Skilling for the Future

Skill Gap Assessment & Action Plan for Tamil Nadu

District Skill Development Plan for Ramanathapuram

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 Industries
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 Dayal Upadhyaya Grameen Kaushalya Yojana
7.	DES	Directorate of Economics and Statistics
8.	DIC	District Industries Centre
9.	DISE	District Information System for Education
10.	GCC	Gulf Cooperation Council
11.	GDDP	Gross District Domestic Product
12.	GoTN	Govt. of Tamil Nadu
13.	GSDP	Gross State Domestic Product
14.	GSVA / GVA	Gross State Value Added / Gross Value Added
15.	ITI	Industrial Training Institute
16.	IT-ITES	Information Technology and Information Technology Enabled Services
17.	LFPR	Labour Force Participation Rate
18.	Manuf.	Manufacturing
19.	NEET	Not in Education, Employment or Training
20.	NIC	National Industrial Classification, 2008
21.	NSDA	National Skill Development Agency
22.	NSDC	National Skill Development Corporation
23.	NSQF	National Skills Qualification Framework
24.	NULM	National Urban Livelihood Mission
25.	PMKVY	Pradhan Mantri Kaushal Vikas Yojana
26.	PSU	Public Sector Undertaking
27.	Pub. Admin.	Public Administration (GDP Sector)
28.	QP-NOS	Qualification Pack – National Occupational Standards
29.	SIPCOT	State Industries Promotion Corporation of Tamil Nadu
30.	SPIC	Southern Petrochemical Industries Corporation
31.	SSC	Sector Skill Council
32.	TANSIDCO	Tamil Nadu Small Industries Development Corporation
33.	TIDCO	Tamil Nadu Industrial Development Corporation
34.	TN	Tamil Nadu
35.	TN-GIM	Tamil Nadu Global Investors Meet
36.	TNSDC	Tamil Nadu Skill Development Corporation
37.	TNWDC	Tamil Nadu Women Development Corporation, the implementing agency of the Tamil Nadu State Rural Livelihood Mission
38.	Tr. & Tou.	Trade and Tourism Sectors (GDP Sector)
39.	W / S Emp.	Wage or Salary Employment
40.	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 and the State as a whole. 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. The study estimated Skill gap for a period of 10 years, up to FY 2022. Given the rapid change in the State's social and economic context, there is a need for a fresh assessment of the State's skill ecosystem. In addition, there is also a felt need to understand the aspirations of the youth from diverse socio-economic and demographic backgrounds across the State, with special emphasis on economically backward communities. A contemporary estimation, using both quantitative and qualitative analysis would reveal 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 engaged PricewaterhouseCoopers Private Limited (PwC) to carry out "Skill Gap Assessment and Action Plan" for the state. This is the first time such a comprehensive State-wide skill gap assessment study has been commissioned in Tamil Nadu, which duly considers block-level information across each of the District. The study aims at identifying sources wage employment and self-employment (including entrepreneurship) in all 32 Districts, estimating the sector-wise current and future workforce demand (over the next six years i.e. upto 2025) by industry, and assessing the overall the labour supply and estimating the existing and emerging skill gaps.

The study was designed in a manner to offer insights into: (i) which skills are required to support the State's economic growth, while also responding 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.

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

1. **Youth aspiration survey:** a quantitative survey covering 360 youth 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 Ramanathapuram were covered: Kadaladi, Nainarkoil, Kamudi, Tiruppullani. Paramakkudi, Ramanathapuram.
2. **Employer survey**: covering 45 industries 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 including focus group discussions and individual consultations have been conducted across the State.

Estimation of labour demand and supply were undertaken based on the analysis of data sourced from the Census of India, the Department of Economics and Statistics of Government of Tamil Nadu, the Reserve Bank of India, the National Sample Survey Organisation and the Bureau of Labour and Employment under the Ministry of Labour and Employment, Government of India. Estimates were further refined based on the data pertaining to the proposed investments (pragmatically rationalised and considered), and the anticipated developments within key sectors; in addition, due consideration is given to the emerging sectors and job roles. This study involved estimating the District-level workforce demand for the upcoming years (upto 2025) categorised as skilled and semi-skilled workforce requirement. In addition, an estimate of skill gaps over the following four years (upto 2029) was also required; however, given the rapid changes in the socio-economic context, re-validation of the estimates is required after five-years (i.e. by 2023). The sectors and job roles in demand during the immediate years is structured into training projects, which are informed by the demand estimations, and validated through quantitative survey findings and qualitative consultations. Budgetary requirements for the training projects is estimated based on the cost categories as defined within the recent Common Cost Norms published by the Ministry of Skill Development and Entrepreneurship, Government of India.

