Skilling for the Future

Skill Gap Assessment & Action Plan for Tamil Nadu

District Skill Development Plan for Tirunelveli

November 2019

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Disclaimer

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List of Abbreviations

S.No	Abbreviation	Expanded Form
1.	ASER	Annual Status of Education Report
2.	ASI	Annual Survey of Indusustries
3.	BFSI	Banking Financial Services and Insurance Sector
4.	BPL	Below Poverty Line
5.	DC MSME	Development Commissioner, Ministry of Medium, Small and Micro Enterprises
6.	DDU-SKY	Deen Dhayal Upadhyaya Grameen Kaushalya Yojana
7.	DES	Directorate of Economics and Statistics
8.	DIC	District Industries Center
9.	GDDP	Gross District Domestic Product
10.	GoTN	Govt. of Tamil Nadu
11.	GSDP	Gross State Domestic Product
12.	GSVA / GVA	Gross State Value Added / Gross Value Added
13.	ITI	Industrial Training Institute
14.	IT-ITES	Information Technology and Information Technology Enabled Services
15.	LFPR	Labour Force Participation Rate
16.	Manuf.	Manufacturing
17.	NEET	Not in Education, Employment or Training
18.	NIC	National Industrial Classification
19.	NSDA	National Skill Development Agency
20.	NSDC	National Skill Development Corporation
21.	NSQF	National Skills Qualification Framework
22.	NULM	National Urban Livelihood Mission
23.	PMKVY	Pradhan Mantri Kaushal Vikas Yojana
24.	PSU	Public Sector Undertaking
25.	Pub. Admin.	Public Administration (GDP Sector)
26.	QP-NOS	Qualification Pack – National Occupational Standards
27.	SIPCOT	State Industries Promotion Corporation of Tamil Nadu
28.	SPIC	Southern Petrochemical Industries Corporation
29.	SSC	Sector Skill Council
30.	TANSIDCO	Tamil Nadu Small Industries Development Corporation
31.	TIDCO	Tamil Nadu Industrial Development Corporation
32.	TN	Tamil Nadu
33.	TN-GIM	Tamil Nadu Global Investors Meet
34.	TNSDC	Tamil Nadu Skill Development Corporation
35.	TNWDC	Tamil Nadu Women Development Corporation, the implementing agency of the Tamil Nadu State Rural Livelihood Mission
36.	Tr. & Tou.	Trade and Tourism Sectors (GDP Sector)
37.	W / S Emp.	Wage or Salary Employment
38.	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 Tamil Nadu". This is the first time such a comprehensive State-wide study taking into consideration 6 blocks from each District has been attempted 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 the 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 is 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 in each district 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. Six blocks in the district were covered viz. Nanguneri, Alangulam, Ambasamudram, Tenkasi, Keelapavoor and Sankarankovil.

2. Quantitative employer survey: covering target of 46 in the district with adequate representation from Large, Medium, Small and Micro Industries across the key sectors defining the district economy.

[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

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, interactions with more than 20 stakeholders have been conducted across the district.

Estimation of labour demand and supply were undertaken based on analysis of data from, the Census of India, State and District Gross Domestic Product from the Department of Economics and Statistics of Government of Tamil Nadu, data from the Reserve Bank of India and Reports from the National Sample Survey and the Bureau of Labour and Employment. Estimates were further refined based on data on investments, and developments in key sectors, including due consideration to 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, quantitative survey findings and qualitative consultations. Budgets have been estimated based on the cost categories as defined in the Common Cost Norms released by the Ministry of Skill Development and Entrepreneurship, Government of India.

Key Findings:

Key findings of the study are presented hereunder:

Key Findings	
Demographic Analysis	• At 29 years, the median age of Tirunelveli is on par with the state average. It is expected to increase further to 35 years by 2026, lower than the state average of 37 years. The district is set to be marginally younger than the other parts of the state. • Urban population grew at a decadal growth rate of 19% compared to 9.7% in rural areas
Economic Analysis	• Tirunelveli is a moderately industrialised and economically developed district, contributing to 4% of the State's GDP in comparison to other districts in the state. • It ranks 17th among all the Districts with respect to GDDP per Capita, which was at ₹1.18 Lakhs (2016-17) and 13th in terms of disposable income per household at ₹4.16 Lakhs per annum (marginally lower than the State average). • The District's economy has grown at a CAGR of 4% between 2011-12 and 2016-17.
	Agriculture Sector:
	• The District's rapid urbanization is resulting in a decline of dedicated workforce for cultivation. • Livestock sub-sector has grown at a CAGR of 26% between 2011-12 and 2016-17 emerging as the primary contributor to the agriculture and allied sector output, increasingly replacing cultivation.
	Industrial Sector
	• The district is home to large industries like Bosch, Shankar Cements, and Ramco Industries. • Industrial sector has seen wide grown at 4% per annum between 2011-12 and 2016-17 • 'Food Processing' (Rice Mills), and 'Brick Kiln' are the existing clusters in the district.
	Services Sector
	• Grew at 6% per annum since 2012 driven by the, trade and tourism and real estate. • Tirunelveli is witnessing investments in IT/ ITES sector and is expected to generate demand for skilled workforce in the upcoming years. • Tirunelveli is the only District in the State that extends from the high mountains of the Western Ghats to the coastline of the Lakshadweep Sea with a variety of natural attractions including waterfalls and wildlife sanctuaries. • On the cultural front, the District is home to several historical temples including the Nava Kailaiyam circuit and the Nellaiappar temple in Tirunelveli City, which attract a continuous flow of tourists to the district. • Urbanisation of the District is witnessing several retail chains (both regional and national) establishing showrooms and warehouses.

Key Findings	
Labour Market Analysis	• Highly informal with 70% of the labour force engaged either in self-employment or casual labour. • 36% of the workforce employed in manufacturing. Trade & Tourism employ a further 20% of the workforce.
Education & Skill Development	• The district sees a high proliferation of private school education • Higher education is dominated by the arts and science stream with over 24,000 seats. • Vocational education in ITIs require upgradation in terms of technical equipment and adherence to safety requirements. • Skill development programs largely cater to entry level, low skilled jobs and not some of the specialist roles required in the market.
Findings from Primary Survey	
Youth Profile and Aspirations	• Not in Education, Employment, or Training (NEET) category respondents were largely female and generally belonged to age category of 20-29 years. • 23% of the respondents who had completed a technical Diploma or higher levels of education had been engaged in unskilled work, the highest among all categories. • 62% of the NEET category respondents wished to work at some point in the future. • 23% of the youth aspire for securing employment in the Public Sector. • 'Salary (wages) / income', 'job security', 'proximity to residence' were key determinants of selection of work. • 'Lack of jobs locally', and 'lack of appropriate career guidance', were identified as major challenges in pursuing desired careers. • 'Educational attainment', 'relevant work experience', and 'references', were identified as key factors determining employability. • Female respondents aspired for careers at sectors like: agrobusiness, food processing and BFSI. • Male respondents aspired for careers at sectors like: Agro-business, Iron & Steel, and BFSI. • Median Income expectation for entry level jobs is around ₹14,175 per month. • 29% of the respondents reported willingness to taking up vocational training. • There is a requirement for providing greater information on the labour market and counselling services to the youth.
Employer & Other Key Stake holder Perspective	• 89% of the employers recruit through references, only 7% recruit directly from institutions offering vocational courses. • 'Candidates' disinterest and attitude', 'high local wages', 'lack of requisite core skills' are the major challenges faced by employers in recruitment of the workforce. • Several of the employers witnessed high attrition among their employees. Lower wages and availability of alternate job opportunities across the State were the primary drivers of attrition. • Youth largely preferred white collared service sector jobs, specifically in sectors like: Retail, IT/ITES, BFSI, and Logistics. • Being a source of migrant workforce in other districts, there is a constant shortage of labour, especially skilled workers for the local industries. However, the lower wage rates are bringing investments from other parts of India and the State. • 'English Communication' was a major challenge, especially for securing employment within the services sector. • Investments are being made in technological upgradation in the industrial units, but there will be continued demand for skilled workers from the ITIs. • Key challenges in recruiting from vocational programs was the lack of job-readiness and adequate skills among the trainees. • Though Industries are willing to partner with the Govt. in skill development and vocational initiatives, simplification of processes was urgently required in apprenticeship and short term skill development programs.

Key Findings	
Skill Gap Analysis	• Nearly 80,000 additional skilled and semi-skilled workers are expected to be in demand over the next 6 years. • There is a shift expected from Agriculture to other sectors, especially manufacturing and allied sectors of agriculture. • Key sub-sectors driving the demand are Manufacturing, Education & Healthcare, and Construction, Allied sectors of agriculture, Tourism & Hospitality.

Key Recommendations:

1. **Convergence:** There is a requirement for better interface between Industry and the skill development ecosystem across the Southern Districts of Tirunelveli, Thoothukudi, Kanyakumari and Virudhunagar. The fluid labour force necessitates also improved coordination between the state agencies across the region to cater to the larger market and dynamically adapt to Industrial requirements. This coordination would help in appropriate provision of trades, avoidance of duplication of both trainings and candidates, and a uniform quality assurance regime. There is a requirement for a Labour Market Information System (LMIS) which can be used to ensure a better participation between Industry, job seekers and the Vocational Education System.
2. **Awareness generation:** There is mismatch in market perception and aspirations of youth (about salaries/wages, working conditions, career growth prospects, etc.) and market realities. Hence there is a requirement for initiating counselling on career prospects and market trends at the secondary levels of education, continuing through higher levels of education.
3. **Industry Experience:** It is seen that the earning potential among graduates does not vary significantly from Diploma / ITI holders over their career path. To enhance the value of the programs at the graduate level, it is necessary to strengthen the exposure to work environments among both technical and non-technical programs through mandatory hands-on training at appropriate organizations in the industrial and services sectors. In addition, it is necesssary to ensure trainers are also abridge of the latest trends in the Industry through special training programs.
4. **Augmenting Labour at MSMEs:** MSMEs have highlighted the unavailability of local labour due to large scale migrations of skilled workers from the Southern Districts to other parts of the State. The Apprenticeship scheme or wage subsidies on the lines of MGNREGA could be designed for supporting the local Industry to channelize labour towards them.
5. **Market linked Trainings:** There is a requirement for diversity in sectors as well as training in higher levels of the NSQF including at supervisory roles and those with higher technological requirements. It is seen that, even in ITIs and polytechnics, the exposure to advanced machinery or content (like safety) is less than sufficient to make the candidates job ready. Construction, Food Processing, Agro-business and Education sectors are key areas of employment potential require augmentation of training capacity.
6. **Fostering Traditional Sectors:** Tirunelveli is home to traditional industries like the Mat-weaving Industry in Pattamadai, Palm Leaf Handicrafts, and Brass Lamps. It is necessary for the Govt. of Tamil Nadu to promote the traditional skill-based occupations by formalising the traditional skills and ensuring market access/development through linkages.

1. District Profile

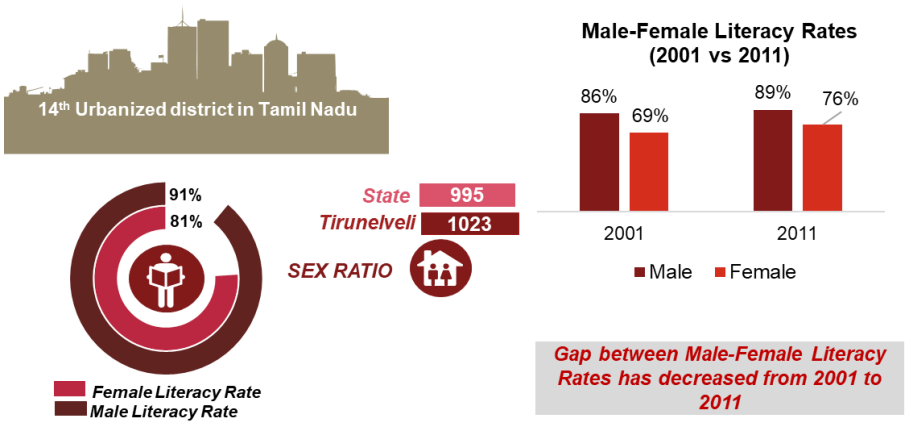
1.1 Demographic Profile

One of the oldest districts in the state, Tirunelveli was established (as Tinnevelly) in the year 1790. Colloquially known as “Nellai”, it is the third largest district in the state by area[3] and comprising of 13 blocks. The district is bound by the districts of Virudhunagar on the North, Kanyakumari district on the South, Thoothukudi in the East and the districts of Thiruvananthapuram, Kollam and Pathanamthitta in Kerala on its west. The vast district stretches from the heights of the Western Ghats to the coasts of the Lakshadweep Sea in the southern most region of the Indian mainland. With the fertile plains of the Thamirabarani, the district is one of the most diverse in the country in terms of natural diversity.

Table 1: Key Demographic Indicators– Tirunelveli vs Tamil Nadu

SN	Indicator[4]	Thoothukudi	Tamil Nadu
1	Total population	30,77,233	7,21,47,030
2	Population Density per sq.km (2011)	455	555
3	Urban Population	49.4%	48.4%
4	SC population (as % of total population)	18.4%	20.0%
5	ST population (as % of total population)	0.3%	1.1%
6	Differently abled population (as % of total population)	1.7%	1.6%
7	Population in age group 15-34 years (as % of total population)	32.7%	34.8%
8	SC population aged 15-34 years (as % of SC population)	35%	36.6%
9	ST population aged 15-34 years (as % of ST population)	36%	35.0%
10	Literacy rate	82.5%	80.3%

Snapshot of Tirunelveli’s Demography



Key Highlights from the analysis of Census Data:

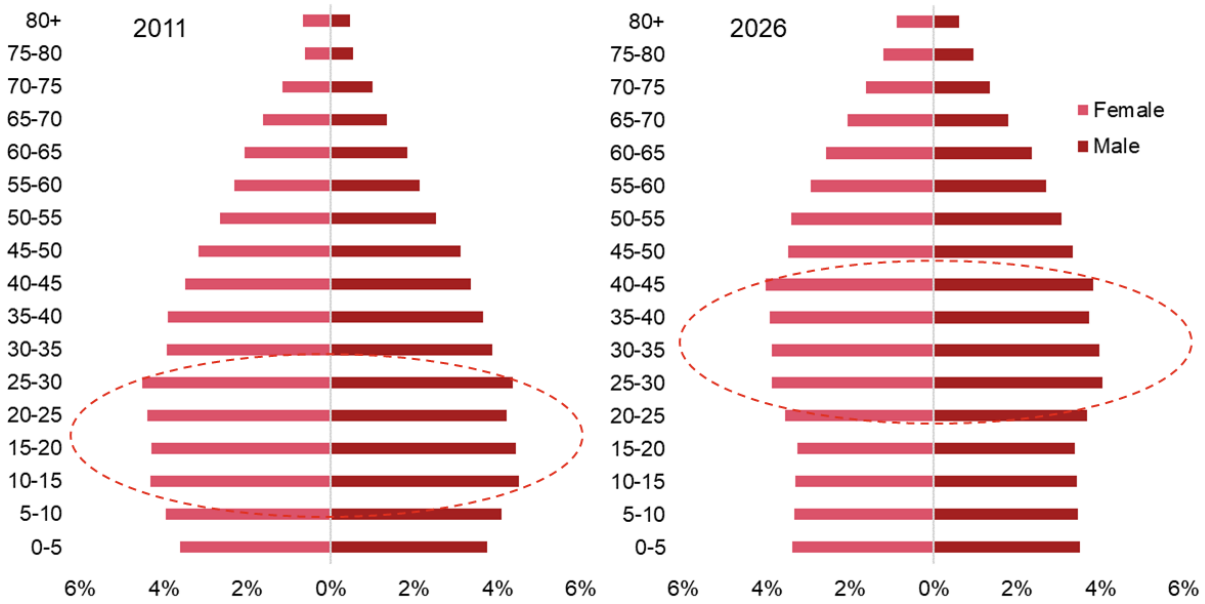
- **Population Growth and Urbanization:** The decadal growth rate **of the population in the district** was **12.9%** between 2001 and 2011, compared to **15.6%** at state level. The urban population has grown at a decadal growth rate of **16%** while the rural population **has grown at a slower rate of 9.7%**. The population growth has been driven by the urbanization of rural areas and inward migration to cities.
- **Literacy: In 2011,** the district had a female literacy rate of 76% while the male literacy rate of 89.2%. These are higher than the corresponding literacy rates at the State level (see in Table 1). Between 2001 and 2011, the literacy rates among males increased by 2-3% while among females it increased by 7%, reducing the gap between them from a 13% in 2001 to 9.8% in 2011. The reducing gap between the

[3] Before the Bifurcation of Tenkasi District
[4] Census 2001 and 2011

male and female literacy rates indicates a higher level of female participation in education and improvement in educational attainment among females in the district.

