% of the respondents between 30-34 years of age have opted for self-employment[13]. About 83% in the age group of 15-19 years identify as students.

Figure 18 Current Status of Respondent by Age Category
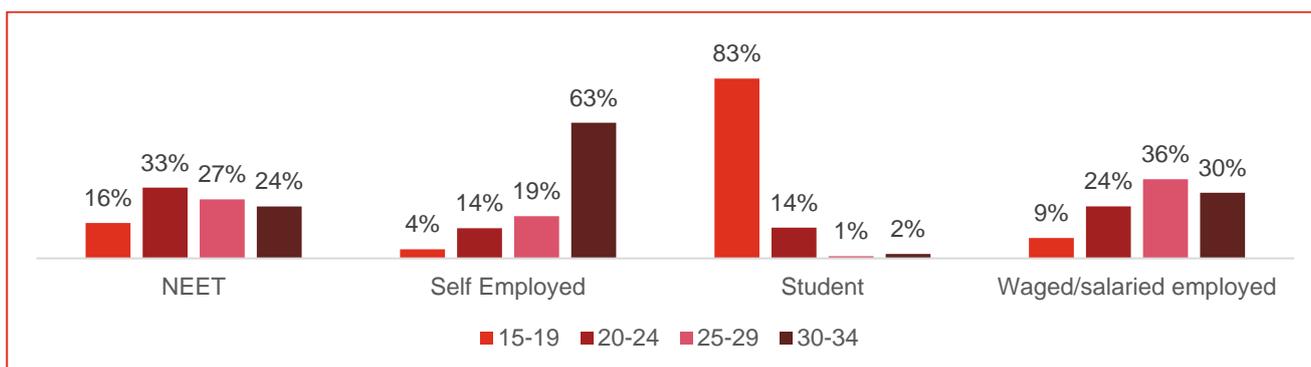
2.3. Economic Engagement of Youth

Only 49% of the respondents are currently engaged in some economic activity and 83% of which, are involved in a work related to their education/training.

As seen in Figure 19, 42% of female respondents reported that they receive an income of INR 5,000-10,000 per month. Among males, 22% received an income between INR 15,000-20,000 per month. As observed in the qualitative study, there is a huge fluctuation in income with respect to the seasons - youth find employment in the tourism activities in the district during the peak summer season; the rest of the year, they take up gig work either within the district or in the neighbouring districts of Erode and Coimbatore.

Figure 19 Distribution of Respondents across Monthly Income Category across gender

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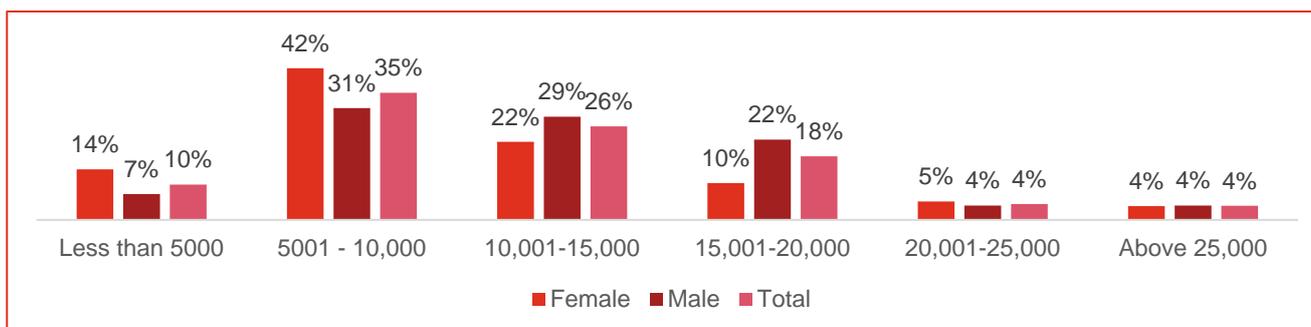
[13] Traditionally self-employment includes both enterprises and engaging in a profession/trade on their own account. However, in this study it has emerged that the youth prefer to be independently engaged in a trade/profession than setting up an enterprise.

The table below gives the employment category of respondents according to their educational qualification. About 53% of diploma holder and 58% of graduates claim to be employed as unskilled worker. This is a reflection of the gig work abundant in the district, especially in tourism and hotel management.

Table 6 Education Qualification of Respondents and Employment Type*

	Primary	Upper Primary	Secondary	Higher secondary	Diploma	Graduate	Post Graduate
Farm Activities	33%	44%	29%	25%	7%	8%	25%
Livestock	0%	0%	1%	5%	-	-	-
Unskilled work (MGNREGA, construction labour, mining, brick kiln, household, etc.)	0%	28%	26%	15%	-	-	-
Salaried Employment (teacher, government official, etc.)	17%	16%	13%	15%	57%	58%	50%
Skilled worker (tailor, mason, electrician, plumber etc.)	17%	12%	29%	23%	29%	17%	25%
Petty Business/Trade/ Manufacturing	17%	0%	13%	10%	7%	8%	25%
Major Business/Trade/ Manufacturing	17%	0%	0%	3%	7%	8%	0%
Others	0%	12%	3%	8%	0%	0%	25%
Number of respondents	6	25	70	60	14	24	4

*Multiple response question

2.4. *Youth under NEET Category*

26% of the total respondents were neither in employment, nor in education nor in any training.

About 47% of the NEET category respondents were females. *Table 7* shows the profile of NEET category respondents based on their duration in the category and their desire to enter the workforce. About 60% of respondents in the category are actively seeking for employment. About 37% of women reported that they have been in the NEET category for more than 5 years. Also, when inquired about the reason for being in NEET category, 39% of women said that unpaid household work takes up most of their time. This indicates a need for change in attitudes towards women employment in the district.

Table 7 NEET Category Respondents

Duration in NEET Category (n=92)				Wish to Work (n=92)			
	Female	Male	Total		Female	Male	Total
Less than 6 months	10%	0%	9%	Yes	54%	93%	60%
6 months- 1 year	5%	21%	8%	Total	42	13	55
1- 2 years	19%	64%	26%	Actively Seeking Work (n=55)			
2- 3 years	8%	7%	8%		Female	Male	Total
3 - 4 years	12%	7%	11%				
4 - 5 years	9%	0%	8%	Yes	48%	100%	60%
More than 5 years	37%	0%	32%	Total	20	13	33

2.5. *Vocational Training Awareness and Experience of Youth*

Only 11% of respondents are aware of government run skill development programmes and only 7 respondents out of 360 have undergone such training.

2.6. Youth Career Aspiration

The youth in the district mostly prefer to be self-employed (37%). Over 31% prefer wage / salaried employment within the public sector.