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

Demographic Analysis	• The District's median age was 28 years in 2011 and is expected to increase to 36.2 years in 2026. • Around 30% of the District's population is urban.
Economic Analysis	• Ramanathapuram is one of the less industrialized Districts of the State and contributes to 1.06% of the State's GDP. • It ranks 27th in terms of GDDP per Capita ₹0.77 Lakh (2017-18). • The Household Purchasing Power in the District is estimated to be ₹3.44 Lakhs per annum, which is 18% lesser than State average of ₹4.18 Lakhs per annum. • Ramanathapuram is the home to 1/5ths of both the State's fisher folk population and the marine fisheries output. • Industrial sector grew at 4% CAGR between 2011-12 and 2016-17. The sector is dominated by the Manufacturing and Construction sub-sectors • Textiles, food processing, and chemicals are some of the key industries in the district • Services sector contributes to 54% of the GSDP. The sector grew at a CAGR of 3% between 2011-12 and 2016-17. • Rameswaram Town is the second most popular tourist destination in the state. Annually, it attracts an estimated of over 2 crore visitors a year. • Important sites and monuments attracting tourist towards the districts are the Pilgrimage sites around Rameswaram, Dhanushkodi, Kurusadai Island, Ramanathapuram palace, Sea Water Aquarium, Mandapam and, Pamban, Annai Indira Gandhi Bridge.
Labour Market Analysis	• The District's overall labour force participation (55%) and worker population ratio (54%) are lower than the State figures (59% and 57% respectively) • Around 44.7% of the labour in the District is in casual labour, which is slightly higher than the State level figure (44%).
Education & Skill Development	• There are around 59 institutes of higher education in the district with seating capacity of around 26,000. Arts and Sciences colleges account for most of the capacity. • Healthcare (30%) had the largest coverage followed by Electronics and IT/ ITES (both 16%), and Electrical (14%) were the major sectors covered under TNSDC run Skill development programs. • Under the ITI's the major job roles are Fitter (15%), Wireman (12%), Mechanic Motor Vehicle and Mechanic Diesel (both 11%). The ITIs in the District saw a utilisation of 82.3% and a pass percentage of 75%, both higher than the State average.
Findings from Primary Survey	

Youth Profile and Aspirations	• 85% of the youth respondents engaged in economic activity were working in a field related to their education / training. • More than 60% college-educated respondents were engaged in salaried employment, or skilled work. • Almost 40% of the Not in Education, Employment or Training (NEET) category respondents stated that they wished to work. Out of these, 80% stated that they had been searching for a job. • Salary (wages)/ Income (76%), job security (49%) and social status (37%) are key factors determining aspirations. • 'Lack of jobs locally' figures as the most cited challenge for youth to pursue their careers. This is followed by 'lack of guidance / information', 'low financial strength', and 'lack of sufficient education qualification'. • Female respondents aspired for careers in Food Processing, Iron & Steel, Sports, and BFSI sectors. Male respondents aspired for Handloom & Handicrafts, BFSI, Security and Iron & Steel sectors. • Around 32% of the respondents have expectations of monthly income more than ₹ 15,000. • With respect to components in counselling programs, respondents stated preferences for placement services (47%) and relevant vacancies (45%).
Employer & Other Key Stakeholder Perspectives	**Quantitative Survey** • The most Common methods of recruitment were found to be employee referrals. • Candidates' disinterest and attitude and high local wages were challenges faced by employers while recruiting workers. • 47% of workers on average in the units were unskilled, 31% were skilled. • Causes of attrition include: better job opportunities, low local wages and candidate disinterest. • 90% respondents felt that growth prospects for their industry were medium to high, and 68% indicated interest in medium-level technology adoption **Qualitative Inputs** • Youth in general aspire to join white-collar jobs, and graduates from ITI tend to migrate to Chennai, Madurai and Coimbatore to work in large industries • Migrant workers mostly work in unskilled job roles, especially from eastern India, in Tourism & Hospitality sectors • Though industries are willing to partner with the Govt. in Skill Development and vocational initiatives, MSMEs felt that such programs should accommodate the needs of smaller units, given their predominance in the district. They are willing to offer training which is immediately relevant to their needs.
Incremental Demand	• An incremental demand of nearly 30,785 skilled and semi-skilled workers are estimated over the next 6 years. • Key sub-sectors driving the demand are manufacturing, construction, education, human health and social work, and repair of household goods, and construction.