- **Youth Demography:** About one-third of the population was in the age category of 15-34 years in 2011. The Median age was 29 years, on par with the State. The population is set to get older with median age in 2026 expected to be around 35 years, as illustrated in the age-specific population pyramid of the District as seen below. [5] However, this is lower than the State average of 37 years. This indicates a relatively wider opportunity to tap the demographic dividend as compared to other regions of the State which are ageing at a faster pace.

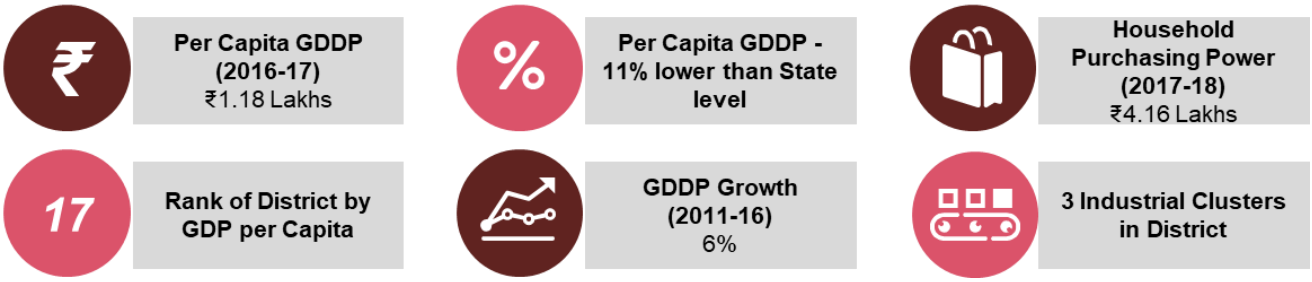
Figure 1 Age-wise Population Pyramid of Tirunelveli (2011 vs 2026)



1.2 Economic Profile

Tirunelveli is the second most Industrialised District among the southern districts of the State (after Thoothukudi) and contributes to 4% of the State's GDP.[6] The major industries are **trade**, **chemicals**, **garments,** and **processed food**. The southern Districts of the State have a rich history of entrepreneurs with the State's leading brands in Retail, Tourism & Hospitality, and Food Processing having their roots here. The District ranks **17th in Per Capita Income and 13th in Household Purchasing Power capacity of around 4.16 lakhs per annum.**[7] **The district is among the mid-ranking districts in the State, in terms of economic well-being.**

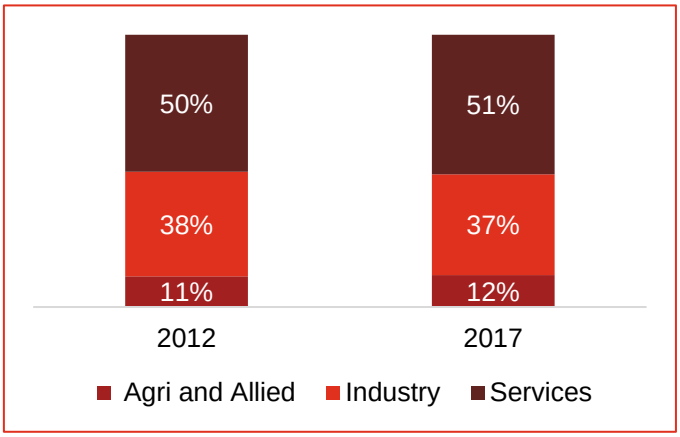
Figure 2 Key Economic Indicators of Tirunelveli District



[5] Age wise Population projected for 2026 based on age group wise life expectancy, birth and death rates
[6] D0ES, GoTN
[7] 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: District-metrics.com

1.2.1 Sector wise Analysis

Figure 3 Sectoral Share of GVA (2012 & 2017)

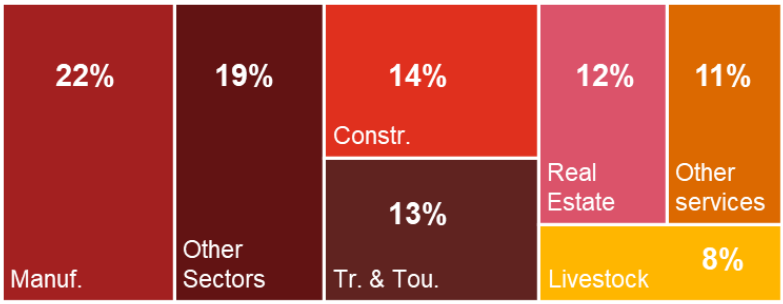


The Economy[8] of the District is dominated by the service and Industrial sectors, which jointly accounted for about 88% of the district output in 2017. The district has grown at a compounded annual growth rate of 6% largely driven by the services sector, which grew at the same rate between 2011-12 and 2016-17. The agriculture and Industry sector have witnessed varying growth with wide variations from year to year. The Industrial sector has witnessed a slower growth. At sub-sector level, Manufacturing, Real Estate, Trade & Tourism, Construction & Livestock are the major contributors to the District's economy.

Table 2 Sector wise- Annual Growth Rate in Tirunelveli

Sector	2012-13	2013-14	2014-15	2015-16	2016-17	Average
Agri & Allied	-14%	26%	30%	0%	-5%	6%
Industry	21%	-7%	-4%	13%	2%	4%
Services	5%	7%	8%	2%	6%	6%

Figure 4 Share of GVA by Industry of Origin (2016-17)



Manufacturing is the largest sub sector in the District. Other key sectors are Real Estate, Construction, Trade & Tourism & Livestock.

Agriculture and Allied Sector

The agriculture and allied sector's share in output has improved in recent years. The main crops cultivated include paddy, black grams and citrus fruits which account for 72% of the cultivated land. Other crops like maize and banana are also grown[9]. The District has seen varying production of paddy since 2011-12. The negative growth in the major crop of paddy is one of the primary reasons for the sectors slow-down in 2012-13 and 2016-17.

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

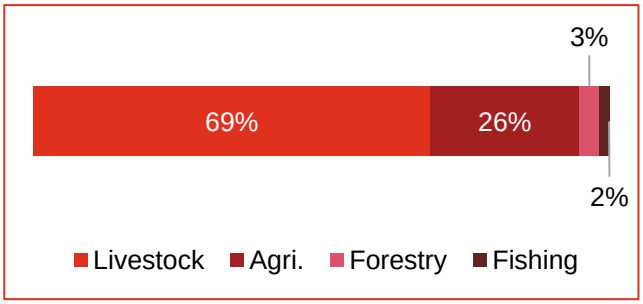
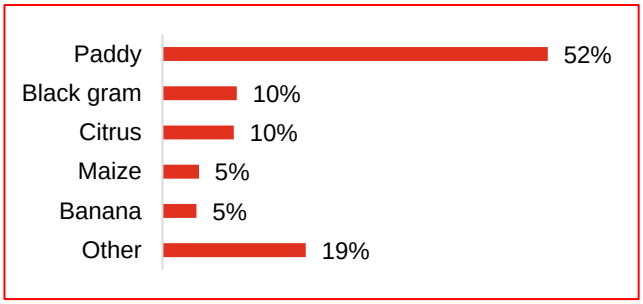


Figure 5 Crops by Share of Cultivated Area

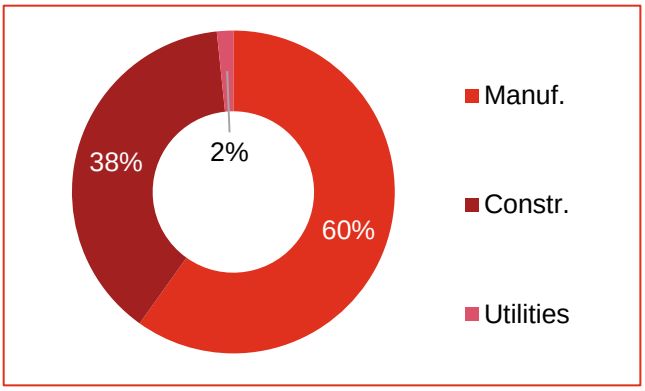


[8] Analysis in this section accounts is from data on GDDP provided by Directorate of Economics and Statistics, GoTN
[9] District Agriculture Contingency Plan, Dept. of Agriculture Cooperation and Farmer Welfare

Industrial Sector

The sector is dominated largely by manufacturing and construction sectors, which jointly, account for over 95% of the output. The sector has seen considerable variation in growth since 2011-12, especially in the manufacturing sector with years of high growth and low growth. In 2012-13, the manufacturing sector saw 31% growth driven by output in food processing, and rubber. Similarly, the launch of large units like Bosch drove the growth in 2015-16. Negative growth (4-7%) was witnessed in 2013-14 and 2014-15. While the there was a Mining has seen consistent decline having reduced at a CAGR of 14% between 2011-12 and 2016-17. Environmental issues have been highlighted as a concern for this reduction with almost all mines waiting environmental clearance.[10] Apparel & textiles, chemical production and food processing, were some the key industries in the District. Recent initiatives in the promotion of Special Economic Zones have facilitated the establishment of manufacturing units like Bosch, Ramco Industries, Lakshmi Mills, and ATG Tyres, among others. The industrial towns of Thoothukudi and Kovilpatti are in close proximity and employ a considerable share of the District's population who travel across the District limits on a daily basis.

Figure 7 Industrial Sector GVA (2016-17)



Key Clusters and Traditional Industries

Rice Processing	Bamboo Based Products	Mat Weaving
Bricks	Brass Lamps	Palm Leaf Based Work

Table 3 Profile of Manufacturing Sector from ASI

Industry	No. of Units	No. of Employee	Share in total GVA	Share of Employment	Average workers per unit
Tobacco Products	49	10,553	36%	26%	215
Spinning, weaving and finishing of textiles	59	7,841	13%	19%	133
Non Metallic Mineral	141	3,575	13%	9%	25
Other Food Products	22	2,951	1%	7%	134
Other manufacturing n.e.c.	10	1,656	1%	4%	166
Rubber Products	8	1,593	21%	4%	199
Other Chemical Products	63	1,546	0%	4%	25
Fabrication and Metalwork	25	1,326	1%	3%	53
Paper and Paper Products	25	1,299	2%	3%	52
Others	327	8,254	13%	20%	327
Total	729	40,594	100%	100%	56

According to the ASI 2014-15, around 729 Industrial units were present in the district, directly employing more than 40,000 workers. Tobacco (Beedi Rolling), Textile, Chemical and Food Processing were the key industries as per output and employment.

[10] http://www.tnmine.tn.nic.in/leases/Thirunelveli-Mj.pdf

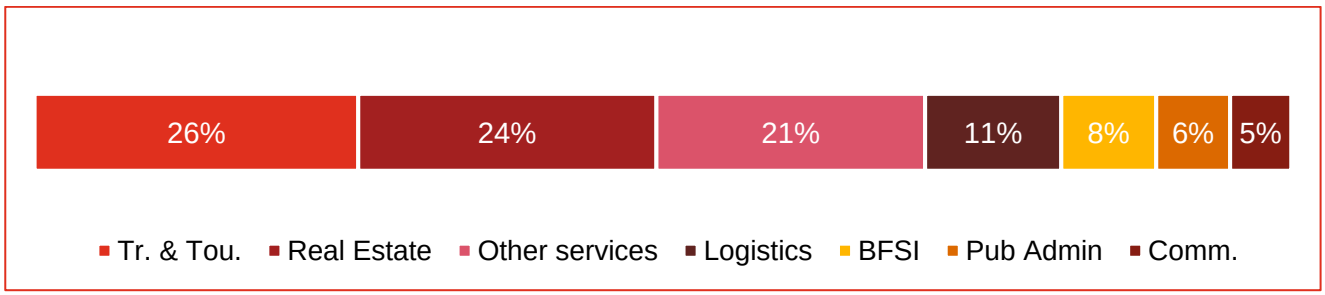
Table 4 Existing Industrial Estate & Plants

S.No	Name	Industries
1.	State Industries Promotion Corporation of Tamil Nadu (SIPCOT) – Gangaikondan	Chemicals, Food Processing, Apparel & Textile industries, Fabrication and Equipment
2.	Tamil Nadu Small Industries Development Corporation Limited Industrial Estate (TANSIDCO) – Kesavaneri (Valliyoor),	
3.	Tamil Nadu Small Industries Development Corporation Limited Industrial Estate (TANSIDCO), Kurukkkalpati	
4.	Tamil Nadu Small Industries Development Corporation Limited Industrial Estate (TANSIDCO), Mangalapuram (Kadayanallur),	
5.	Nanguneri SEZ	

Services Sector

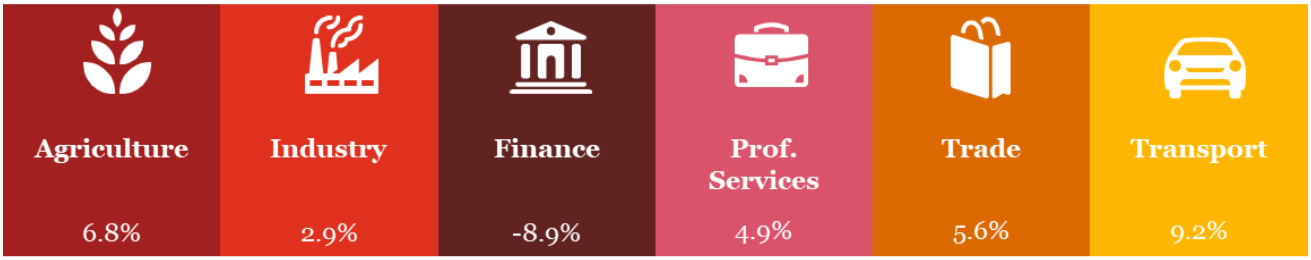
The sector has witnessed a steady growth with an average of 6% per annum between 2011-12 and 2016-17. Trade and Tourism contribute to nearly a fifth of the services sector. High rates of urbanization in the district has resulted in a high share of Real Estate and Business Services output. This is due to increasing real estate transactions and rentals. Tirunelveli is the only District in the State which supported the major ecosystems of the Sangam Literature viz. Kurunchi (hills and mountains), Mullai (forest and allied land), Marutham (cultivable fields), and Neithal (sea and allied land). The diversity has provided various attractions both natural and cultural. Major natural attractions include Mundanthurai Tiger Reserve, Koonthakulam Bird Sanctuary and the Water Falls at Courtallam, at Papanasam (Agasthya Falls) and at Manimuthar. The cultural attractions include the major Temples in Tirunelveli (City), Sankarankovil, Courtallam, Thirukkurungudi and the temples belonging to the Navakailayam circuit. This along, with the attractions in the neighbouring district of Kanyakumari bring a steady stream of tourists from across the state and country. The IT & ITES sector has also seen recent investments in the district. The Southern districts have been historically known for their better education and other social infrastructure which has also sees a sizable contribution from 'Other Services'.

Figure 8 GVA of Services Sector (2016-17)



1.2.2 Investments and key economic drivers

Figure 9 Sector-wise growth of Credit off Take (2011-12-2016-17) - RBI



According to the data collected from the RBI[11], the District has seen recent growth in credit off take in Agriculture, Industry, Transport, Trade, and Professional Services indicating higher business investments in the sectors.