Figure 20 Career Aspiration of Youth
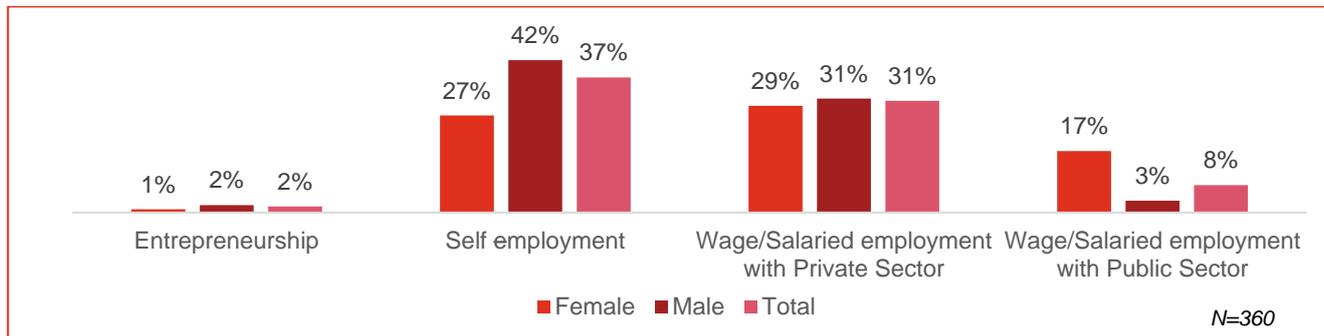
The main factors determining the aspiration of the youth are Salary (wages) / Income (82%), Social Status (24%) and job security (20%). About 25% of the total respondents feel they are completely prepared for requirements for a job. About 25% respondents also feel that the availability of job opportunities in the district is very inadequate. In most cases, the youth in the district migrate to industrial towns for pursuing education and in search of jobs.

Table 8 Career Aspiration - Factors, Preparedness and Availability of Jobs

Factors Determining Aspiration* (n=360)	Responses	Perception of Preparedness for Jobs (n=360)	Responses
Salary (wages) / Income	82%	Completely Prepared	25%
Gender suitable role	6%	Largely Prepared	4%
Social Status	24%	Moderately Prepared	9%
Traditionally Acquired Skills / Family Business	2%	Somewhat prepared	11%
Flexible work arrangements (location, schedule)	2%	Not Prepared	22%
Job Security	20%	**Availability of Job Opportunities (n=360)**	**Responses**
Opportunities for promotion and career development	2%	Neither adequate nor inadequate	26%
Closeness to Residence	6%	Somewhat adequate	5%
		Somewhat inadequate	11%
Retirement Plans	3%	Very inadequate	24%
Safety / Security	10%		
Employer provided benefits and perks	14%		

Multiple response question

As seen in Table 9, **almost 74% of respondents feel that there is no challenge in pursuing their desired career.** About 9% feel it is the lack of sufficient education qualification and 8% said it was due to a low financial strength.

Table 9 Career Aspiration – Challenges in pursuing desired career

Challenges (n=360)	Responses*	Challenges (n=360)	Responses*
Lack of sufficient education qualification	9%	Lack of family support / social acceptance of girls being engaged in economic activity	4%
Unsafe working environment	1%	Lack of work experience	4%
Lack of vocational skills	5%	Low financial strength	8%
Lack of jobs locally	6%	Pressure related to getting married	3%
Lack of guidance / information on appropriate job available for skill levels	7%	No Challenge	74%

Multiple response question, responses may add up to more than 100%

As seen in Table 10, the perception of the youth about the key factors that enhance their employability to their aspired jobs, were the level of their education attainment (65%), work experience (14%). Teamwork (23%), leadership (38%) and communication (30%). **While only 19% of the respondents had already taken steps to meet these requirements, 55% respondents were looking for apprenticeships and 19% were looking to continue education**.

Table 10 Key Requirements to enhance employability and steps to achieve aspirations

Key Requirements to enhance employability* (n=360)			
Requirements	Responses	Requirements	Responses
Basics and soft skills	1%	Performance in Interviews	2%
Certifications of Technical Skill	3%	Relevant work experience in similar position or field	14%
Education attainment (level of education)	65%	Years of Work Experience	13%
Institution of Education / Skill Training	1%		
Key Skills Required for desired job*			
Analytical thinking	17%	Creativity, originality and initiative	22%
Team work	23%	Coordination Skills	17%
Clear communication	30%	Attention to detail	7%
Complex problem-solving	15%	Time management	17%
Leadership	38%	Critical thinking and analysis	15%
Active listening	7%		
New Steps to achieve aspirations*			
Steps	Responses	Steps	Responses
Already Achieved	19%	Apprenticeship / Gathering Work Experience	55%
Vocational/ Skill Training	7%	Continuing Education	19%

Multiple response question

97% of the total respondents stated that they were not interested to take up any gig work.

The median wage expectation is around ₹20,000 per month. Around 34% of the respondents have expectations of monthly income greater than ₹20,000. Male respondents aspired for higher salaries compared to their female counterparts. The figure below shows the salary aspirations with respect to the respondents' current status.

Figure 21 Aspired monthly salary of respondents

	NEET	Self Employed	Student	Salaried
Greater than 40,000	7%	15%	7%	3%
30,001-40,000	4%	22%	12%	6%
20,001-30,000	22%	33%	38%	24%
10,001-20,000	26%	18%	31%	64%
Less than 10,000	5%	6%	4%	2%

■ Less than 10,000 ■ 10,001-20,000 ■ 20,001-30,000 ■ 30,001-40,000 ■ Greater than 40,000
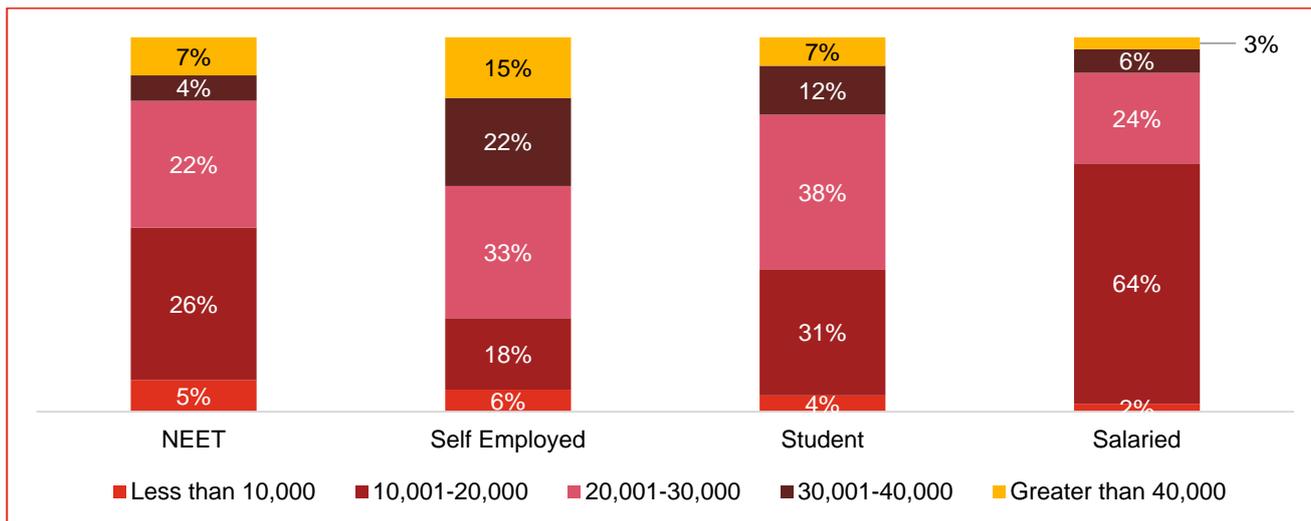
Figure 22 Preference for Work Location[14]