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

- **Promotion of Large Industries and Investments in the District:** The local industries expressed desire for greater investments from both public and private sector, encouraged through special initiatives like development of Special Economic Zones.
- **Convergence:** There is an urgent need for several departments in the state engaged in Education, Vocational Education, Industrial Development, Fisheries, Agriculture and Allied activities, among others to converge their efforts. Quality assurance, de-duplication of efforts, and better allocation of training capacity. 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.
- **Promotion of traditional industries**: Seafood processing, handicrafts from seashells, sea weed cultivation are prominent traditional sectors in the district can be supported to ensure their sustainability. This will encourage entrepreneurship as well. Youth also show a preference for these sectors.
- **Project-oriented apprenticeship/ internship programs** – Qualitative consultations revealed that employers prefer that students are exposed to problems/ challenges in the industry. An internship program which focuses on problem-solving to address challenges would allow students to gain practical exposure and employers to successfully harness the abilities of students.

- **Market linked Trainings: Th**e district's population has among the highest share of emigrations in the state, especially to the GCC countries, Singapore and Malaysia. There is an opportunity to train youth in courses which are at a higher level of the NSQF, especially at supervisory roles and those with higher technological requirements. ITIs and polytechnics should increase the exposure to advanced machinery or content (like safety) to make the candidates job ready. Tourism & Hospitality, Construction, Healthcare, Food Processing, Agro-business and Trade are key areas of employment potential require augmentation of training capacity