Other key investments and sectors include

- According to TN-Global Investors Meet data, more than ₹6,000 Crores of Investment is expected in the manufacturing sector in Chemical and Petrochemicals, Textile, Food Processing and Electronic Manufacturing.
- Tourism circuits are being developed under the 'Swadesi Dardhan Scheme" including major uplifts to temples and tourist locations.
- The Madurai Tuticorin Industrial Corridor project is under planning as part of the larger Chennai Kanyakumari Industrial Corridor.

[11] Source: Geocrede.com

A sector-wise analysis of the key investments in the southern Districts of Tamil Nadu[12] and upcoming projects have been listed below:

Sectors	Key Investments
Textile	• Investments > Rs. 200 Crore signed as part of GIM
Agro & Food Processing	• Investments > Rs. 300 Crores signed as part of GIM • Key investments expected through the setting up of Mega Food Parks in Virudhunagar, Tirunelveli, Thoothukudi costing more than Rs. 2,000 Crores • Virudhunagar Dairy Plant Project costing more than Rs. 100 Crores • Fish Processing Business Incubation Centre, Thoothukudi
Electronics Manufacturing	• Investments > Rs. 75 Crores signed as part of GIM with expected Employment of 3000 Direct employment
Infrastructure	• Smart City Projects in Tirunelveli and Thoothukudi in water & sanitation, road infrastructure
Chemical & Petro Chemical	• Investments of close to Rs, 5,000 crores signed as part of GIM
Logistics	• Investments > Rs. 150 Crores signed as part of GIM with expected Employment of 1300 Direct employment
IT/ ITES	• SEZ for IT/ITES sector being developed at Rs.1000 Crore investment
Renewable Energy	• Investments in tune of Rs. 3,000 Crores for Thoothukudi Wind power Project

[12] The districts of Southern Tamil Nadu viz. Tirunelveli, Virudhunagar, Thoothukudi and Kanyakumari are socially, and economically interlinked. The labour markets are fluid, with, workers often moving from one district to another, (a central location like Tirunelveli) for economic purposes on a daily / weekly basis. Hence, the investments have the potential to benefit the entire region apart from the district itself.

1.3 Labour Market Profile

The District's major labour market[13] indicators see higher participation and lower unemployment than State levels. Around 62% of the working age population (15 years and above) are available for work while around 46% are in the workforce. However, the largest share of the workforce are in self-employment, which employed 42% of the workers. The district has low level of overall unemployment rate (2%). However, among the youth aged 15-29 years, the unemployment rate is 6% indicating the lack of mismatch between the demand and supply for jobs among the youth.

Figure 10 Key Labour Market Indicators

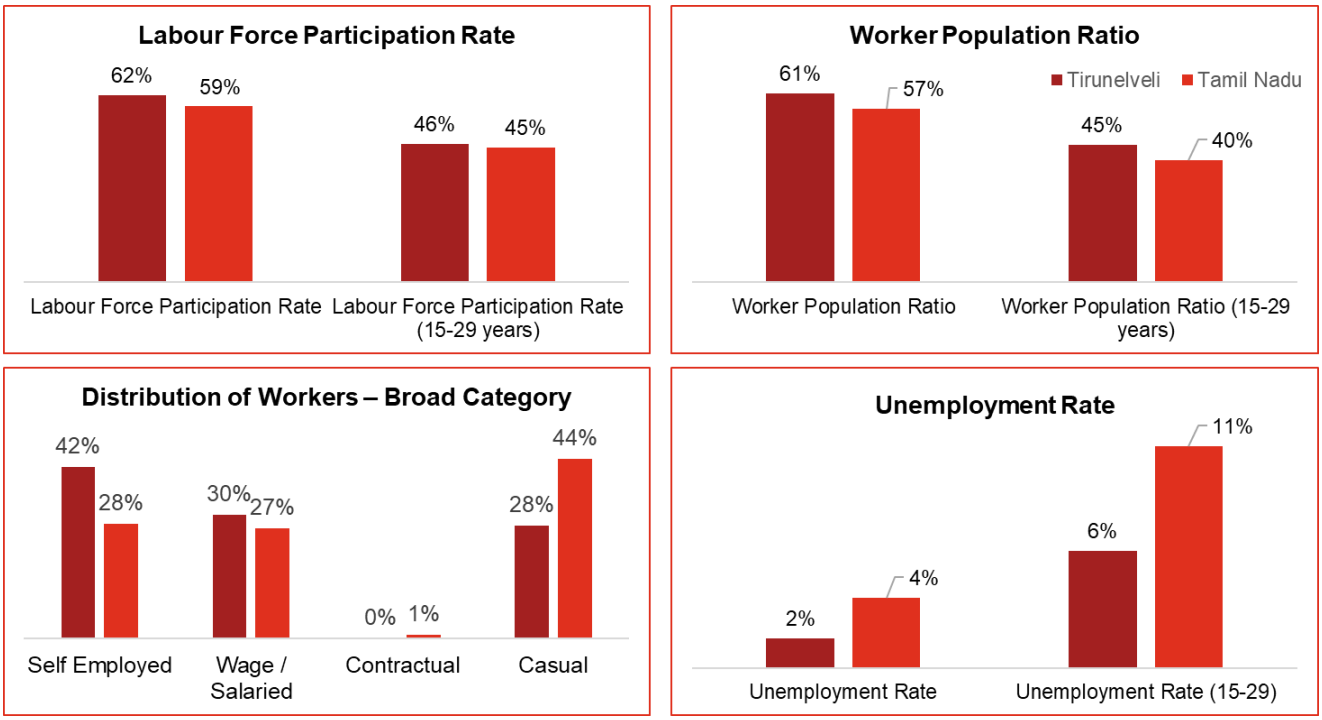
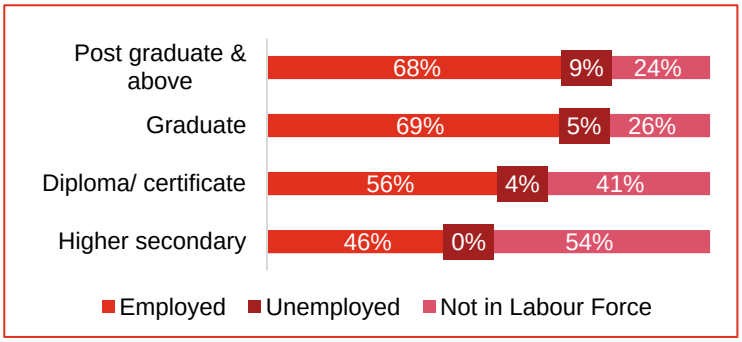


Figure 11 Distribution of Working status by Qualification



The education wise classification of the population in the District indicates a positive correlation between higher levels of education and higher unemployment rate. This points towards mismatch between industry demand and the output from the education system. Over 5% of Graduates were unemployed (Proportion Unemployed). This translates into an unemployment rates[14] of 6% in the graduate category. The considerable share of self-employment and informal nature of the workforce meant, lower unemployment rates at lower levels of education.

Table 5 LFPR and Unemployment Rate by Sex & Location

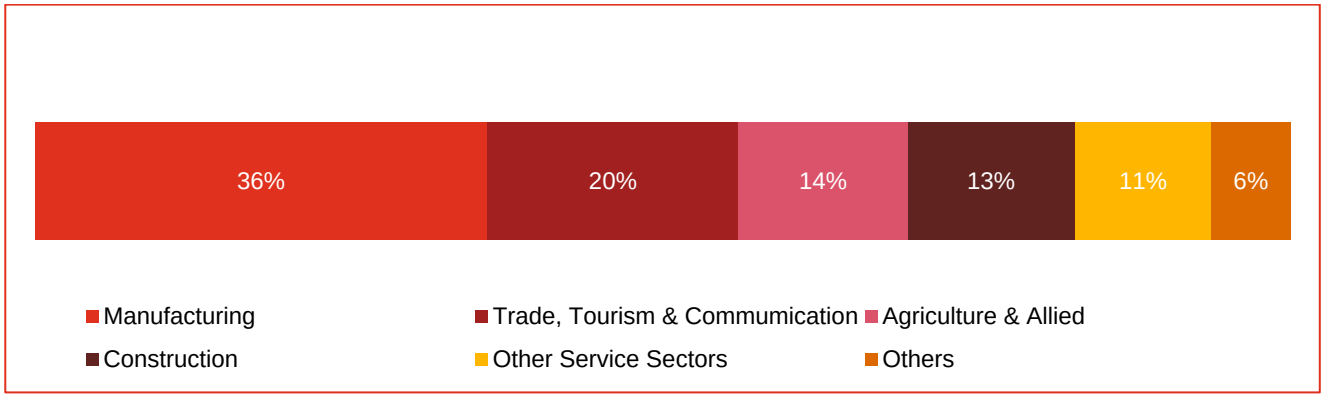
Sex	LFPR		Unemployment Rate	
	Rural	Urban	Rural	Urban
Male	80.0%	74.8%	1.8%	1.6%
Female	51.2%	41.1%	0.5%	2.0%

Disaggregating LFPR by sex and location of the respondent, it is seen that the participation rate of urban females (41.1%) is lower than their rural counterparts (51.2%) by 10 percentage points; while the difference between the LFPR of men across rural and urban geographies are only 5 percentage points Similarly, the difference in

[13] Analysis in this section are based on the District Level Estimates, EUS, 2013-14, Labour Bureau
[14] Unemployment rate is a proportion of the Labour force who are willing but unable to find work.

unemployment rates between females and males is also marginal.

Figure 12 Sector-wise share of Employment



More than one-third of the workforce in the District is employed within the manufacturing sector followed by the Trade Tourism and Communication Sectors. Over 14% of the population is employed in agriculture.

1.4 Education and Skill Development Profile

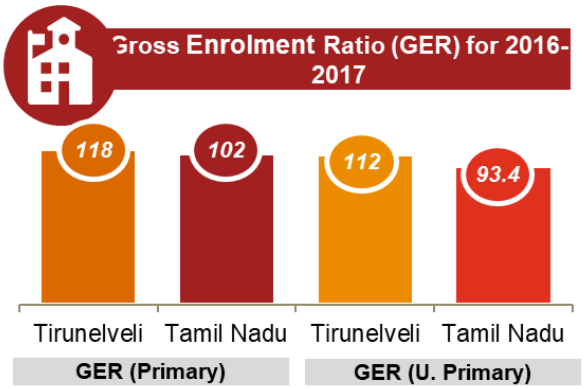
1.4.1 Education Profile

The southern Districts of the State outperform most other regions and are an important centre for education, having higher rates of literacy and education attainment compared to other parts of the State.

Table 6 Primary Education Profile - DISE

Particulars	Number
Schools in 2015-16	2,753
Schools in 2016-17	2,776
Public Schools	952
Private Schools	1,789
Enrolment in 2016-17	4,40,350
Enrolment in Pvt. Schools	3,47,400
Enrolment in Pub. Schools	91,058

Figure 13 GER and Drop-out Rates - DISE



According to DISE 2016-17 (refer Table 6), there were 2,776 schools in the district, marginally higher than the previous year, while the number of enrolments has fallen by around 1%. The private sector dominates both the number of schools and the enrolments. The Gross Enrolment Ratio at both primary and upper primary are higher than the State averages (Figure 13). The ratio indicates that the number of students in the district outstrip the expected population in the age cohort.

The Higher Education[15] is dominated by the General Arts & Science programs with 27 institutions catering to 36,371 students. Engineering Colleges with 18 institutions catering to 18,631 students and Polytechnics, with 23 institutions with an overall enrolment of 17,114 students are the other major tertiary education streams. Males dominate the admissions in Engineering Colleges and Polytechnics while females dominate the admissions in Arts and Sciences programs.

Table 7 Institutions of Higher Education in Tirunelveli District

S.No	Institution Type	No of Institutions	Students		
			Males	Females	Total
1.	General Arts & Science	27	11,180	25,191	36,371
2.	Engineering	18	11,779	6,822	18,631
3.	Polytechnic	23	15,777	1,337	17,114
4.	B.Ed.	30	1,014	4,477	5,491
5.	ITI	24	--	--	2,839
6.	Siddha	1	206	589	795
7.	Pharmacy	3	295	291	586
8.	Dental	1	136	386	522
9.	Physio	1	82	85	167
10.	Total	128	40,387	39,093	82,516

[15] District Statistical Handbook, Govt. of Tamil Nadu

1.4.2 Vocational Education and Skill Development Profile

The skill training infrastructure[16][17][18] of the district include skill training centers implementing schemes like TNSDC, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and Deen Dayal Upadhyay Grameen Kaushal Yojana (DDU-GKY). Under the PMKVY program, trainings are given under six sectors and nine trades with a target of 660 in the last two years. Apparel (27%), BFSI, Healthcare, and IT-ITES (each 18%) accounted for the majority of the trainings. Under the TNSDC funded programs, trainings have been conducted under for 18 trades and 1,400 trainees. The Key sectors are Apparel and Textile (41%), Construction (20%), and Healthcare (11%). It is also observed that, several trades are entry level job roles.

Table 8 Vocational Training under Short Term Skill Development Programs

S.No.	Scheme	Sector	Job Role	Number of Training Centers	Intake
1	Deen Dayal Upadhyay Grameen Kaushal Yojana	Apparel & Textile, IT-ITES	--	8	270
2	Pradhan Mantri Kaushal Vikas Yojana	Apparel	Hand Embroiderer	1	60
			Self Employed Tailor	1	60
			Sewing Machine Operator	1	60
		BFSI	Accounts Executive - Accounts Payable and Receivable	1	120
		Electronics and Hardware	Field Technician - Other Home Appliances	1	30
		Healthcare	General Duty Assistant	1	60
			MLT	1	60
		IT-ITeS	Junior Software Developer	1	120
		Retail	Retail Sales Associate	1	90
3	Tamil Nadu Skill Development Corporation (Completed Trainings since last 3 years)	Apparel & Textile	Sewing Machine Operator	3	140
			Hand Embroider	1	20
			Surface Ornamentation Techniques	2	60
			Tailor (Basic Sewing Operator)	7	360
		Beauty & Wellness	Beauty Therapy and Hair Styling level One	1	120
		Capital Goods	CNC Operator - Turning	1	40
			Arc and Gas Welder	1	20
		Construction	Draughtsman	1	40
			Helper Electrician	1	60
			Surveyor	1	20
			Painter Assistant/helper	1	100

[16] Tamil Nadu Women Development Corporation
[17] PKMVY
[18] TNSDC

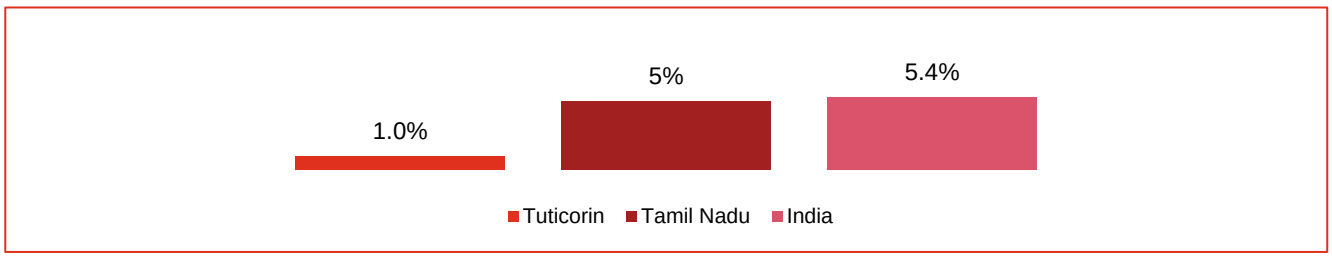
S.No.	Scheme	Sector	Job Role	Number of Training Centers	Intake
			Wood Painter	1	60
		Electronics & Hardware	Field Technician Computing and Peripherals	1	60
			Mobile Phone Hardware Repair Technician	1	60
		Health Care	General Duty Assistant	1	20
			Basic of Anatomy & Physiology	1	140
		Furniture & Furnishings	Basic Wood Work	1	40
			Wooden Furniture	1	40

The long-term skill development programs are predominantly offered through Industrial Training Institutes, which offer one and two year programs across various sectors and trades. There are 25 ITIs in the district with a stated capacity of more than 2,800 seats across 14 trades. The table below presents the courses offered through ITI, and the number of such institutes offering each trade/ training for job role. Electrician (23%), Mechanic Motor Vehicle (21%), Fitter (20%), and Welder (13%) are the key trades. Overall the ITIs see 76% utilisation[19]. The pass percentage from the courses is 61%, much lower than the state average of 71%[20].