	Female	Male
No, I want job in my Hometown	85%	53%
Within District	28%	56%
Outside District but within Tamil Nadu	11%	39%
Outside India	1%	6%
Outside Tamil Nadu but within India	3%	10%

■ Female ■ Male

N=360
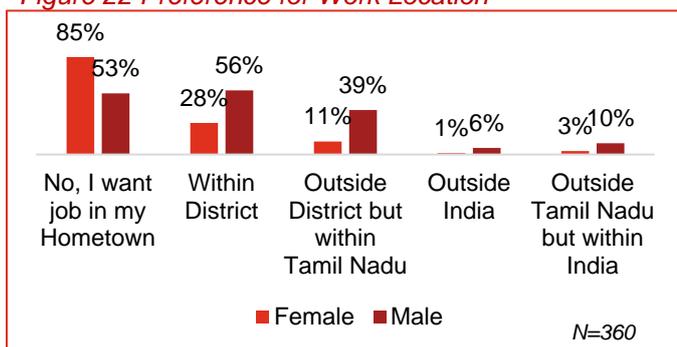
The respondents, mostly female (85%) were mostly unwilling to relocate for a job outside their hometown. About 56% of men wanted a job within the district and 39% were willing to work outside the district but within Tamil Nadu. The qualitative studies revealed that most youth consider the option of moving out Nilgiris for a job, especially to the nearby districts of Coimbatore, Tiruppur and Erode.

Figure 23 Sources for Job Information*

Source	%
Parents and other family members	26%
Friends and Peers	75%
District Employment Office / National Career Services	14%
Newspaper / Other media	35%
Community	7%
Internet and Online Job Portals	18%
School/ University career counselling centres	6%
Others	14%

N=360
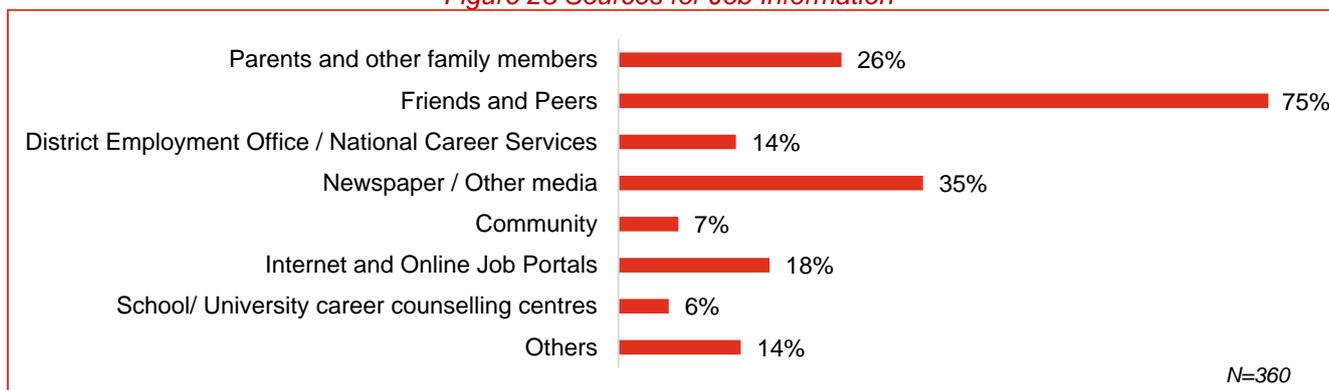
The most important source for the job related information was through friends and peers (75%) and newspaper/media (35%). As gig work is available in the tourism industry that does not require specific skilling, most youth have a networked contact through friends on the need for job roles such as taxi drivers, caterers and local tour guides. 60% of the respondents felt that the counselling services were adequate in meeting their requirements.

The key inputs requested by the respondents from career counselling services include information on relevant vacancies (14%), guidance on applying for jobs (11%) and advice on searching for jobs (66%).

Figure 24 Preference on Counselling Services*

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[14] Multiple Response, Sum may exceed 100%

Placement in educational programmes	2%
Placement for jobs	7%
Guidance on applying for desirable jobs	11%
Guidance on applying for training or educational programmes	3%
Advice on how to look for a job	10%
Information on relevant vacancies	14%

N=360
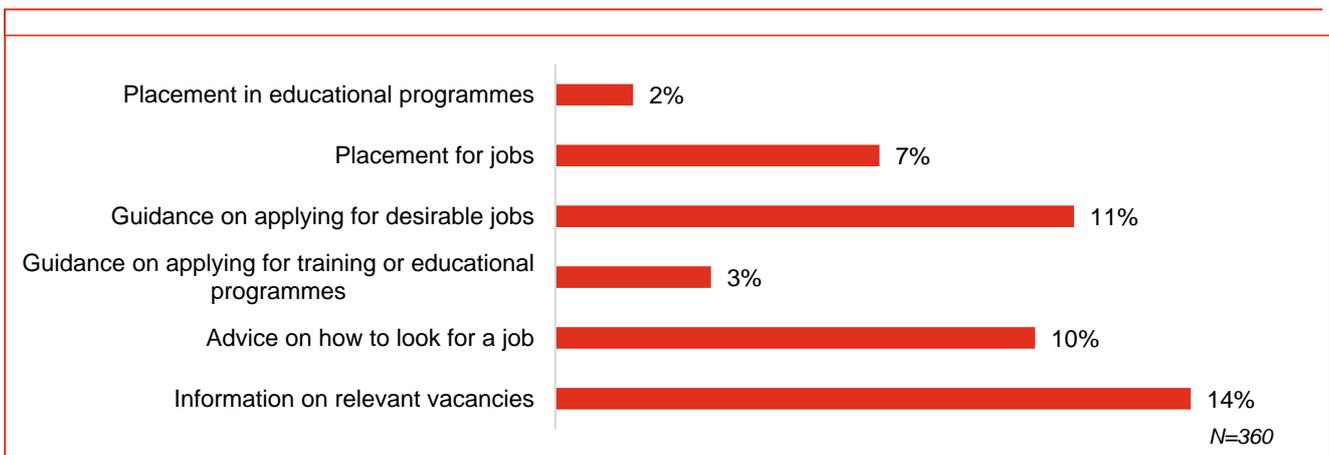
Multiple response question

About 21% of youth aspire to work in the agro-business sector. Other sectors of interest are iron and steel, auto components and construction. 9% of men were also interested in the chemicals sector.

2.7. Skill Training Preferences of Youth

About 58% of the total respondents are interested in undergoing full-time training courses. However, most are interested only in short term certificate courses less than 6 months (46%).