Table 9 Vocational Training under Long Term Skill Development Programs (ITI)

Sector	Job Role	Training Centres	Intake
Automotive	Mechanic (Motor Vehicle)	19	450
	Mechanic Diesel	6	48
Capital Goods	Fitter	26	425
	Machinist	1	47
	Pump Operator-Cum-Mechanic	1	35
	Turner	1	76
	Welder	10	278
	Wireman	7	101
Construction	Draughtsman (Civil)	1	15
	Electrician	25	504
	Plumber	2	10
Electronics	Electronics Mechanic	2	26
	Mechanic (Refrigeration and Air-Conditioning)	6	127
IT ITES	Computer Operator and Programming Assistant	6	37

Figure 14 Population Undergone Vocational Training – Labour Bureau



[19] NCVT
[20] Directorate of Training, GOTN

Only 1% of the district's population aged 15 years and above have undergone any vocational training, compared to the average of 5% at the State level.[21].

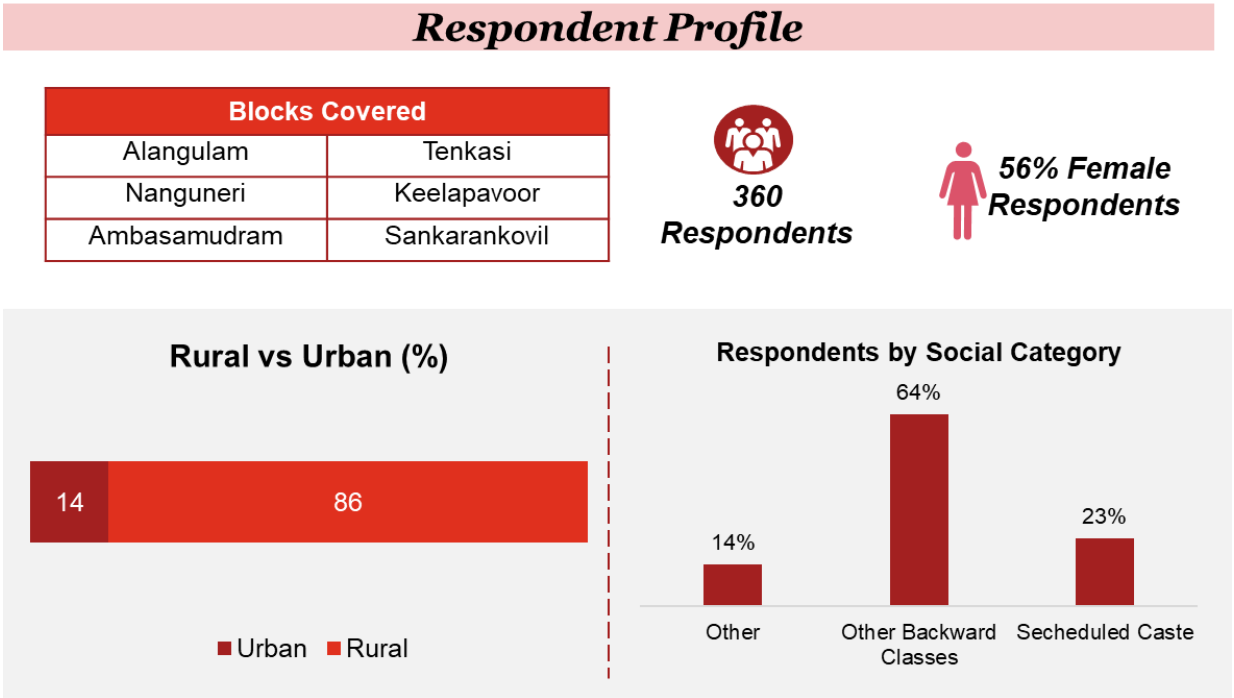
[21] Employment and Unemployment Survey, 2015-16, Ministry of Labour and Employment

2. Youth Perspectives

The structured household survey tool was administered with the 360 youth (young men and women in the age group of 15-34 years) sampled from six blocks Alangulam, Nanguneri, Ambasamudram, Tenkasi, Keelapavoor, Sankarankovil. Of the total respondents, **56%** were **female**. Also, **more than 85 % of the respondents** were from the rural category. The sample has balanced representation of various socioeconomic and demographic characteristics as per the focus of the study.

2.1 Profile of Respondent Youth

Figure 15 Respondent Profile of Youth Aspiration Survey

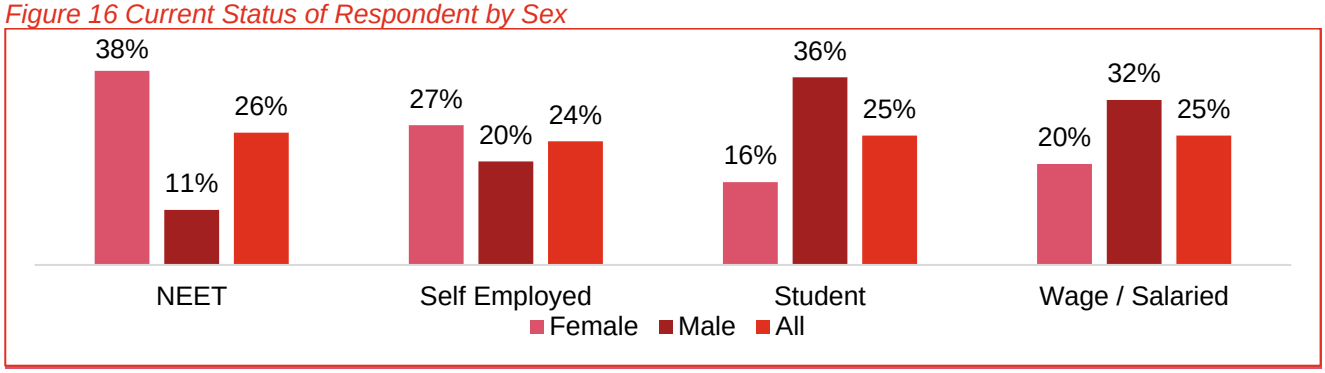


2.2 Respondents' Current Status

Figure 16Figure 16 illustrates the gender wise classification (current status) of the respondents interviewed during the household survey. While the female respondents were predominantly falling in the NEET (38%) category, the

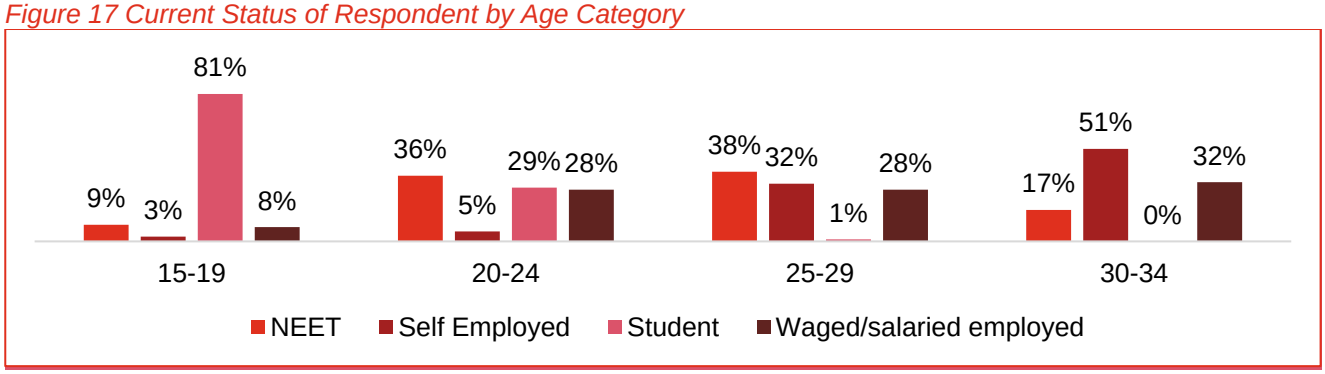
male respondents were largely distributed between Wage and Salaried Employment (32%), and in Education / Training (36%). The female respondents' participation in economic activity was (47%). This was very close to the participation by male respondents (52%).

Figure 16 Current Status of Respondent by Sex



On analysing the sample across age categories (Figure 17), it was observed that most (81%) of the respondents in the 15-19 years age category were students while around the second largest category was in NEET category. In the 20-24 years age category, about one third of the respondents fell under NEET category. In the 25-29 years age category, the sample was distributed almost between NEET (38%), Self-Employment (32%) and Wage / Salaried employment (28%) with only 1% respondents in Education. 51% of the respondents in the 30-34 years age category were in Self Employment while another one-third were in Wage Employment.

Figure 17 Current Status of Respondent by Age Category

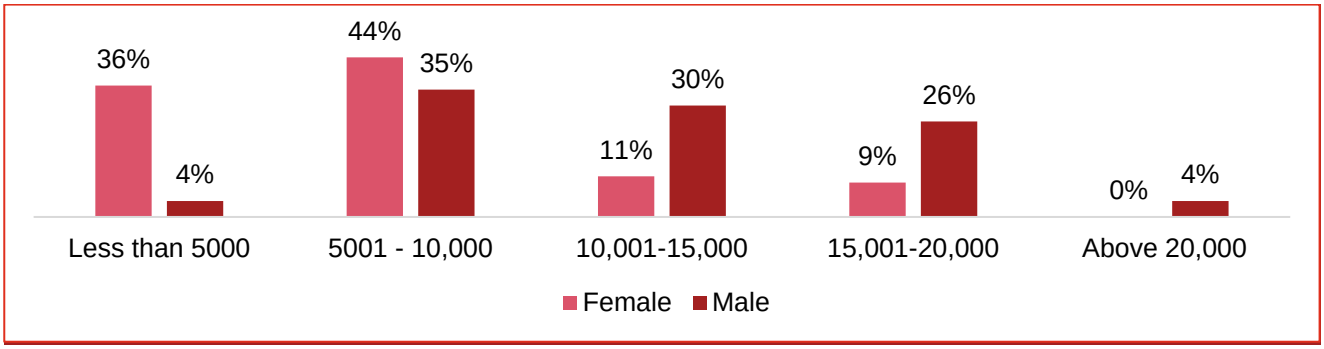


2.3 Economic Engagement of Youth

Nearly sixty percent of the respondents had been engaged in an economic activity of some kind, however, only 49% of the respondents were presently engaged in one. 85% of the respondents who had ever engaged in an economic activity reported that they were employed in a field related to their education / training.

The Median income of those who ever engaged in economic activity was ₹8,500 per month. While it was ₹6,591 per month among females, it was ₹11,833 per month among males. Over 79% of female respondents in this category had earned a monthly income of ₹10,000 or lesser. The overall median income was lower than the State level (₹9,968); the females in the District were earning much less than the State level (₹7,912). About 16% of the graduates (and above) earned higher than ₹15,000 a month, against a State average of 30% who earned above ₹15,000 a month.

Figure 18 Distribution of Respondents across Monthly Income Category across Sex



(n=215)

Table 10 Distribution of respondents across Monthly Income Categories by Education Level

	Upper Primary & Below	Secondary	Higher Secondary	Diploma / ITI	Graduate & Above
10,000 and below	80%	69%	49%	36%	68%
10,001 to 15,000	12%	24%	17%	33%	16%
15,001 to 20,000	8%	7%	32%	27%	11%
20,000 and above	0%	0%	2%	3%	5%
Total (N)	50	42	47	33	37

A large proportion of the respondents ever engaged in economic activity were engaged as a skilled worker in trades like tailoring, masonry, carpentry, welding, engineering etc. It is important to note that, 23% of the respondents who had completed a Diploma or higher levels of education had been engaged in unskilled work, the highest among all categories.

Table 11 Education Qualification of Respondents and Employment Type

	Upper Primary and Below	Secondary	Higher Secondary	Diploma and Above
Farm Activities	22%	5%	9%	4%
Livestock	34%	24%	26%	6%
Unskilled work (MGNREGA, construction	0%	2%	4%	23%
Skilled worker (tailor, mason)	20%	55%	34%	36%
Salaried Employment	0%	0%	0%	0%
Business / Trade / Manufacturing	20%	14%	23%	33%
Number of respondents	50	42	47	70

2.4 Youth under NEET Category

Around one-fourth of the respondents were from the NEET category. 81% of the respondents in the NEET respondents were female. Nearly 73% of the NEET category respondents were in the 20-29 years age category. While 68% of Males were in NEET category for less than 6 months, more than half of the female respondents have been in the NEET category for more than a year. 42% of the respondents in the NEET category are between the ages 20-24 years while 30% are between 25-29 years.

57% of the Female respondents and almost all male (barring 3) respondents, wish to work in the future. However, only 8% of those female respondents have been actively seeking work. On the other, half the male respondents in this category wishing to work are actively seeking work opportunities.

Table 12 NEET Category Respondents

Duration in NEET Category			
	Female	Male	Total
Less than 6 months	3%	12%	4%
6 months- 1 year	9%	35%	14%
1- 2 years	9%	29%	13%
2- 3 years	29%	18%	27%
More than 3 years	49%	6%	41%
Total	75	17	92

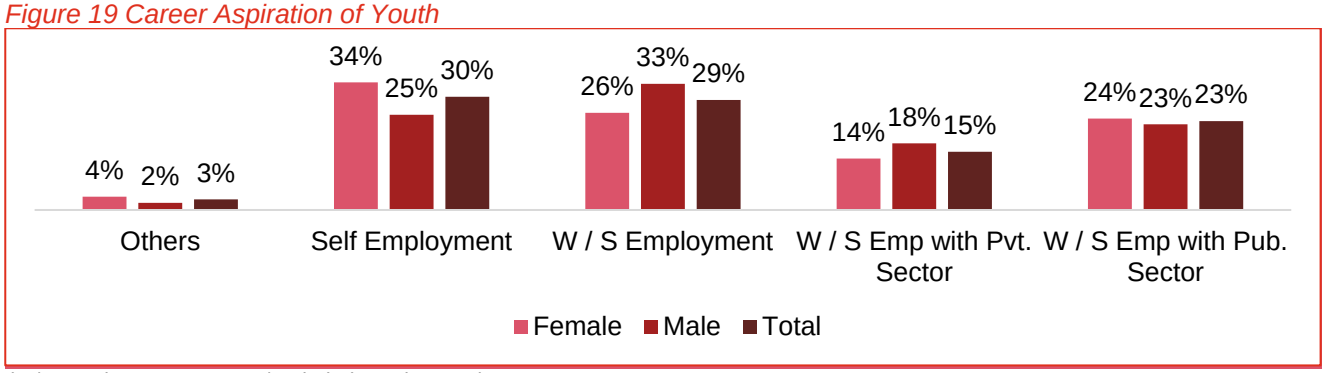
Wish to Work			
	Female	Male	Total
Yes	57%	82%	62%
Total	75	17	94

Actively Seeking Work			
	Female	Male	Total
Yes	49%	86%	58%
Total	43	14	57

2.5 Youth Career Aspiration

The youth in the district expressed preference largely for self-employment (30%) and wage / salaried employment in general (28%). Both females and males have shown similar interest in the pursuit of public sector employment, Females have a substantially higher interest in pursuit of self -employment. More than 70% of males prefer wage / salary employment of any kind more than Self Employment / Entrepreneurship.

Figure 19 Career Aspiration of Youth



(W/S Employment – Wage / Salaried Employment)

The main factors determining the aspiration of the youth are Salary (wages) / Income (86%), Job Security (40%), (59%), Proximity to Residence (37%) and Security / Safety of workplace (28%). 73% of the youth feel they are largely or completely prepared for requirements for a job while only 3% feel they are unprepared. 62% of the youth felt there were inadequate job opportunities to pursue in the district.

Table 13 Career Aspiration - Factors, Preparedness and Availability of Jobs

Factors Determining Aspiration	Responses* (n=360)
Salary (wages) / Income	86%
Job Security	40%
Proximity to Residence	37%
Safety / Security	28%
Social Status	21%
Flexible work arrangements (location, schedule)	7%
Opportunities for promotion and career development	7%
Traditionally Acquired Skills / Family Business	2%

Perception of Preparedness for Jobs (n=178(	Responses
Completely Prepared	30%
Largely Prepared	43%
Moderately Prepared	20%
Somewhat prepared	4%
Not Prepared	3%

Availability of Job Opportunities (n=360)	Responses
Very adequate	7%
Somewhat adequate	15%
Neither adequate nor inadequate	14%
Somewhat inadequate	34%
Very inadequate	28%

**Multiple response question, sum may exceed 100%*

58% of the youth see no particular challenge in pursuing a career. Among the challenges that the youth do see in pursuing the careers, the lack of sufficient jobs locally emerges as the primary challenge. Other key challenges include lack of appropriate guidance and low financial strength. Both females and males highlighted the lack of sufficient jobs locally as the primary challenge. **7% of the youth highlighted the lack of technical and vocational skills as a challenge in pursuing their career aspiration.**

Table 14 Career Aspiration – Challenges in pursuing desired career

Challenges (n=360)	Responses	Challenges (n=360)	Responses
No Challenge	58%	Pressure related to getting married	4%
Lack of jobs locally	21%	Unsafe working environment	4%
Lack of guidance / information on appropriate job available for skill levels	14%	Lack of family support / social acceptance of girls being engaged in economic activity	3%
Low financial strength	12%	Lack of work experience	3%
Lack of sufficient education qualification	8%	Lack of Soft Skills	1%
Lack of technical / vocational skills	7%		

**Multiple response question, sum may exceed 100%*

According to the respondents, the key factors influencing their employability, were educational attainment (32%), years of relevant experience (26%), references (16%) and performance in interviews (9%). Clear Communication Skills (67%) and Team Work (33%) were identified as key skills specific to their aspired jobs. Leadership (13%) and coordination skills (12%) were other identified areas of skill development. **While 27% respondents had already taken steps to meet these requirements, 57% were intending to take up an apprenticeship / gather work experience**. 8% were looking for vocational / skill training.

Table 15 Key Requirements to enhance employability and steps to achieve aspirations

Key Requirements to enhance employability*			
Requirements	Responses	Requirements	Responses
Education attainment	32%	Relevant work experience in similar position or field	5%
Years of Relevant Work Experience	26%	Certifications of Technical Skill	4%
References	16%	Basics and soft skills	4%
Performance in Interviews	9%		
Key Skills Required for desired job*			
Clear communication	67%	Analytical thinking	10%
Team work	33%	Active listening	9%
Leadership	13%	Attention to detail	6%
Coordination Skills	12%	Time management	6%
Creativity, originality and initiative	11%	Critical thinking and analysis	4%
New Steps to achieve aspirations			
Steps	Responses	Steps	Responses
Apprenticeship / Gathering Work Experience	51%	Vocational/ Skill Training	8%
Already in Pursuit	27%	Others	5%
Continuing Education	22%		

**Multiple response question, sum may exceed 100%, (n=360)*

Female respondents aspired for careers in the Agro-business, food processing and BFSI. Males aspired for Agro-business, Iron & Steel, and BFSI.

Table 16 Sectors aspired by respondents

Females	Responses	Males	Responses
Agro-business	26%	Agro-business	23%
Food Processing	20%	Iron & Steel	11%
BFSI	14%	BFSI	10%
Building, Construction Industry	8%	Domestic work	10%
Education and Skill Development	7%	Building, Construction Industry	8%
Healthcare Services	4%	Handloom & Handicrafts	7%
Domestic Help	3%	Furniture and Furnishing	6%
Electronic & IT Hardware	3%	Auto and Auto Components	5%
Textile and apparel	3%	Media and Entertainment	4%
Others	15%	Others	8%

(n=360)

The median income expectation is around ₹14,175 per month. Around 23% of the respondents have expectations of monthly income greater than ₹20,000. Nearly 63% of the NEET category respondents were expecting a salary of below ₹15,000 per month.

Table 17 Aspired monthly salary of respondents

Salary / Category	NEET	Self Employed	Student	Waged/salaried employed
10,000 and below	41%	44%	16%	31%
10,001-15,000	22%	10%	27%	22%
15,001-20,000	20%	14%	31%	29%
20,001-25,000	10%	24%	9%	13%
25,001-30,000	1%	3%	8%	3%
Above 30,000	7%	3%	10%	1%
N=	92	86	90	90

Female respondents were largely reluctant to migrate. However, they were willing to move to places within their District for work. Males were more receptive for migration with 29% of the male respondents were willing to other places within the State for the employment.

Table 18 Preference for Work Location

	Female	Male
Within Hometown	61%	48%
Within District	62%	53%
Outside District but within Tamil Nadu	9%	29%
Outside Tamil Nadu but within India	1%	3%
Outside India	0%	1%

**Multiple response question, sum may exceed 100%*

Figure 20 Sources for Job Information

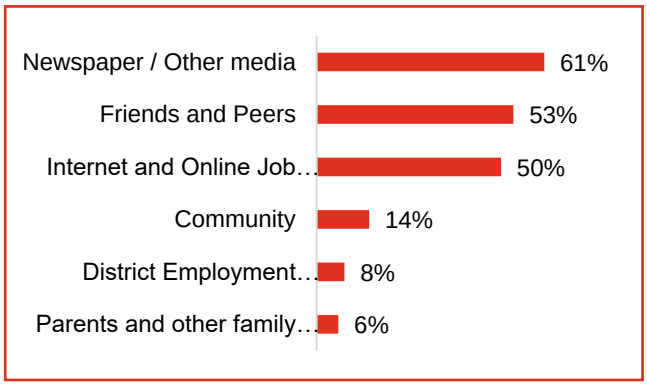
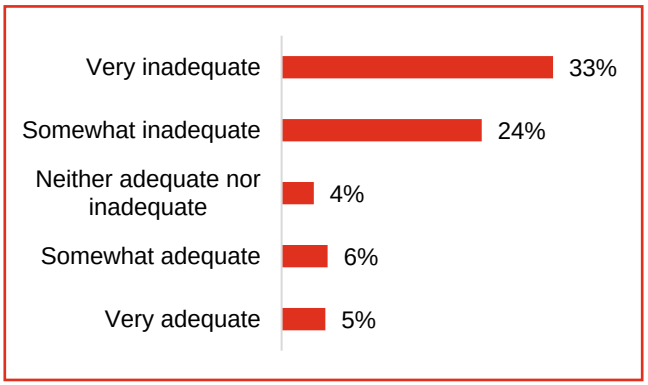


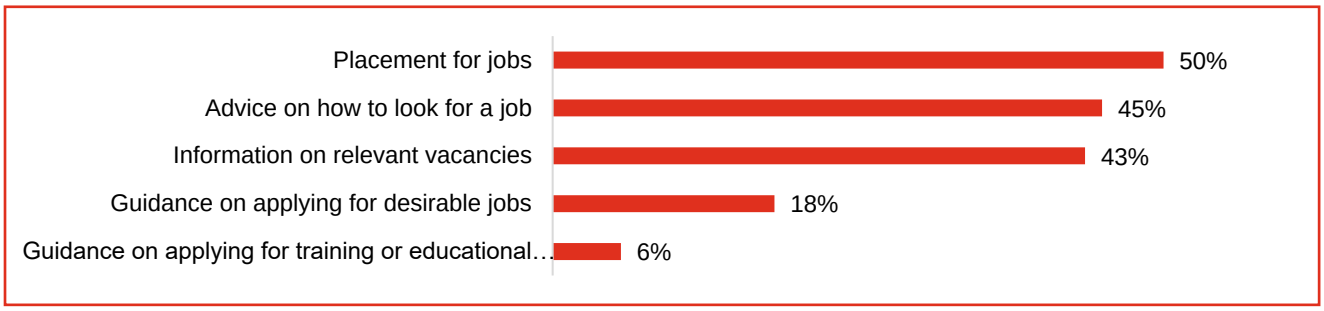
Figure 21 Perception on Counselling Services



Multiple response question, sum may exceed 100%, n=360)

The most important source for Job related information was newspapers and other media (61%). Friends and peers (53%) followed by internet and other online portals (50%) were the other key sources. The District employment office was identified as a source by only 8% of the respondents. 57% of the respondents felt that the counselling services were not adequate in meeting their requirements. The key inputs requested by the respondents from career counselling services include placement support (50%), advice on seeking jobs (45%), information on relevant vacancies (43%).

Figure 22 Key requirements from career counselling



Multiple response question, sum may exceed 100%, n=360)

2.6 Skill Training Preferences of Youth

About 14% of the respondents had any awareness of Govt. run vocational programs while only 3% had undergone any vocational training previously. 29% of the respondents were interested in undertaking any vocational training. Of these respondents 84% preferred the trainings to be short term certificate courses and 55% preferred the courses to be part time in nature. Though the respondents weighed most aspects of a training program as being important, they were mostly concerned with the practical exposure, quality of training and reputation of training service provider.

Table 19 Importance of different aspects of Skill Development

Factors	Very Important	Important	Somewhat Important	Unimportant
Training Content	56%	37%	6%	1%
Reputation of the training service provider	64%	29%	4%	4%
Reputation of the certifying body	54%	41%	3%	2%
Quality of training	66%	27%	4%	4%
Practical Exposure	69%	20%	8%	4%
Internship/apprenticeship quality	51%	39%	9%	1%
N	105			

3. Employers' and Other Stakeholders' Perspectives

3.1 Employers' 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.

The survey covered 46 Industries from 15 sectors, with major respondents belonging to the Iron, Steel and Other Metals (Fabrication and other Metal works) and Chemical & Pharmaceutical which are the highest contributors to the local economy. 42% of the industries were in operations for more than 10 years. 59% of the industries surveyed reported to be in the Small Industries category while 24% were from the large category while the rest were micro industries. The selection of the Industries was also based on the labour intensity of the sectors.

Figure 23 Distribution of Industries by Size

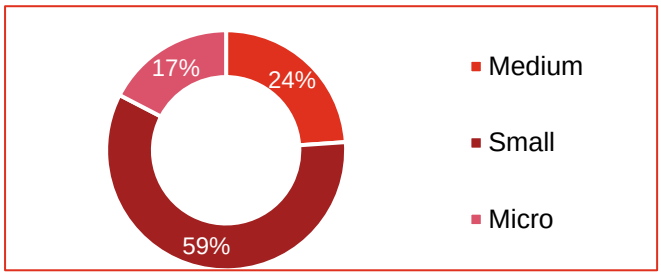


Table 20 Sector wise coverage of Industries in Employer Survey

S.No	Sector	Number of Industries Surveyed	S.No	Sector	Number of Industries Surveyed
1	Iron, Steel and Other Metals	14	9	Machinery Equipment	2
2	Chemical & Pharmaceuticals	10	10	Plastics	2
3	Auto and Auto Components	3	11	Power	1
4	Building Construction Painting Industry	2	12	Retail	1
5	Food Processing	2	13	Tourism Travel and Hospitality	1
6	Furniture and Furnishings	2	14	Rubber	1
7	Other Manufacturing	2	15	Paper and Paper Products	1
8	Textile and Apparel	2			

89% employers used reference from existing employees or known sources as a mode of recruitment. Local Community (39%) was the next common source of employees, followed by advertisement in newspapers. Campus placements were opted by 7% of the employers. The most common challenge the employers face on recruitment are candidates' disinterest and attitude (88%) and high local wages (65%).

Table 21 Modes and Challenges in Recruitment Process

Key Modes of Recruitment*		
S.No	Particulars	%
1.	Employee Reference	89%
2.	Local Community	39%
3.	Advertisements in Newspapers	11%
4.	Campus recruitment in ITIs/Polytechnic	7%
5.	Campus recruitment in Engineering Colleges	2%
6.	Recruitment/ Manpower Agencies	2%
7.	Social Networks	2%
8.	Others	9%

Key Challenges faced in Recruitment*		
S.No	Particulars	%
1.	Candidate Disinterest and Attitude	88%
2.	High local wages	65%
3.	Lack of requisite core skills	19%
4.	Nature of work requires strenuous physical labour	12%
5.	Lack of Prior Experience	7%
6.	Lack of requisite soft skills	5%
7.	Resistance by family to allow them to work	2%

**Multiple response question, sum may exceed 100%*

Figure 24 Average distribution of workers by Sex

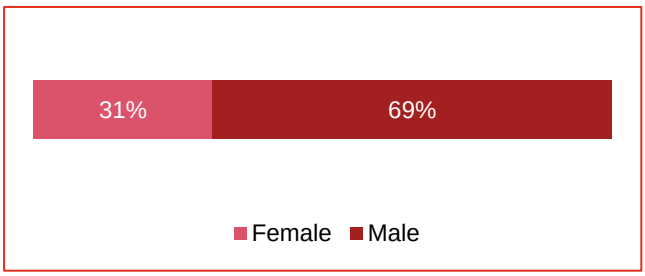
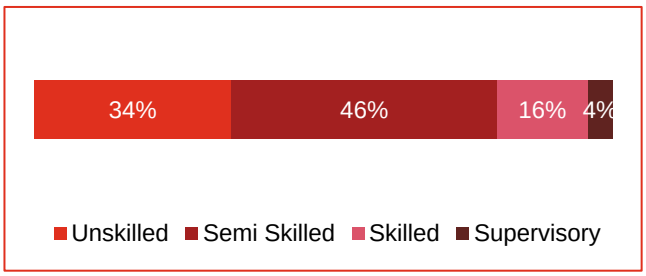


Figure 25 Distribution of workers by Skill Levels



The surveyed industries were largely dominated by a male workers. Semi-Skilled workers dominated the share of workforce (46%) followed closely by unskilled workers (34%). Only eight respondents affirmed the employment of migrant workers. They were either migrants from other parts of Southern Tamil Nadu or Eastern India.

The employers estimate 10-20% attrition annually from their workforce. Workers perception of lower wages was the dominant (89%) cause of attrition. The availability of better job opportunities and the candidates' disinterest were other reasons attributed to the high attrition rates. About 28% of the respondents feel there is high growth prospects while 14% of the respondents see high adoption of technology. Among these, 16% of the respondents have already initiated plans in adoption of technology.