Figure 25 Duration of Skill Training type interested in
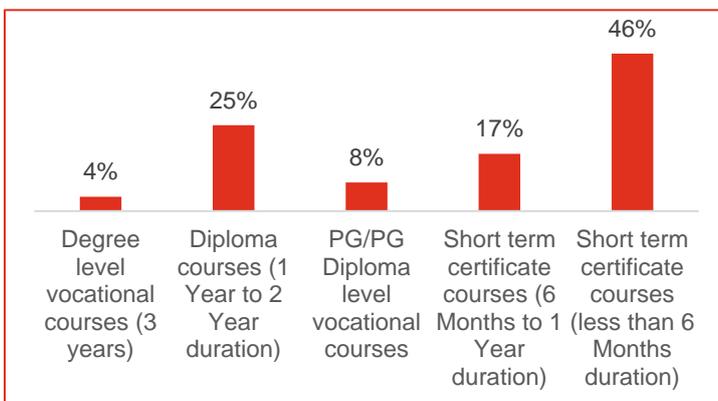
Figure 26 Skill Training type interested in
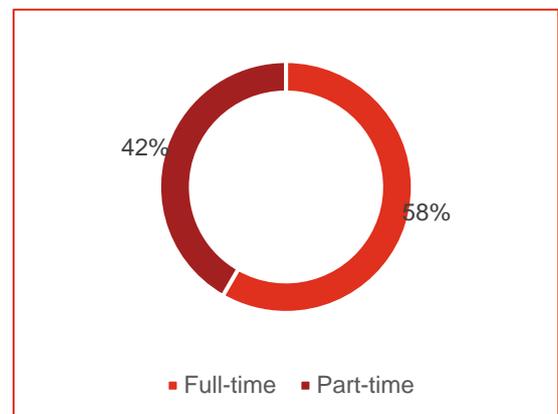
3. Employers' and Other Stakeholders' Perspective

The study covered employers, industrial associations and other key stakeholders to understand the demand side perspectives of skills. The information was collected through both quantitative survey and qualitative approaches including In-depth interviews and focus group discussions.

3.1. Employers' Perspective

The survey covered 26 Industries from 6 sectors. The sector wise coverage of industries is given in Table 11. Majority of industries were from the travel tourism and hospitality sector. Of the overall sample, 38% were small scale industries, 54% were medium industries and 8% were large industries.

Figure 27 Distribution of Industries by Size

Table 11 Sector wise coverage of Industries in Employer Survey

S.No	Sector	Number of Industries Surveyed	S.No	Sector	Number of Industries Surveyed
1.	Agro-business	1	2.	Healthcare Services	3
3.	Education and Skill Development	1	4.	Retail	3
5.	Food Processing	7	6.	Tourism Travel and Hospitality	11

As seen in Table 12, employee reference is the major mode of recruitment (96%). Employers also use local community and media advertisements and manpower agencies for recruiting labourers. The most common challenge faced by employers was candidates' disinterest and attitude (91%), followed by high local wages (75%) and the requirement of physical work (36%).

Table 12 Modes and Challenges in Recruitment Process*

Key Modes of Recruitment (n=26)			Key Challenges faced in Recruitment (n=26)		
S.No	Particulars	%	S.No	Particulars	%
1.	Employee Reference/ Other Referrals	96%	1.	Candidate Disinterest and Attitude	92%
2.	Advertisements in Newspapers	8%	2.	High local wages	92%

*Multiple response question

Figure 28 Average distribution of workers by Sex
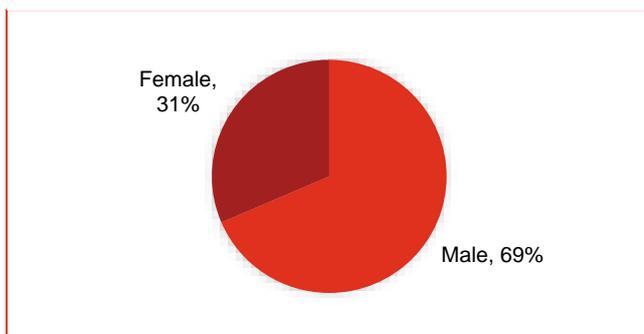
Figure 29 Distribution of workers by Skill Levels
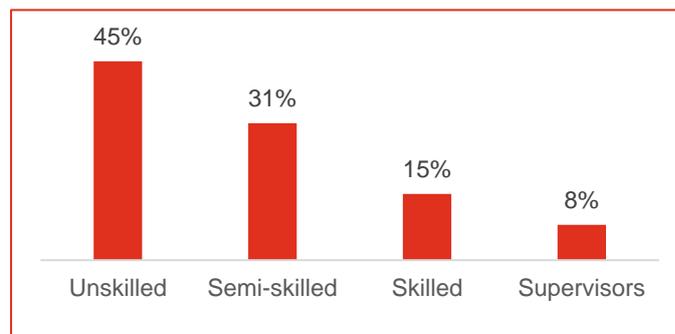
The employers had a majority of male employees – on an average, the enterprises employed 69% males.

Unskilled workers dominated the share of workforce (45%) followed closely by semi-skilled workers (31%). The hospitality industry mostly prefers unskilled workers with low educational attainment for job roles like cleaning,

attendant, cook, etc. The large scale tea plantations have started relying on unskilled migrant workers as the local workforce is uninterested in such jobs.

Figure 30 Key causes of Attrition

Candidate disinterest	88%
Better job opportunities	94%
Lower wage	88%
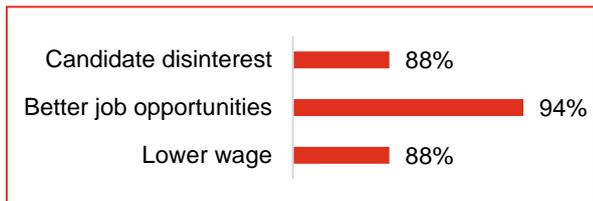
*Multiple response question

Lower wage, search for better job opportunities and candidates' disinterest are the reasons given by most employers for attrition.

Over 71% of the employers feel there is high growth prospects in the industries. About 39% note that the level of technology adoption in the future will be high and 15% have plans to introduce automation. The tea plantations currently work on a low level of mechanization and have opportunities to have better machines that save time.

39% Industries Plan for High technology adoption in future

15% employers plan for introducing Automation
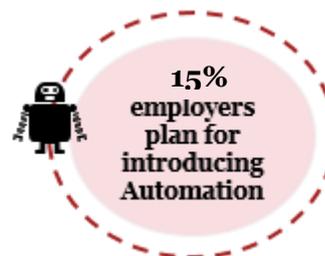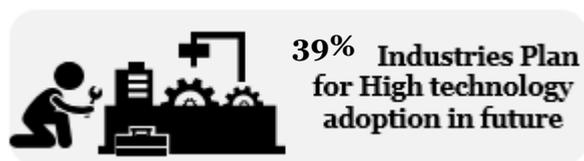
Table 13 Growth Prospects and prospective adoption of technology

Growth Prospects of Industry (n=21)	%	Level of Technology adoption (n=23)	%	Plans to adopt Technology (n=26)	%
High	71%	High	39%	Yes	15%
Medium	29%	Medium	57%	No	85%
		Low	4%		

3.2. Other Stakeholders' Perspective

The study included in-depth interviews of other stakeholders including the departments of Skill Development, Livelihood and Employment and Industrial development related activities, Industrial Associations, Vocational Education and Skill Development institutions among others. A focus group discussion was conducted with 20 stakeholders from various organizations in sectors such as ceramics, cotton, construction, petro products and auto components.