Figure 26 Key causes of Attrition

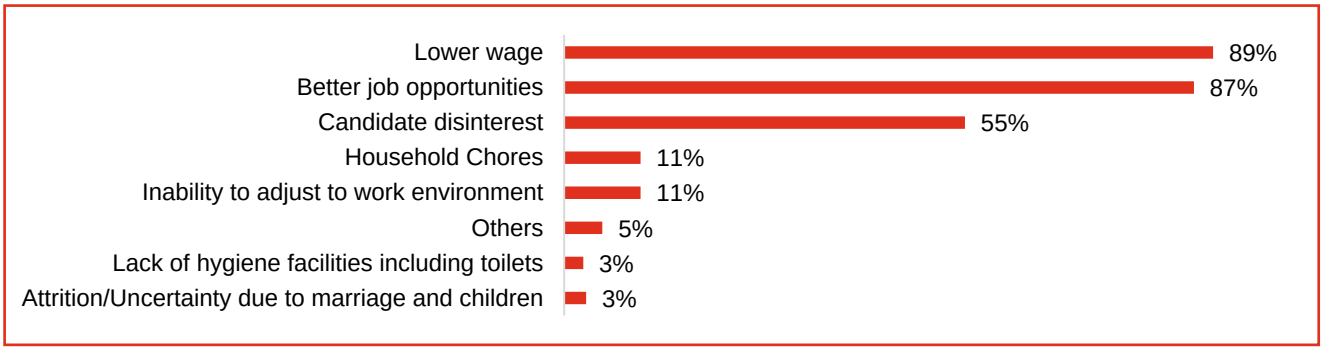


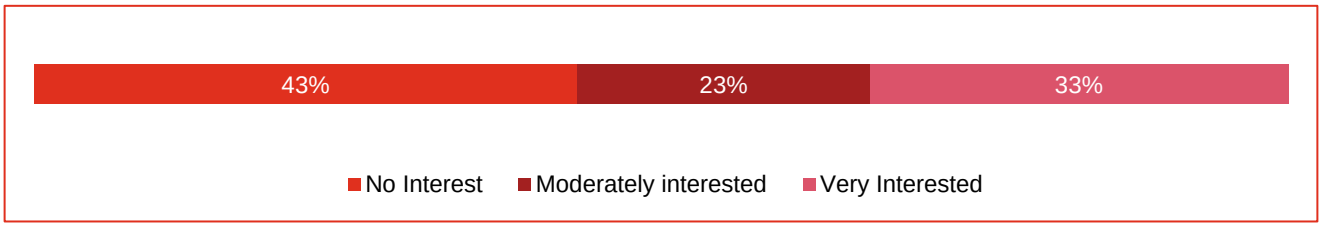
Table 22 Growth Prospects and prospective adoption of technology

Growth Prospects of Industry (n= 42)	%	Level of Technology adoption (n= 43)	%	Plans to adopt Technology	%
High	34%	High	16%	Yes	17%
Medium	63%	Medium	44%		
Low	3%	Low	19%	N=	46
		Can't Stay	22%		

Key Insights on Skill Development / Training

- 12 of the 46 respondents (26%) of the respondents were aware of any vocational programs run by the Govt.
- The highest awareness was about TNSDC (11%). There was low awareness about other schemes.
- Only 13 organizations had recruited from a vocational / skill training program in the previous 3 years
- The main challenge in recruiting from vocational / skill development programs has been the lack of adequate skills in recruits.
- 33% of the respondents were key in working with the Govt. on Skill Development Programs

Figure 27 Interest in working with the Govt. on Skill Development



3.2 Other Stakeholders' Perspective

The study also included in-depth interviews of more than 30 stakeholders including the line departments involved in the Skill Development, Livelihood and Employment and Industrial development related activities, Industrial Associations, Vocational Education and Skill Development institutions among others. Focus group discussion under the aegis of the Joint Director of Training, Tirunelveli and the District Collector were held in Tirunelveli. The key areas of discussions are listed below:

S.NO	Topic	Responses
1.	Industrial Growth	• A major challenge to the industrial growth in the district is the sensitive ecology. • The match factories of Kovilpatti have faced severe attrition owing to health concerns of the workers. • The SEZs at Gangaikondan and Nanguneri have seen slow offtake from Industries and require greater thrust from the Govt. to push the investments. • There is demand emerging from a service sector economy in terms of retail, travel and tourism. • Industries in textile and apparel are moving into the southern districts owing to the high labour costs in Western Tamil Nadu. • Food Processing and Chemicals and Petrochemicals hold a good potential in the coming years. • There is considerable potential in education sector especially as Trainers and Teachers in Soft Skills and English language.
2.	Labour Supply	• The Southern Districts of Tirunelveli, Thoothukudi, Kanyakumari and Virudhunagar have a fluid labour force, even commuting daily for the purpose of work across district limits. This movement is channelled largely through the city of Tirunelveli. • The relative lack of industrialisation in the southern districts of Tamil Nadu has made it a source for cheaper migrant workers for Industries and establishments in major cities like Chennai and Coimbatore. • According to the Tamil Nadu Migration Survey-2015, Tirunelveli is the highest among estimated out migrants (intra national / intra state migrants). Four of the top ten taluks with the highest number of out migrants were part of the Tirunelveli district. • The Tirunelveli region is said to contribute to maximum number of Tamil migrants in Mumbai. • This has caused a shortage of workers for the local industry, especially in the skilled worker category including students from ITIs. • The youth in the southern districts attain higher levels of education when compared to the rest of the State. This also results in overwhelming aspiration for white collared or public sector job, especially among graduates. • The manufacturing or food processing sectors often lose out on workers to retail or trade. • The youth are also unwilling to undertake physically strenuous activities.
3.	Women Employment	• The Apparel Industries in Puthiamputhur (Thoothukudi district) outsource job work to women collectives in rural areas of Tirunelveli. The young women often see employment in the textile & apparel sector as temporary. The industry not only gives them a life skill in tailoring, it also provides them an income to support their families or save up for their weddings. Though they might drop out of the labour force in the immediacy of their wedding, they often re-join in times of economic need. Hence there is a constant churn of the workforce in the sector's female employees. • This is being adopted in engineering trades, retail as well. Large Industries often on board females as trainees, provide training, accommodation and employment

		for 3-4 years. Many females tend to drop out after this period and the industries recruit a fresh batch of workers. • These were hitherto considered male dominated trades. There is interest in agro-business and food processing sectors among the women in the district, especially in Fisheries and dairy related roles. This can be tapped into through targeted programs.
4.	Youth Aspirations	• The aspirations of the youth are largely oriented towards white collared jobs, especially in the IT-ITES, Media & Entertainment and BFSI sectors. • However, even in these sectors, there is low preference for the jobs with field work like Insurance agents. There is an aspiration to live in the bigger cities among the youth, and hence there is considerable migration to cities like Chennai, Bangalore, and Coimbatore. • There is negative perception in the community about blue-collared jobs.
5.	Training & Skill Development	• The awareness about skill development programs was moderate, with CTS and ATS schemes being popularly known. • There is lower awareness about other short term skilling programs like PMKVY and TNSDC run programs. • The quality of the trainees are below Industry standards and the additional training is provided by the employers. A substantial share of students don't even pass the course, especially in Tirunelveli. • There is also a trend among the institutes to tie up with larger companies in the larger cities for placements and apprenticeships. This deprives the local Industries from quality labour. These students, do not acquire all round skills from these roles due to typified jobs. Larger industries tend to not recruit these trainees upon the completion of apprenticeship period. These trainees aren't equipped to handle the demands of the MSME industries, creating a mismatch in the labour market. • The private sector is keen to take on Apprenticeships, however they would require better operational support from the Dept. of Training in terms of mobilisation, reimbursements and incentivising the students to stay on their job for longer duration.
6.	Traditional Sectors	• Tirunelveli is home to traditional industries like the Mat-weaving Industry in Pattamadai, Palm Leaf Handicrafts, and Brass Lamps. The recent plastic ban has created a potential for alternative products, especially through palm leaves and bamboo. • The sectors are not aspirational for youth and there is a threat of loss of knowledge about these skills over time. There is a requirement from Govt. Support in ○ **Knowledge Gathering:** Development of qualification packs and national occupation standards for existing job roles, recognition of prior learning to certify experienced artisans ○ **Marketing Support:** Provide Marketing support through linkages to market, credit support and branding through organizations like Poompuhar.
7.	Automation	Though technological upgradation is seen across sectors, labour saving automation is largely in the Chemicals Sector. However, it replaces unskilled workers. The demand for skilled workers will continue to be in requirement.

Skill Gaps

Soft Skills especially communication skills, professionalism, flexibility and interpersonal skills were found to be wanting among the existing workers by most of the stakeholders. In the services sector, the conversation skills and Entrepreneurial skills in English were found wanting in the BFSI sectors. There is increased investments collaborations by national and international companies in the Industrial sector which value work ethics, professionalism and timeliness among other things. This is a major challenge to inculcate during employment. The Industrial sector would also require greater tenacity, ability to innovate.

Specific Skill Requirements include

- Supervisory & design roles in the Food Processing units, Textile and Apparel Sectors, Chemical and Petrochemical Sectors especially in the use of latest standards for quality assurance
- Supervisory roles in the textile mills to manage entry level skilled workers in the apparel units in Kovilpatti and Puthiamputhur.
- Motor Vehicle Mechanics especially focussing on the Heavy vehicle segment with computer aided servicing with the adoption of BS-VI
- Adequate English Communication Skills Education sector.
- Receptionists, Tour Guides, Adventure Sports, Cab Drivers among others in the Tourism & Hospitality sector. There is a requirement to learn multiple languages especially, English and Indian regional languages.
- Insurance Agents & GST Accountants are needed across sectors owing to the recent reforms.

4.Skill Gap Analysis

The district of Tirunelveli is witnessing increased industrialization and urbanization. These are affecting the incremental demand[22] for skilled workforce in the district, where as per our methodology, Manufacturing, Education, Health & Social Work, Construction and Trade are the leading sub sectors for employment. However, given the present trends in the supply of skilled workers, there is an expected gap of 80,432 workers by 2025.

Table 23 Sector wise Incremental Demand for Skilled and Semi-Skilled Workers between 2019 and 2025

Sector	Incremental Demand for Skilled Workers			Incremental Demand for Semi Skilled Workers			Total Demand
	2019-21	2022-25	Total	2019-21	2022-25	Total	Total
Agriculture	(1,262)	(1,629)	(2,891)	(8,834)	(11,402)	(20,236)	(23,127)
Allied Activities of Agri.	576	876	1,452	4,031	6,132	10,164	11,615
Mining and quarrying	(117)	(132)	(249)	(195)	(219)	(414)	(663)
Manufacturing	5,245	7,406	12,651	10,490	14,813	25,303	37,954
Utilities (Electricity / Gas)	(166)	(195)	(361)	(333)	(390)	(723)	(1,084)
Construction	1,435	2,149	3,585	3,589	5,373	8,962	12,546
Trade	752	1,054	1,806	2,603	3,647	6,250	8,055
Tourism & Hospitality	494	693	1,187	958	1,342	2,300	3,487
Logistics	433	598	1,031	1,039	1,435	2,474	3,504
Communication (IT /ITES)	1,334	2,088	3,422	667	1,044	1,711	5,133
BFSI	1,482	2,282	3,764	741	1,141	1,882	5,646
Real estate and business services	252	373	625	631	932	1,563	2,189
Public Administration	130	177	308	104	142	246	554
Education, Health & Social Work Activities	4,136	6,257	10,392	3,309	5,005	8,314	18,706
Arts, entertainment and recreation	986	1,450	2,436	789	1,160	1,949	4,384
Other Services	4,873	7,163	12,035	3,898	5,730	9,628	21,664
Skill Demand	22,129	32,564	54,694	32,848	47,896	80,745	1,35,438
Skill Supply	7,868	10,491	18,359	15,706	20,941	36,647	55,006
Skill Gap	14,261	22,073	36,334	17,143	26,955	44,098	80,432

[22] 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. Key Study Findings and Recommendations

5.1 District Action Plan

The district level training projects below suggests the potential areas for skill development interventions and job opportunities in the future. It identifies the potential job roles mapped with NSQF linked QPs and the potential of employment opportunities over the next five 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

S.No	Sector	Trades	Target (People)	Budget (₹)
1.	Textile & Apparel	• Cutting Supervisor • Knitting Machine Operator • Fabric Checker • Quality Checker • Industrial Sewing Machine Operator	3,000	₹5.3 Crores
2.	Retail & Wholesale	• Sales Associate • Team Leader • Store Manager • Cashier	3,750	₹5.54 Crores
3.	Construction	• Plumber • Supervisor - Roads & Runways • Quality Technician • Fabricator • Construction Welder • Construction Electrician • Green Jobs – Rainwater Harvesting • Supervisor – Fabrication	3,200	₹10.15 Crores
4.	Food Processing	• Food Dehydration Technician, • Quality assurance Manager/Lab Technician • Food microbiologist • Food Processing Worker • Fish Value Added Products • Processed Food Entrepreneur	3,600	₹4.7 Crores
5.	Agriculture & Food Processing	• Sustainability , Modern Fishing & Safety Training • Boat & Ship Repair • Export based training for fisherman cooperative	2,400	₹3.33 Crores
6.	Training for Travel and Tourism	• Tour Guides • Life Guard • Boat Jetty In-charge • Counter Sales Executives • Adventure sports • Tour Guide/Manager • Travel Consultant, Counter Sales Executive, Tour Vehicle Drivers	1,000	₹5.05 Crores
7.	(i) IT/ ITES (ii) Tourism & Hospitality (iii)Trade	• Training for Soft Skills and in spoken Language including English	4,000	₹1.86 Crores

S.No	Sector	Trades	Target (People)	Budget (₹)
8.	Education & Skill Development	• Training of Trainers Soft Skills and English for Students • Training of Trainers for in Apparel / Textile And other key sectors	1,000	₹2.31 Crores
9.	Chemical, Petrochemical	• Chemical Quality Assurance • Lab Technician • Machine Operator – Tool Room	1,000	₹1.3 Crores
Total			**22,950**	**₹37.66 Crores**

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.

Training Project 1:

Name of the Project: Training in Textile and Apparel sector							
Key Economic Drivers: • Expected investments through GIM – of Rs. 200 Crores • Among the highest ranked sectors by Credit Offtake with nearly 10% share • 2nd highest contributor for GVA in 2104-15 and one of the largest employer							
Key Partners: Textile & Apparel SSCs, Puthiamputhur (Thoothukudi) Cluster							
Job Roles:	**NSQF Level**	**NSQF Code**	**Cost Category**	**Duration of Training**	**Target Group**	**Training Target (People)**	**Cost of Training (₹ Crores)**
Cutting Supervisor	5	AMH/Q0610	1	320 hours	10th – 12th Class Pass outs Women oriented	250	₹0.44 Crores
Knitting Machine Operator	4	TSC/Q4101[23]	1	320 hours		1,000	₹1.76 Crores
Fabric Checker	4	TSC/Q 2301	1	320 hours		250	₹0.44 Crores
Quality / Packing Checker	4	TSC/ Q 0501	1	320 hours		250	₹0.44 Crores
Industrial Sewing Machine Operator	4	AMH/Q0301	1	280 hours		1,250	₹1.92 Crores
Total Training Costs						3,000	₹5.00 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.30 Crores
Total							₹5.30 Crores
Key Considerations: A key requirement would be to provide adequate on the job training in the various mills around the district. These job roles are particularly open to women and a supervisory role may cater to their aspiration.							

[23] Closest QP used, training to be for overall knitting operations

Training Project 2:

Name of the Project: Training Program in Retail Sector

Key Economic Drivers:

- Estimated Incremental Demand of 6,2500 skilled and semi-skilled workers
- Most Dominant sectors in the Credit offtake in the district as per RBI data between 2014-14 and 2016-17 with 40% in Retail and Wholesale Trade
- Expansion of retail chains from other districts
- GDDP output growth at 5% between 2011-12 and 2016-16

Key Partners: Leading Retail Chains like Chennai Silks, Pothys, Saravana Stores etc.

Job Roles:	NSQF Level	NSQF Code	Cost Category	Duration of Training (Hours)	Target Group	Training Target (People)	Cost of Training (₹ Crores)
Retail Sales Associate	4	RAS/Q0104	2	280	Class XII / Graduates	3000	₹4.1 Crores
Retail Team Leader	5	RAS/Q0105	2	350		300	₹0.51 Crores
Retail Store Manager	7	RAS/Q0107	2	350		150	₹0.26 Crores
Retail Cashier	2	RAS/Q0102	2	200		300	₹0.29 Crores
Total Training Costs						3,750	₹5.16 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.38 Crores
Total							₹5.54 Crores

Key Considerations:

Can focus on Women in the outskirts of the Tirunelveli City.

Considerable demand for trained workers all across the state would allow trainees to be ready for employment.

Training Project 3:

Name of the Project: Training Program in Construction

Key Economic Drivers:

- Infrastructure thrust in the form of Airport Expansion, Port Expansion and Highways Expansion in the District
- Several infrastructure investments in the anvil including Smart City Program, Highway Upgradation
- 19% growth in Urban Population in the previous decade. This is going to drive the demand for housing in the urban areas.
- Incremental Demand of More than 8,000 Workers till 2026
- Aspired by around 8% of the youth respondents in aspiration survey

Key Partners: Engineering Colleges ,Polytechnics, Green Jobs SSC, Construction SSC

Job Roles:	NSQF Level	NSQF Code	Cost Category	Duration of Training (Hours)	Target Group	Training Target (People)	Cost of Training (₹ Crores)
Plumber General	4	PSC/Q0110	1	700	Class X Pass outs	500	₹1.92 Crores
Supervisor - Roads & Runways	6	CON/Q1004	1	560		150	₹0.46 Crores
Quality Technician	6	CON/Q0403	1	560		150	₹0.46 Crores
Fabricator	4	CON/Q01206	1	560		600	₹1.84 Crores
Construction Welder	6	CON/Q1252	1	560		600	₹1.84 Crores
Construction Electrician	4	CON/Q0603	1	600		600	₹1.98 Crores
Green Jobs – Rainwater Harvesting	3	QP to be developed in addition to PSC/Q0104	1	400		600	₹1.32 Crores
Total Training Costs						3,200	₹9.83 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.32 Crores
Total							₹10.15 Crores

Key Considerations:

Nil

Training Project 4:

Name of the Project: Training Program in Food Processing							
Key Economic Drivers: • 15% CAGR in Credit offtake in the sector between 2013-14 and 2016-17. 4th largest industry in terms of total offtake. • Aspired by more than 20% of the female respondents. • Investments of More than ₹2,000 Crores Investment in the Southern Districts for Food Processing Parks on the anvil • Around 6,800 people are involved in fishing and allied activities[24].							
Key Partners: Fisheries College							
Job Roles:	**NSQF Level**	**NSQF Code**	**Cost Category**	**Duration of Training (Hours)**	**Target Group**	**Training Target (People)**	**Cost of Training (₹ Crores)**
Food Dehydration Technician	4	FIC/Q0105	1	240	Class X Pass	200	₹0.26 Crores
Quality assurance Manager/Lab Technician	6	FIC/Q7602	3	240[25]	Graduates	200	₹ 0.21 Crores
Food microbiologist	6	FIC/Q7603	3	240	Graduates	200	₹ 0.21 Crores
Food Processing Worker	2	FIC/Q9005[26]	1	240	Class X Pass	1,000	₹ 1.32 Crores
Fish Value Added Products	4	FIC/Q4001[27]	1	240	Class X Pass	1,000	₹ 1.32 Crores
Processed Food Entrepreneur	5	FIC/Q9001	3	240	Class X Pass	1,000	₹ 1.03 Crores
Total Training Costs						3,600	₹4.34 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.36 Crores
Total							₹4.70 Crores
Key Considerations: Nil							

[24] Fisheries census , 2010
[25] Sector Average used
[26] Closest QP - Industrial Production Worker – Food Processing to be updated
[27] Closest QP- Fish and Sea Food Processing Technician to be updated

Training Project 5:

Name of the Project: Training Program in Fishing and Allied (Agriculture)

Key Economic Drivers:

- Prominence of marine fishing
- Purse fishing activities produce large amounts of by-catch (unintentionally caught fish)
- Around 6,800 people are involved in fishing and allied activities[28]. This provides a sizable population to conduct short term trainings for value addition.
- Potential for bother Freshwater and Brackish water aquaculture especially among farmers who can add to their income through diversification.

Key Partners: Fisheries College

Job Roles:	NSQF Level	NSQF Code	Cost Category	Duration of Training (Hours)	Target Group	Training Target (People)	Cost of Training (₹ Crores)
Sustainability , Modern Fishing & Safety Training[29]	4	AGR/Q5106	1	240	Class V/ VIII Pass	2,000	₹2.64 Crores
Boat & Ship Repair[30]	4	AGR/Q5103	1	240			
Export based training for fisherman cooperative	-	QP Not available; to be developed	1	240[31]			
Freshwater Aquaculture	4	AGR/Q4905	1	200		400	₹0.45 Crores
Brackish water Aquaculture Farmer	4	AGR/Q4906	1	210			
Total Training Costs						2,400	₹3.09 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.24 Crores
Total							₹3.33 Crores

Key Considerations:

The intention to catch large quantities of fish, often results in following of unsustainable and destructive methods of fishing. Fishermen need to be trained to move from a capture-based approach to a culture-based one, thereby resulting in an increase in fish population as well. Training can be given on spotting fish, safety mechanisms to be followed including basic navigation, reading the VPS (Vehicle Positioning systems) and basic health and hygiene training on handling the fish post-harvest. In addition, boat repair, both on-shore

[28] Fisheries census , 2010
[29] Closest QP - Fishing Equipment Technician (Electronics) used
[30] Closest QP - Fishing boat mechanic used
[31] Based on Sector average

and off shore repair can support the requirements of more than 3000 boats in the district. Threats of crossing international boundaries and borders are a constant issue in the northern blocks of the district. Training can include these aspect as well.

Training Project 6:

Name of the Project: Training Program in Tourism & Hospitality and Sports							
Key Economic Drivers:							
• Tirunelveli has plans on the anvil for the development of tourism circuit through the Swadeshi Darshan Scheme. There is considerable demand • Estimated Incremental demand of 3,500 workers till 2025 • 27% CAGR in Credit Offtake between 2013-14 and 2015-16 • Ecotourism is one of the priority sectors of the Invest Tamil Nadu program							
Key Partners: Industry Association, T&H SSC, Department of Tourism							
Job Roles:	**NSQF Level**	**NSQF Code**	**Cost Category**	**Duration of Training (Hours)**	**Target Group**	**Training Target (People)**	**Cost of Training (₹ Crores)**
Tour Guides	4	THC/Q4502	3	420	Class XII	200	₹ 0.36 Crores
Life Guard-Pool & Beach	4	SPF/Q1104	2	250	Class VIII	100	₹ 0.12 Crores
Boat Jetty In-charge	5	THC/Q7601	3	280	Class XII	100	₹ 0.12 Crores
Counter Sales Executives	4	THC/Q2903	2	240		100	₹ 0.12 Crores
Adventure sports[32]	5	THC/Q4517	3	250		100	₹ 0.11 Crores
Tour Vehicle Drivers	4	ASC/Q 9714 ASC/Q 9702 THC/Q4202	3	360	Class VIII	400	₹ 0.62 Crores
Total Training Costs						1,000	₹1.44 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.10 Crores
Total							₹1.54 Crores
Key Considerations: Department of Tourism is seeking a plan for establishing formal certification training and recognition of tourist guides to ensure appropriate services. There is also scope to provide additional trainings to Shopkeepers, Hotels, Restaurants, and Auto Drivers as “Tourism Mitras” in popular tourist destination to establish the brand of the state being a hospitable tourist destinations.							

[32] Closest QP-NOS – Bunjee Jumping Selected, requires modification and upskilling

Training Project 7:

Name of the Project: Training for Soft Skills and English Communication							
Key Economic Drivers: • Lack of communication skills has been identified as a major contributor towards unemployment of the youth in District							
Key Partners: British Council							
Job Roles:	**NSQF Level**	**NSQF Code**	**Cost Category**	**Duration of Training (Hours)**	**Target Group**	**Training Target (People)**	**Cost of Training (₹ Crores)**
Training for Soft Skills and in spoken English	4	MEP/ N9995. & MEP/ N9993	3	180 hours[33]	Graduates who have completed courses from Degree Colleges, Engineering Colleges	4,000	₹3.10 Crores
Total Training Costs						4,000	₹3.10 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.40 Crores
Total							₹3.50 Crores
Key Considerations: Soft skills especially, communication skills, interpersonal skills, work ethics etc. has been identified as a major contributor towards the low employability for the youth. In addition, the IT-ITES Sector / Tourism & Hospitality sectors have highlighted the requirement for good communication skills in English. Kerala's Additional Skill Acquisition Program and Andhra Pradesh's Employability Skill Centers are models that have similar components of Soft Skill and English Communication							

[33] Hours based on addition of QPs - MEP/ N9995. & MEP/ N9993, and feedback from Industry

Training Project 8:

Name of the Project: Training for Chemical Sector (and Capital Goods)							
Key Economic Drivers: • Investments more than Rs 1,000 Crores awaited in the Southern Districts in Chemical & .Petrochemicals in the Southern District. • Though workforce of many companies has considerable share (50%) of immigrant workers, there is shortage in the skilled worker / supervisor category with understanding of machines							
Key Partners: CIPET							
Job Roles:	**NSQF Level**	**NSQF Code**	**Cost Category**	**Duration of Training**	**Target Group**	**Training Target (People)**	**Cost of Training (₹ Crores)**
Maintenance of Machinery – Technician	4	CPC[34]/ Q 3004	1	Classroom Training 320 Hours OJT 480 Hours	Graduates who have completed courses from Degree Colleges, Engineering Colleges	500	₹1.10 Crores
Machine Operator – Tool Room	4	CSC/ Q 0502	1			500	₹1.10 Crores
Total Training Costs						1,000	₹2.20 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.10 Crores
Total							₹2.30 Crores
Key Considerations: The sector faces severe challenge in finding the sufficient skilled workers on advanced machinery required by international clients in the manufacturing sector, especially as CNC operators. There is an urgent requirement to upgrade the infrastructure as well as the curriculum of ITIs/ Polytechnics to meet the industry requirement. This can be prepared in consultation with CIPET, Chennai. The lack of experience in work environment is a major drawback in the hiring of students from such programs. The classroom training can be a general course, later customized to industry requirements during the OJT phase. Though the companies in the cluster are willing to take up OJT, it will be necessary to support the companies with a stipend pay to the student barring, which he/ she could drop out of the apprenticeship process							

[34] Due to a lack of a dedicated Sector Skill Council, relevant courses have been mapped with the NSQF aligned program in CIPET and

Training Project 9:

Name of the Project: Training of Trainers Center							
Key Economic Drivers: • The southern district have the potential to become Education hub of the state with the concentration of school and higher education institutions and vocational training centres in the state outside of Chennai Metropolitan area. • Lack of quality trainers have been highlighted for skill trainers as well as the lack of soft skills among students passing out of education institutions across the district and its vicinity.							
Key Partners: British Council, Manonmaniam Sundaranar University							
Job Roles:	**NSQF Level**	**NSQF Code**	**Cost Category**	**Duration of Training**	**Target Group**	**Training Target (People)**	**Cost of Training (₹ Crores)**
Training of Trainers Soft Skills and English for Students[35]	6	ASAP-CET	3	160 hours	Graduates who have completed courses from Degree Colleges, Engineering Colleges	1,000	₹1.2 Crores[36]
Total Training Costs							₹1.2 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.1 Crores
Total							₹1.3 Crores
Key Considerations: Soft skills especially, communication skills, interpersonal skills, work ethics etc. has been identified as a major contributor towards the low employability for the youth. In addition, the IT-ITES Sector / Tourism & Hospitality sectors have highlighted the requirement for good communication skills in English. Kerala's Additional Skill Acquisition Program has developed a training curriculum for Soft Skills and English. This could be used as a draft for the curriculum. The Center would cater to the requirements of other neighbouring districts.							

[35] Based on Communicative English Trainer Q File - https://www.nqr.gov.in/qualification-title?nid=3223
[36] Cost Calculated as ₹12,000 per training as per average ToT Trainings by SSCs

5.2 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:

Convergence:

There is an urgent need for several departments in the state engaged in Education, Vocational Education, Industrial Development, Agriculture and Allied activities, among others to converge their efforts. The parallel implementation of Skill trainings by several departments lead to the following (i) Misallocation of training capacity with multiple programs offering the same trades. (ii) Duplication of Beneficiaries without a de-duplicating mechanism like Aadhaar (iiI) Dip in Quality Assurance owing to varied standards, target groups and monitoring frameworks. The interactions further revealed that, there is a coordination would be required at a larger scale across ecosystem across the Southern Districts of Tirunelveli, Thoothukudi, Kanyakumari and Virudhunagar, owinf to the fluid labour force actively commuting between towns for the purpose of work.

The ITI in Pettai has developed advanced training lab in partnership Maruti Suzuki for training in automotive sector. Initiatives like these could be further strengthened especially with larger Industries in the upcoming SEZs and those in Thoothukudi. The Institute Management Committees (IMCs) should be further strengthened apart from constituting necessary district and regional forums to dynamically adapt curriculum through Industrial feedback.

There is a requirement for a Labour Market Information System (LMIS) which can be used to ensure a better participation between Industry, job Seekers and the Vocational Education System.

Awareness generation:

The youth aspire towards Public Sector and white collared jobs. The aspired monthly income amongst youth was much higher than the prevailing wages youth engaged in economic activity presently earn. There is mismatch in perception and aspirations of youth about the salaries/wages, working conditions, career growth prospects, etc. Hence there is a requirement for initiating counselling on career prospects and market related counselling at the secondary levels of education, continuing through higher levels of education.

Industry Experience:

It is seen that the earning potential among graduates does not vary significantly from Diploma / ITI holders over their career path. To enhance the value of the programs at the graduate level, it is necessary to strengthen the exposure to work environments among both technical and non-technical programs through mandatory hands-on training at appropriate organizations in the industrial and services sectors. In addition, it is necesssary to ensure trainers are also abridge of the latest trends in the Industry through special training programs.

Augmenting Labour at MSMEs:

MSMEs have highlighted the unavailability of local labour due to large scale migrations of skilled workers from the Southern Districts. The Apprenticeship scheme or wage subsidies on the lines of MGNREGA could be designed for supporting the local Industry to channelize labour towards them. Enhancement in the stipends or a hybrid model (based on the period of deployment or Government financial support or any other) to improve participation of MSMEs and balance the deployment at large units. The MSMEs have also faced operational constraints with attrition rates. It is suggested, that a Direct Benefit Transfer system, with direct incentives to the trainee to complete the training at the MSMEs be brought in as part of the design.

Market linked Trainings:

There is a requirement for diversity in sectors as well as training in higher levels of the NSQF including at supervisory roles and those with higher technological requirements. It is seen that, even in ITIs and polytechnics, the exposure to advanced machinery or content is less than sufficient to make the candidates job ready. Chemicals, Food Processing, and Education sectors are key areas of requirement.

Fostering Traditional Sectors:

Tirunelveli is home to traditional industries like the Mat-weaving Industry in Pattamadai, Palm Leaf Handicrafts, and Brass Lamps. It is necessary for the Govt. of Tamil Nadu to promote the traditional skill-based occupations by formalising the traditional skills and ensuring market access/development through linkages. TNSDC in partnership with agencies like Tamil Nadu Handicrafts Development Corporation and Co-optex, KVIC and traditional clusters could work on the following: a) developing Qualification Packs & Curriculum; b) carryout RPL

programs for existing workforce (at an Artisan, Trainer, Master Trainer and assessor levels; c) Conduct trainings especially for the next generation of the traditional communities through a formal process; and d) promote entrepreneurship through programs of the state and central governments

5.3 Case Studies

Traditional Industries

'Pattamadai Pai' - Reed Mats[37]

Figure 28: Pattu Mat Weaving

Reed mats are manufactured in and around the town of Pattamadai. The town is situated on the Tirunelveli Ambasamudram Road, 23 Km west of Tirunelveli. The grass – korai, also grows in the surrounding areas along the banks of the Thamirabharani river. The mats originally continue to be woven using handlooms, resisting the trend of mass industrialised production. The industry, highly localised and community driven provides livelihood to at least a 100 families in the vicinity. The speciality of the mats made in Pattumadai are its silky feel (giving it the moniker "Pattu Pai" or "Silky Mat") and intricate design. The speciality of the Pattumadai Pais are Tamil weddings, whereby it is a tradition to gift the newlywed couple with a mat. In recent years, these include the names of the couple apart from having elaborate designs. This is enabled by a lengthy process of processing the grass in running water and an elaborate setting up of the hand looms to match intricate design requirements. The mats cost anywhere between ₹800 to ₹5,000 depending on the finesse and artistry involved.

This comes at a great opportunity cost for the community which sees greater hourly returns even from manual labour. Hence, the workforce has been largely confined to housewives in the town. The Industry faces extreme variance in revenue owing to lack of proper market linkages. Though the art is being handed over to the next generation, the active workforce is largely ageing. The industry has faced challenges in recent times, korai cultivation has been affected by water shortage issues, changes in the price of produce and mats, fluctuations in market demand, etc.