The following were the key findings from the stakeholder consultations and FGD:

Table 14: Qualitative findings in The Nilgiris

S No	Topic	Responses
1.	Awareness of government skill training programs/ jobs/ job melas	• The workforce is not fully aware of skill training programmes. There is also not much interest to get trained on specific skills.
2.	Education- schools, ITI/ Polytechnics/ Engineering colleges in the district	• Candidates usually move out of the district for education. • Most candidates in the district do not prefer a diploma or ITI education • The enrolment levels in ITIs is only three fourth the capacity. Low student attendance and higher levels of dropouts has also been a major issue.
3.	Candidate Attitudes/ Abilities	• Given that most employment prospects available in the District is only gig work, local youth have a tendency to keep switching jobs. • Candidates prefer to work in the informal sector.
4.	Migrant workers	• Migrant workers are majorly employed in tea estates for unskilled jobs such as tea plucking and pruning. • Skilling in these trades is necessary as the quality of tea produced is affected by bad pruning and plucking practices.
5.	Skill Gaps	• There is a need for skilled persons in the tourism and travel management industry. Jobs like attendants, taxi drivers and guides will be in great demand.

4. Skill Gap Analysis

4.1. Skill Gap Assessment - Incremental Demand[15] for Skilled & Semi Skilled Workforce

In the next 6 years, Nilgiris will see a demand for about 29,000 workers. Major sectors that will drive the demand are manufacturing, agriculture and allied activities, transportation and real estate.

Table 15 Sector wise Incremental Demand for Skilled and Semi Semi-Skilled Workers between 2019 and 2025

Sectors	Incremental Demand for Skilled Workers			Incremental Demand for Semi Skilled Workers			Total Incremental Demand
	2019-21	2022-25	Total	2019-21	2022-25	Total	Total
Agriculture	28	38	66	196	263	459	524
Allied Activities	537	752	1,289	3,759	5,265	9,024	10,313
Mining and quarrying	-	-	-	-	-	-	-
Manufacturing	924	1,380	2,304	1,847	2,760	4,607	6,911
Electricity, gas, water supply and other utility services	-	-	-	-	-	-	-
Construction	141	202	344	354	506	859	1,203
Trade & Repair Services	122	171	294	423	593	1,016	1,310
Hotels and restaurants	84	118	202	163	228	390	592
Transportation and storage;	237	338	575	569	811	1,380	1,954
Communication and services related to broadcasting	196	298	494	98	149	247	741
Financial and insurance activities	283	435	718	142	217	359	1,078
Real estate, ownership of dwelling and business services	224	349	573	560	873	1,433	2,006
Public Administration	-	-	-	-	-	-	-
Education; Human health & Social Work Activities	311	434	745	249	347	596	1,340
Arts, entertainment and recreation	46	63	109	37	50	87	195
Other Services	73	100	172	58	80	138	310
Total Demand	3,358	4,888	8,247	8,575	12,311	20,886	29,133
Total Supply	173	230	403	369	492	861	1,264
Total Skill Gap	3,186	4,658	7,844	8,206	11,819	20,025	27,869

Mostly owing to the negative population growth and the lack of sufficient training providers within the district, there would be a demand for about 28,000 workers in the next six years. The aging population also increases the need for more health care professionals. Almost 67% of the manufacturing industries in Nilgiris is related to tea processing. This industry has a huge presence of migrant workers and hence focused skill training would be required.

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[15] Incremental Demand Estimates the additional stock of workforce that are to be created given the expected Economic Conditions in the period of study. This may help in estimating requirement for fresh trainings.

5. District Action Plan and Recommendations

5.1. Key Findings and Inferences

Some major findings from the study are as follows:

- **Women Employment:** About 37% of women reported that they have been in the NEET category for more than 5 years. Also, when inquired about the reason for being in NEET category, 39% of women said that unpaid household work takes up most of their time. This indicates a need for change in attitudes towards women employment in the district.

- **Gig work:** The tourism and travel industry that is well developed in the district majorly provides only gig work – short term work for certain periods in a year. Even graduates and diploma holders prefer these jobs as they are easily available and have the opportunity for good earnings during the peak season. However, the youth survey shows that most youth are not interested in it.

- **Aging Population:** The Decadal growth rate of the population in the district was -4% between 2001 and 2011, compared to 16% at state level. The population is set to get much older in 2026 with a median age of around 33 years, with 48% of the population in the age group of 30-59 years.

5.2. District Action Plan

The district level training projects below suggests the potential areas for skill development interventions and job opportunities over the immediate future. It identifies the potential job roles mapped with NSQF linked QPs and the potential of employment opportunities over the next six years with a focus on youth. The job roles have been shortlisted based on the analysis of findings from the skill gap analysis, secondary research, youth aspiration survey, enterprise survey, district level consultations and discussions with industry associations.

The below table presents the summary of training projects for The Nilgiris:

Table 16 Summary of Trainings

S No	Sector	Trades	Target (Persons)	Budget (₹)
1.	Tourism and Hospitality	• Billing Executive • Chef-de-partie • Trekking Guide • Tour Guide • Assistant Catering Manager • Assistant Facility Manager • Counter Sale Executive • Duty Manager • Facility Store Keeper • Front Office Associate • Guest House Caretaker • Guest Relations Manager • Kitchen Helper • Laundry Machine Operator • Meeting, Conference and Event Planner	5,100	₹9.2 Crores
2.	Agriculture and allied	• Non-Timber Forest Produce Collector • Medicinal Plants Grower • Tea Plantation Worker • Mushroom Cultivator • Dairy farming • Floriculturist	2,000	₹2.13 Crores

S No	Sector	Trades	Target (Persons)	Budget (₹)
3.	Healthcare	• General Duty Assistant • Blood Bank Technician • Cardiac Care Technician • Diabetes Educator • Emergency Medical Technician - Basic • Medical Records & health Information Technician	1,000	₹2.39 Crores
4.	Domestic Appliance Services	• Helper Electrician • Plumber (General) • Solar Domestic Water Heater Technician • Field Technician – AC • Field Technician – Refrigerator • Field Technician - Washing Machine • Field Technician - Other Home Appliances	1,300	₹2.9 Crores
5.	Tea Processing	• Packaging Technician • Tea Plantation worker • Tea leaves harvester (upskilling)	4,300	₹8.17 Crores
		Total	13,700	₹ 24.78 Crore

Note:

1. The intended target groups are different from the eligibility criteria prescribed as part of the Qualification Pack. Target Group refers to the preferred set of youth who stakeholders have identified are most likely to benefit from the training. This could come from the Aspirations expressed in the Quantitative Survey, feedback from Industry and Govt. Stakeholders. For instance, though a training in handicrafts might require only 5th grade as an eligibility- criteria, the target group would be rural women in a cluster. TNSDC and the TSPs can continue to use the minimum criteria as mentioned in the Qualification Pack; however, qualifications that may constrain an interest-group may appropriately considered on a case- to-case basis (as approved by TNSDC).