Figure 29 Palm Leaf Handicraft

'Palm Leaf Handicrafts' – Karaichutu Pudur

The coastal region of the Tamil Nadu is home to a large number of palm trees. The dried leaves of the palm trees are widely used in the state for various purposes including building temporary shelters for social gatherings. In the coastal belt of Tirunelveli, the local community of women use these to produce handicraft products including baskets, boxes, trays, bins, purses, toys, etc. Karaichutu Pudur which lies 60 km from Tirunelveli, near the town of Thisayinvilai. The products are made by the local community of women, nearly 50 in number. Operating as both individuals and as a collective, a turn-over in Lakhs is generated every year. The skills are passed down through generations of women. The demand for the bags and baskets have only increased since the ban on plastics in the state. The orders for the products come from as far as Karnataka. However, there considerable uncertainty in gauging or expanding to new markets owing to lack of communication. Largely the workers see this as an additional income to support the family, and not the primary source of livelihood. Hence, they are reluctant to commit to the production owing to assured returns in unskilled work and reducing the production of this. Though, the women are supported through some initiatives of the National Rural Livelihood Mission, a concrete market linkage is required for sustainability of the mission.

If challenging conditions, highlighted above are rectified through sustained marketing support, technological support to farmers, and capacity-building for efficient production, mat weaving can continue and gain strength as a lucrative livelihood.[38]

[37] Picture Courtesy: Adarsh Chandok Youtube

[38]

Bringing Back Women into the Labour Force

Background:

The National Rural Livelihood Mission and the Tamil Nadu Women Development Corporation (have been training women in Tailoring for a large number of years under various schemes. As highlighted earlier in this report, the participating women saw this largely as a life skill and entirely as a means of livelihood. In recent years, several Apparel and Textile units have been established in the vicinity of Tirunelveli and Thoothukudi to tap the cheaper labour costs of the southern districts. These firms were open to outsource certain job works to community of tailors in their vicinity. Puthiyamputhur in Thoothukudi district, a town very close to Tirunelveli is major cluster for such work in the Apparel sector. The local arm of TNWDC, sought to utilise this demand in setting up production centers for women to benefit from this in the vicinity of their homes.

The Initiative:

Since 2017-18, through the support of field personnel, the district TNWDC, under the Rurban Mission unit was able to set up production centers in Mannur, near the suburb of Pettai in Tirunelveli city. The facility has been provided with a high quality equipment. A collective (Jeyam Garment Production Unit) of more than 20 women were formed. This collective who had previously undergone tailoring training were given upskilling required to work on Industry grade machines. The TNWDC was then able to negotiate and convince the Apparel factories to give orders to this collective. With training and sufficient experience, the women are able to meet the requirements of several leading apparel manufacturers in the vicinity. The unit makes turnovers in the Lakhs providing significant income to the participating women. The women work around 8 hours a day with a target of around 10 upper garments per day. Plans are on the anvil to increase the production capacity.

Figure 30 Garment Production Unit, Mannur

Innovation:

Women in the India see lower participation in the labour force[39]. Urbanisation, family and social views, and pressure related to working outside of their homes were major challenges to increase their participation. By bringing the production centers to the villages, the women were able to engage in economic activity without compromising on their personal commitments and family.

[39] https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-new_delhi/documents/genericdocument/wcms_342357.pdf

Appendix -1

A1. Methodology for Block Selection for Youth Aspiration survey

Sampling Design for Youth Survey

A total of 360 youth was 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 Block

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 Ariyalur selected for the survey. The methodology is explained below:

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

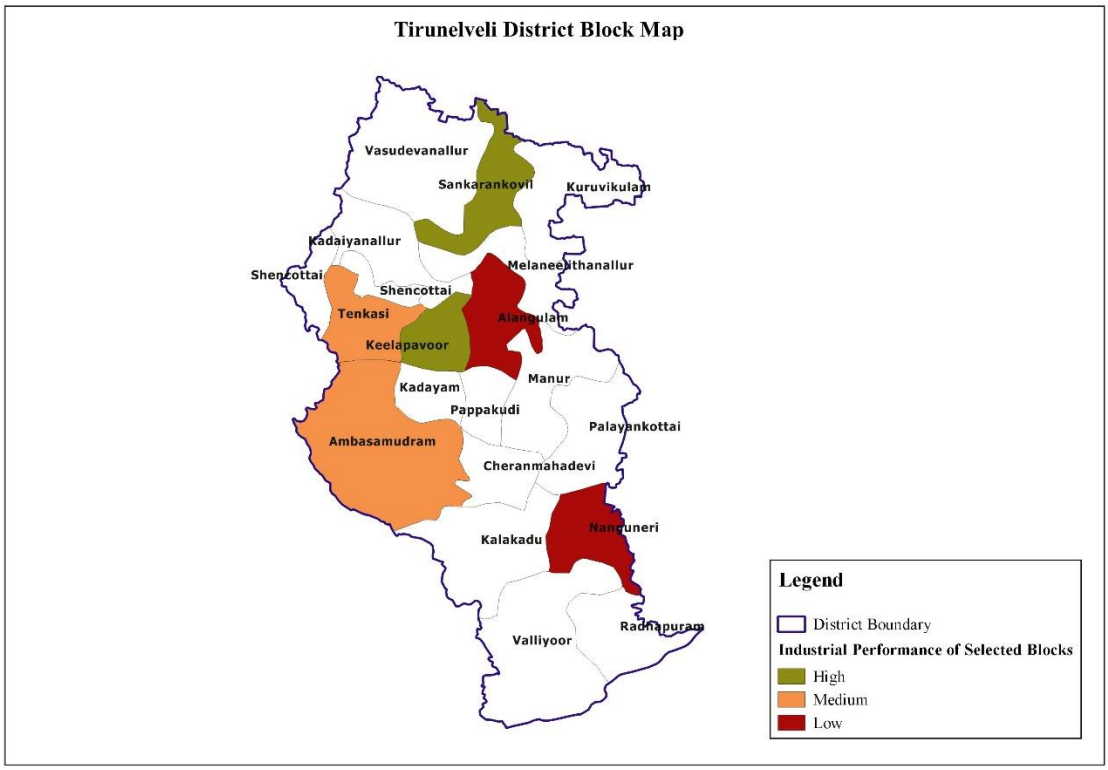
The following weights were assigned post award of marks:
- MSME Cluster – 25%
- SIDCO Cluster – 25%
- SIPCOT Industrial Estate – 5%
- Annual Centre-level Credit Data – 45%

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

After deriving the above values for the blocks, two blocks are randomly selected from each category. Following this, two blocks were randomly selected from each of the category, as per the mentioned classification. Based on this, the following blocks were selected in Tirunelveli.

- Low -Nanguneri, Alangulam
- Medium- Ambasamudram, Tenkasi
- High Keelapavoor Sankarankovil

Figure 31 Map of Selected Blocks

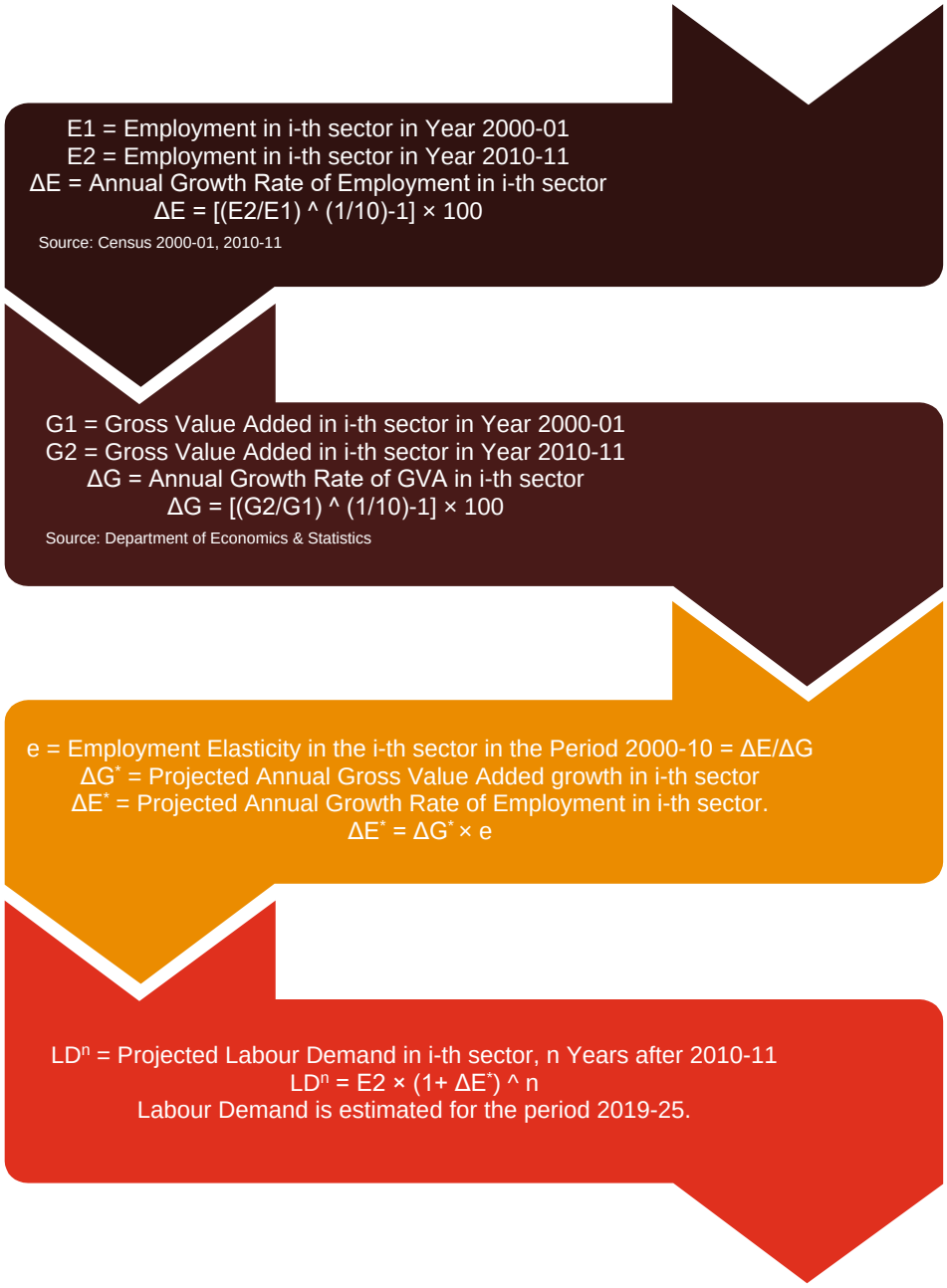


A2. Methodology for Present and Future Labour Demand – Supply and Gap Estimation

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 is another factor that is 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:

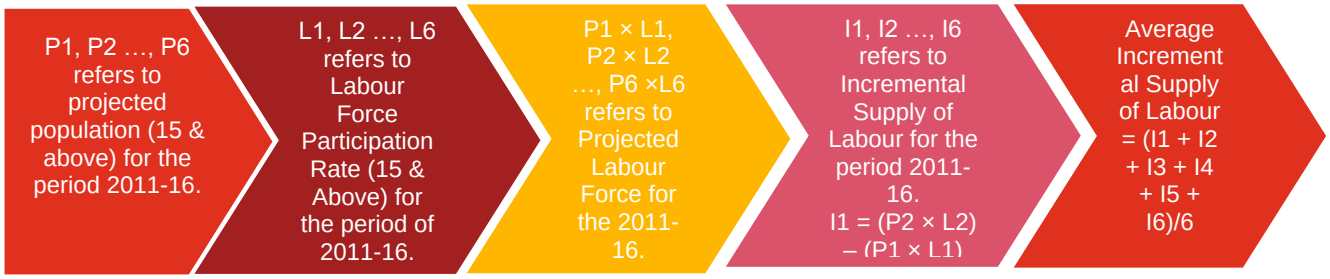
Figure 32 Steps for Demand Estimation



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[40]. 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 for Supply Estimation



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

A3. Credit Outstanding by Occupation - Tirunelveli

The Credit Outstanding in each sector as measured by the Reserve Bank of India[41], indicates the key economic drivers by both size and growth rates. The occupation wise data is presented below:

Sector	Credit Outstanding				CAGR between 2013-14 and 2016-17
	2013-14	2014-15	2015-16	2016-17	
Retail Trade	916	824	1095	1065	5%
Woods and Wood Products	258	228	273	301	5%
Textiles	356	437	282	287	-7%
Wholesale Trade	217	229	221	270	8%
Food Manufacturing & Processing	154	147	170	232	15%
Manufacture of Cement & Cement Products	11	356	353	221	173%
Other Industries	242	215	273	149	-15%
Construction	128	116	127	147	5%
Transport Operators	97	98	121	127	9%
Paper, Paper Products & Printing	111	116	117	110	0%
Beverage & Tobacco	86	79	88	80	-2%
Engineering	47	67	58	62	10%
Chemicals & Chemical Products	29	26	30	51	21%
Electricity, Gas & Water	109	81	64	47	-24%
Tourism, Hotel & Restaurants	16	20	28	33	27%
Rubber & Plastic Products	25	18	28	33	9%
Mining & Quarrying	30	22	23	29	-2%
Basic Metals & Metal Products	43	11	17	19	-24%
Vehicles, Vehicle Parts & Transport Equipment's	7	9	10	15	26%
Gems and Jewellery	6	8	16	8	8%
Recreation services	6	4	6	7	7%
Petroleum, Coal Products & Nuclear Fuels	3	2	1	1	-25%
Leather & Leather Products	1	1	2	1	-1%

[41] Source: Geocrede.com

A4. List of Stakeholders Consulted

S.No	Stakeholder	Category
1.	Joint Director Training	Govt. official
2.	Joint Director Employment	Govt. official
3.	District Skill Development Officer	Govt. official
4.	District Employment Officer	Govt. official
5.	District Industries Center General Manager	Govt. official
6.	DDU-GKY Program Officer	Govt. official
7.	Tamil Nadu State Transport Corporation (TNSTC)	Govt. official
8.	Tamil Nadu Small Industries Development Corporation (TANSIDCO)	Govt. official
9.	Bharat Sanchar Nigam Limited	Govt. official / Training Service Provider
10.	All India Radio	Govt. official / Training Service Provider
11.	Govt. ITI Tirunelveli	Training Service Provider
12.	Tirunelveli Tiny and Small Industries Association (NELTSIA)	Industry Association
13.	Condeferation of Indian Industries	Industry Association
14.	Valliyoor Region Small Industries Association	Industry Association
15.	Aarowin Industries	Industry
16.	Anitha Dress	Industry
17.	Annai Arul Mini Bus	Industry
18.	Annai Candle Industry	Industry
19.	Annai Candles	Industry
20.	Annalakshmi Metal Works	Industry
21.	Annam Industries	Industry
22.	Antony & Co	Industry
23.	Apple Cookware	Industry
24.	Bosch Limited	Industry
25.	Coir Hortitech	Industry
26.	Elkay Engineers	Industry
27.	Essakki Polymers	Industry
28.	Excel Hydro Penumatics	Industry
29.	Fathima Engineering Works	Industry
30.	Fathima Nets	Industry
31.	Friends Backery	Industry
32.	Ganesa Vilas	Industry
33.	Jay Soap Company	Industry
34.	Joseph Plastic	Industry
35.	K.R. Garments	Industry
36.	Kasianantha	Industry
37.	Lakshmi Cookware	Industry
38.	Lakshmi Cookware - 1	Industry
39.	Lakshmi Cookware - 2	Industry
40.	Lakshmi Metal	Industry
41.	Living Water Tank	Industry
42.	Marbin Backery	Industry
43.	Omega Zips	Industry
44.	R J Plastic - PVC Pipe	Industry
45.	Rajkumar Industries	Industry
46.	Shanthi Polymer	Industry
47.	Shanthi Polymers	Industry
48.	Shanthi Polymers - Hose Unit	Industry
49.	Shine Polymers	Industry
50.	Siddhi Vinqyagqr Polymer	Industry
51.	Solo Paints	Industry
52.	Sri Kanna Metals	Industry
53.	Sri M S A K Ganapathy Das	Industry

S.No	Stakeholder	Category
54.	Sri Rajan Industries	Industry
55.	Suresh Bricks	Industry
56.	Suresh Hardwares	Industry
57.	Suresh Wire Product	Industry
58.	T V S Tirunelveli	Industry
59.	V.R. Tyres	Industry
60.	Vimal Industries	Industry