2. The QP NOS reference numbers and the training hours have been taken as per the latest QP NOS compilation (as on 17th October 2019). However, in the same compilation, some job roles do not have training hours mentioned. In such cases, we have taken the average training hours for the sector and NSQF level within the sector and applied

those as notional hours. We have also used insights from field consultations to arrive at training hour estimates which to reflect the market requirements.

3. An attempt was made to map each proposed job role with a QP NOS reference number. In the cases where accurate mapping has not been possible, we have mapped the job role with the nearest QP NOS reference number. In cases where we have proposed new job roles, we have indicated that a QP NOS reference is to be designed for the same.

4. The Cost of Training has been calculated using the following method: Each job role has training hours, training target (persons), and a cost category. The cost category has been determined by the National Skills Qualification Framework (NSQF) with respect to the level of capital expenditure and operational expenditure for imparting the course aligned to that specific job role. Therefore, each cost category corresponds to a particular cost norm calculated per trainee per hour. The calculations have been done as per the Government order (H-22011/2/2014-SDE-III) issued by MSDE on 4th January 2019. The categories are defined as follows:

- INR 42.40 for Category-I
- INR 36.30 for Category -II
- INR 30.30 for Category-III

The Cost of training in the project shelves represents the calculation of: (training target × training hours × per hour cost) + (training target × number of days of training × INR 100).

Where:

Number of days of training = training hours / 8

Transportation costs per trainee per day = INR 100

To the figures arising from the above formula, the training and assessment costs (INR 1,000 per trainee × training target for the whole project) has also been added. The total training cost for each project arrived through such a process has been added to the summary table above.

The training projects are described below:

Table 17 Training Project 1: Tourism and Hospitality

Name of the Project: Training in Tourism and Hospitality Sector							
Key Economic Drivers:							
• Tourism and hospitality is a major sector in The Nilgiris as the district is a popular vacation getaway within and outside the state. • The scenic locations around the district have also attracted interest in destination weddings.							
Key Partners: Hotels in the district, local colleges and it is							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training (hours)**	**Cost Category**	**Target Group**	**Training Target**	**Cost of Training**
Billing Executive	4	THC/Q5801	390	2	Graduates	200	0.39 Crores
Chef-de-partie	6	THC/Q0404	285	1	8th pass	300	₹0.48 Crores
Tour Guide	4	THC/Q4502	280	3	10th pass	500	₹0.6 Crores
Taxi driver	4	ASC/Q9705	480	1	10th pass	800	₹2.11 Crores
Assistant Catering Manager	6	THC/Q5901	475	2	12th pass	500	₹1.17 Crores
Front Office Associate	4	THC/Q0102	280	3	12th pass	800	₹0.96 Crores
Guest House Caretaker	5	THC/Q0501	370	2	10th pass	400	₹0.73 Crores
Guest Relations Manager	6	THC/Q0108	350	2	12th pass	400	₹0.69 Crores
Laundry Machine Operator	4	THC/Q0205	240	2	5th pass	500	₹0.59 Crores
Photography and Editing	4	MES/Q1401	240	2	12th pass	500	₹0.59 Crores
Meeting, Conference and Event Planner	5	THC/Q4401	500	3	Diploma	200	₹0.39 Crores
			Total			5,100	₹ 8.69 Crore
		Total Assessment and Certification cost (₹ 1,000 per candidate)					₹ 0.51 crore
		Total Cost					₹9.2 Crores
Key Considerations: • Local employers can provide internships • Language and other soft skills can also be imparted along with these trainings							

Table 18 Training Project 2: Agriculture and allied

Name of the Project: Agriculture and allied sector training							
Key Economic Drivers:							
• There is huge scope for improving the essential oil cluster. For this, the necessary plants should be cultivated.							
Key Partners: Dept. of Horticulture							
Job Roles:	**NSQF Level**	**NSQF Codes**	**Duration of Training**	**Cost Category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**

Non Timber Forest Produce Collector	3	AGR/Q 6102	200 hours	3	5th Class Pass	200	₹0.18 Crores
Floriculturist	4	AGR/Q0701	200 hours	2	5th Class Pass	500	₹0.49 Crores
Medicinal Plants Grower	4	AGR/Q0901	200 hours	2	Primary education	500	₹0.49 Crores
Tea Plantation Worker	2	AGR/Q0502	200 hours	2	5th Class Pass	300	₹0.3 Crores
Mushroom Cultivator	4	AGR/Q7803	200 hours	2	5th Class Pass	500	₹0.49 Crores
			Total			**2,000**	₹ 1.93 Crores
			Total Assessment and Certification cost (₹ 1,000 per candidate)				₹ 0.20 crores
			Total Cost				₹2.13 Crores

Key Considerations:
- The Dept. of horticulture's support can be sought in conducting these trainings.

Table 19 Training Project 3: Healthcare

Name of the Project: Training in Healthcare Sector

Key Economic Drivers:
- Healthcare sector has scope for young men and women, and career mobility as well

Key Partners: Hospitals, Nursing Colleges

Job Roles:	NSQF Level	NSQF Code	Duration of Training (hours)	Cost Category	Target Group	Training Target	Cost of Training
General Duty Assistant	4	HSS/Q5101	240	2	8th pass/ 10th pass	200	₹0.12 Crores
Blood Bank Technician	4	HSS/Q2801	1,000	1	12th pass	100	₹0.55 Crores
Cardiac Care Technician	4	HSS/Q0101	840	1	12th pass	200	₹0.47 Crores
Diabetes Educator	4	HSS/Q8701	240	2	12th pass	100	₹0.24 Crores
Emergency Medical Technician - Basic	4	HSS/Q2301	240	1	12th pass	200	₹0.27 Crores
Medical Records & health Information Technician	4	HSS/Q5501	900	1	12th pass	200	₹0.66 Crores
	Total					1000	₹ 2.28 Crores
	Total Assessment and Certification cost (₹ 1,000 per candidate)						₹ 0.10 crores
	Total Cost						₹2.39 Crores

Key Considerations:
- Residential training and part-time training modes should be explored to allow women of all backgrounds to attend

*-Job roles do not have training hours/NSQF code mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours. In some cases, insights from consultations with stakeholders are also considered

Table 20 Training Project 4: Domestic Appliance Service

Name of the Project: Domestic Appliance Service							
Key Economic Drivers:							
• During the peak tourist season, there is a need for providing basic services in the hotels and tourist places in the job roles mentioned below.							
Job Roles:	**NSQF Level**	**NSQF Codes**	**Duration of Training**	**Cost Category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Helper Electrician	2	CON/Q0601	350 hours	1		500	₹0.97 Crores
Plumber (General)	3	PSC/Q0104	410 hours	1		500	₹1.13 Crores
Field Technician – Refrigerator	4	ELE/Q3103	480 hours	1		100	₹0.27 Crores
Field Technician - Washing Machine	4	ELE/Q3106	480 hours	3		100	₹0.21 Crores
Field Technician - Other Home Appliances	4	ELE/Q3104	480 hours	3		100	₹0.21 Crores
	Total					**1,300**	**₹ 2.7 crore**
	Total Assessment and Certification cost (₹ 1,000 per candidate)						₹ 0.13 crores
	Total Cost						₹ 2.9 crores

Table 21 Training Project 5: Tea Processing

Name of the Project: Tea Processing							
Key Economic Drivers:							
• Nilgiris has over 250 tea industries. • The district produces different kinds of teas like the oolong and white teas which can only be grown in the district.							
Key Partners: Tea Board, INDCOSERVE, IIPM Bangalore							
Job Roles:	**NSQF Level**	**NSQF Codes**	**Duration of Training**	**Cost category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Packaging Technician	5	FIC/Q7001	300 hours	1	ITI/ Diploma graduates	700	₹1.16 Crores
Tea Taster*	2	AGR / N0511	400 hours	1	ITI/ Diploma graduates	600	₹1.32 Crores
Quality Controller*	2	AGR / N0511	400 hours	1	ITI/ Diploma graduates	1,000	₹2.2 Crores
Other related jobs in tea processing*	2	AGR / N0511	300 hours	1	ITI/ Diploma graduates	2,000	₹3.31 Crores
Total						**4,300**	**₹ 7.74 Crores**
Total Assessment and Certification cost (₹ 1,000 per candidate)							₹ 0.43 crores
Total Cost							₹8.17 Crores
Key Considerations: • The Tea Board already provides trainings to large-scale tea estates. • There are currently no NSQF categories for tea tasting and quality control in tea processing. These can be developed with inputs from other institutes like the IIPM Bangalore which provide similar trainings.							

-Job roles do not have training hours/NSQF code mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours. In some cases, insights from consultations with stakeholders are also considered

5.3. Key Recommendations

Recommendation on key interventions that needs to be taken up in order to foster the participation of youth in the economy are as follows:

Developing QP/NOS for Tea Tasting:
Tea Tasting is an important component of tea manufacturing. The process helps in understanding and improving the quality of the tea and is an expert skill to be acquired. Only 5 institutes across the country offer a diploma or certificate course in tea tasting. Currently there are no QP/NOS present for tea tasting. With the approval of the NSDA, appropriate QP/NOS should be developed for this job role under the food processing sector.

Promotion of Cultivation of herbs and other Medicinal Plants:
The temperature in Nilgiris is ideal for the cultivation of plants like thyme, rosemary, eucalyptus, lemon tree and other plants used in the extraction of essential oils and medicines. There are a few private sector companies like Synthite Industries and a TAMPCOL farm in the district that focus on medicinal plant cultivation. However, the essential oils cluster that was set up has not been able to successfully function as the number of farmers cultivating these are not sufficient. In collaboration with the Department of Horticulture, the cultivation of these crops needs to be promoted.

Identifying and establishing clusters of small scale tea growers:
The large scale tea plantations have workers trained in pruning and plucking practices and the adequate machinery. However, there are about 60,000 small scale tea farmers alone and several of them have stopped cultivation because they are unable to afford the labour and do not have access to machinery for mechanised farming. Clusters of small scale tea growers can be formed along with a common facilities centre (CFC) which houses the required machinery that can be borrowed and used on these farms.

Better marketing and visibility to traditional handicrafts:
The Toda embroidery has a GI tag but is still being copied, manufactured and sold by large scale textile units in the country. In order to ensure that the community wholly benefits from their products, such practices need to be regulated. TRIFED and the Poompuhar (Tamil Nadu Handicrafts Development Corporation) can support the artisans in securing a stable market for their products.

Appendix

A.1 Methodology for Block Selection in Youth Aspiration Survey

Sampling Design for Youth Survey

A total of 360 youth were surveyed in the District, which included youth in both self-employment and wage-employment, unemployed youth, youth on education system, and youth under NEET category to get a balanced representation of various socioeconomic and demographic characteristics of the population.

1. Students from educational and training institutions:
The list of General arts/science/commerce colleges, engineering colleges, polytechnic colleges and Industrial Training Institutions was obtained. A list of educational institutions was randomly sampled from the list. Of the selected institutions, a list of randomly selected students were interviewed.

2. Household Level Survey:
In the selected blocks, few villages and wards were randomly selected. After consultation with the head of the village/ward, a sample of households was selected.

3. Self – Employed Youth:
To cover Self – Employed Youth in the sample, a roster of beneficiaries from the Pradhan Mantri Employment Generation Programme (PMEGP) shall be randomly selected from the list which will be obtained from the concerned authority at the District level.

4. Employed in the informal sector:
The youth from unorganized sector were identified at the cluster-level after obtaining and examining the list of enterprises that are not registered and those workers were doing job-work type of activities

Selection of Blocks

The block selection methodology involved the identification of blocks by categorizing them into High development, Medium development and Low development. The adjacent picture shows the blocks in The Nilgiris selected for the survey. The methodology is explained below:

To categorize blocks, the following data points were used.
  1. Count of MSME Clusters (based on DC-MSME Report)
2. Number of SIDCO Industrial Estates
3. Number of SIPCOT Industrial Estates
4. Credit Outstanding, 2017-18 at Centre-level (Annual Data published by the Reserve Bank of India)

The following weights were assigned post award of marks:
1. MSME Cluster – 25%
2. SIDCO Cluster – 25%
3. SIPCOT Industrial Estate – 5%
4. Annual Centre-level Credit Data – 45%

Based on the above weights, the total score of each block was calculated. The total score was capped at 100. To classify the

Figure 31: Blocks Selected for Survey in The Nilgiris

block as High/Medium/Low, the total score was converted into percentile values and categorized into three groups – 0-33.33th percentile values, 33.33 to 66.67 percentile value and 66.67 to 100 percentile values. The percentile values are calculated with respect to each district as the base.
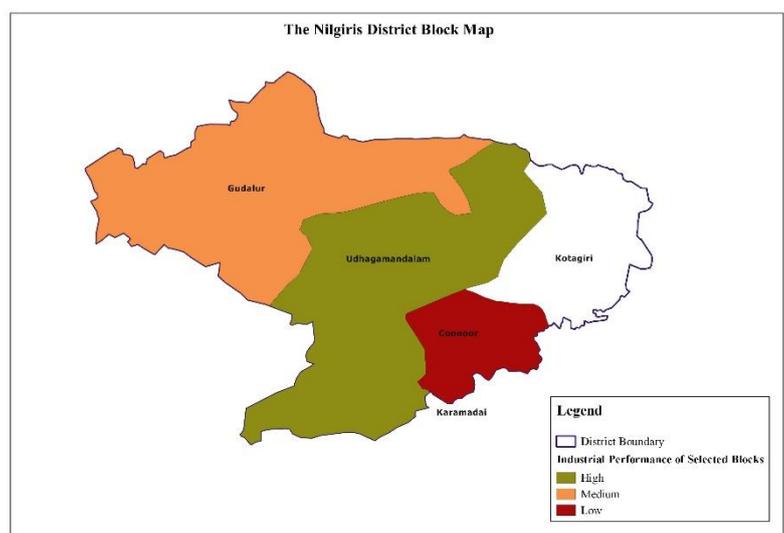
Based on the percentile classification obtained, blocks were classified as follows:
- **0 to 33.33 percentile value: Low**
- **33.33 to 66.67 percentile value: Medium**
- **66.67 to 100 percentile values: High**

Three selected blocks were-

High-Udhagamandalam,
Medium- Gudalur and
Low- Coonoor

A.2 Methodology for Present and Future Labour Demand – Supply and Gap Estimation

Demand Estimation

We adopted employment elasticity approach to forecast the labour demand. Employment elasticity is the measure of percentage change in employment associated with one percentage change in economic growth. The employment elasticity approach indicates the ability of an economy to generate employment opportunities. We estimated sector specific employment elasticity using historical data and assumed it to remain constant in the near future. If the estimated sector specific elasticities at district level varied significantly with national and state level estimates, we rationalized the estimated elasticities based on national and state level trends. Automation and sector specific investments are other factors considered before arriving at the final labour demand estimates in different sectors. While some jobs may become obsolete with the technological advancement, new opportunities will arise for professionals who understand technology. Therefore, demand estimates were further revised based on employer consultation. The flowchart below explains the step involved:

Figure 32: Steps in Demand Estimation

E1 = Employment in i-th sector in Year 2000-01
E2 = Employment in i-th sector in Year 2010-11
ΔE = Annual Growth Rate of Employment in i-th sector
$\Delta E = [(E2/E1)^{(1/10)} - 1] \times 100$
Source: Census 2000-01, 2010-11

G1 = Gross Value Added in i-th sector in Year 2000-01
G2 = Gross Value Added in i-th sector in Year 2010-11
ΔG = Annual Growth Rate of GVA in i-th sector
$\Delta G = [(G2/G1)^{(1/10)} - 1] \times 100$
Source: Department of Economics & Statistics

e = Employment Elasticity in the i-th sector in the Period 2000-10 = $\Delta E/\Delta G$
ΔG^* = Projected Annual Gross Value Added growth in i-th sector
ΔE^* = Projected Annual Growth Rate of Employment in i-th sector.
$\Delta E^* = \Delta G^* \times e$

LD^n = Projected Labour Demand in i-th sector, n Years after 2010-11
$LD^n = E2 \times (1 + \Delta E^*)^n$
Labour Demand is estimated for the period 2019-25.

Supply Estimation

We estimated the average incremental supply of labour for the period 2011-16 and assume it to remain constant for the period of 2019-25. Although the population (15 & above) is increasing, the labour force participation is decreasing in the state[16]. The labour force participation rate may continue to follow the decreasing trend, especially for the age category 15-29 years, primarily because of increasing economic well-being, high educational aspiration and higher salary expectations. The flowchart below explains the step involved in supply estimation:

Figure 33: Steps in Supply Estimation

|				
P1, P2 ……., P6 refers to projected population (15 & Above) for the year 2011-16.	L1, L2 ……, L6 refers to Labour Force Participation Rate (15 & Above) for the period of 2011-16.	P1 × L1, P2 × L2 ……., P6 ×L6 refers to Projected Labour Force for the 2011-16.	I1, I2 ……, I6 refers to Incremental Supply of Labour for the period 2011-16. I1 = (P2 × L2) – (P1 × L1)	Average Incremental Supply of Labour = (I1 + I2 + I3 + I4 + I5 + I6)/6
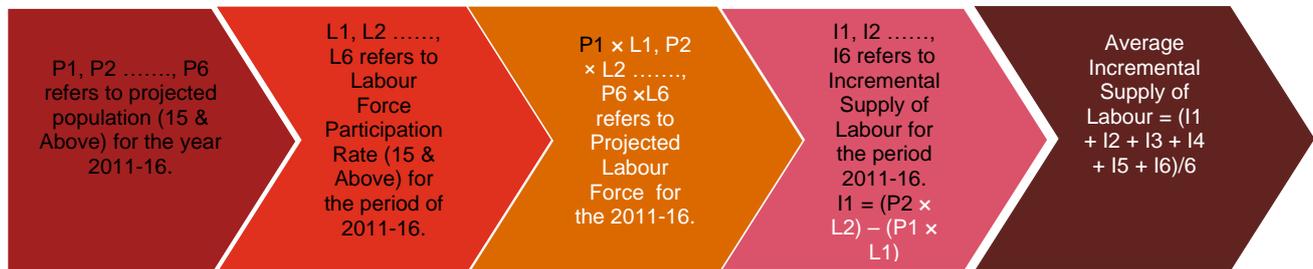
Workers are then segmented into 3 broad Skill groups based on the following criteria–

1. **Unskilled**: Illiterate, Less than five years of schooling, 5-10 years of schooling & no Vocational training,
2. **Semi-Skilled**: 5-10 years of schooling & some Vocational training, Secondary/Higher Secondary passed & no Vocational training, Secondary/Higher Secondary passed & some Vocational training;
3. **Skilled**: Graduate & no Vocational training, Graduate & some Vocational training and Technical Graduates

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[16] Report on Employment-Unemployment Survey, 2011-12, 2012-13, 2013-14, 2015-16 & 2017-18.

A.3 List of Stakeholders

Table 22: List of Stakeholders

S.No	Stakeholder	Category
1.	District Industries Centre- General Manager	Govt. official
2.	District Assistant Director, District Skills Department	Govt. official
3.	District Employment Officer	Govt. official
4.	INDCOSERVE Managing Director	Govt. official
5.	Tea Board	Govt. official
6.	Coonoor Tea Trade Association	Industry Association
7.	Nilgiri Adhivasi Welfare Association	Industry Association
8.	Nilgiri Taxi Drivers' Association	Industry Association
9.	Sterling Hotel	Industry
10.	Treebo Residency	Industry
11.	Government ITI, Coonoor	Training Service Provider
12.	Centre for Tribal and Rural Development Trust (CTRD Trust)	Industry
13.	Ashok Kumar Tea Factory	Industry
14.	Kairbetta Estates Syndicate	Industry
15.	Vijaya Hospital	Industry
16.	Hotel Khems	Industry
17.	Fortune Resort Sullivan Court	Industry
18.	Sree Sakthi Tea Industries	Industry
19.	Ooty Chocolates	Industry
20.	Benchmark Tea Factory	Industry
21.	Hotel Silver Oak & Silver Spoon Non-Veg- Restraunt	Industry
22.	Golden Dew Tea Factory	Industry
23.	Darmona Tea Industries	Industry
24.	Honey Pet Jars	Industry
25.	Sri R. Geetha Agencies	Industry
26.	Hotel Alagapuri	Industry
27.	Hotel Nahar Nilgiris -1 & 2	Industry
28.	Nilgiri Petroleum	Industry
29.	N.N.Naidu & Sons	Industry
30.	Sri Ramakrishna Diagnosis Lab	Industry
31.	Hotel Durga	Industry
32.	Meadows Residency	Industry
33.	Hotel Preethi Classic Towers	Industry
34.	Grange Hotel	Industry
35.	S.M Hospital	Industry
36.	Glanton Manor	Industry
37.	The Planter's Paradise & The Paradise	Industry