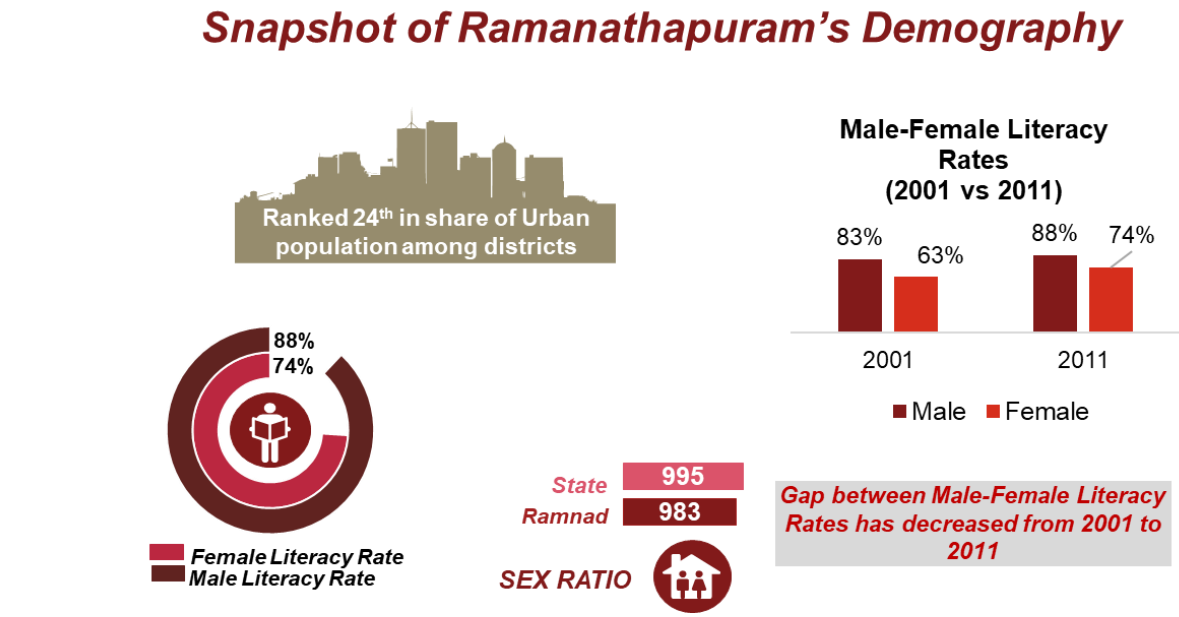
1. District Profile

The unified Ramanathapuram District (or Ramnad) was formed in 1910 combining portions of the then Madurai and Tirunelveli districts. The District was bifurcated in 1984 to form the Sivaganga district and the residual District today. The District is bound by the Palk Straight (East), Gulf of Mannar (South), Thoothukudi (South-west), Virudhunagar (West), Sivaganga and Pudukkottai (North East). The coral rich Gulf of Mannar, home to the country's only marine biosphere reserve and is a rich source for fishing. The District is ranked among the least developed in the State[3] and has been included as part of the Aspirational Districts program of the NITI Aayog.

1.1. Demographic Profile

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

SN	Indicator	Ramanathapuram	Tamil Nadu
1	Total population	13,53,445	7,21,47,030
2	Female Population	6,70,787	36,009,055
3	Population Density per sq.km (2011)	330	555
4	Urbanization	30.3%	48.4%
5	SC population (as % of total population)	18.4%	20.0%
6	ST population (as % of total population)	0.1%	1.1%
7	Differently abled population (as % of total population)	1.7%	1.6%
8	Population in age group 15-34 years (as % of total population)	34.5%	34.8%
9	SC population aged 15-34 years (as % of SC population)	36.5%	36.6%
10	ST population aged 15-34 years (as % of ST population)	38.4%	35.0%
11	Literacy rate	80.7%	80.3%



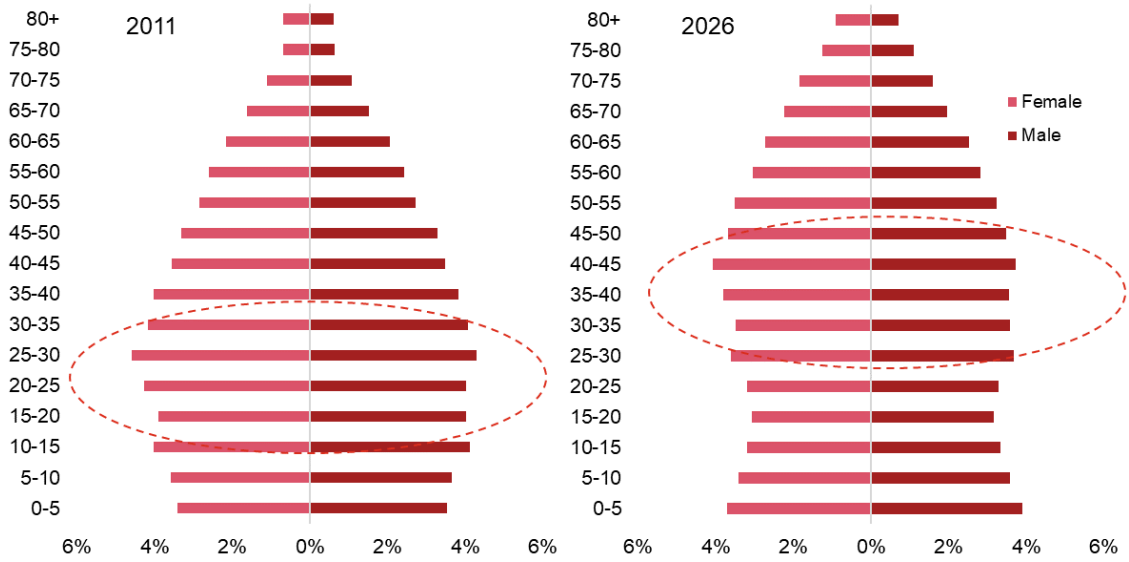
Key Highlights from the analysis of Census Data:

- **Population Growth:** The decadal growth rate **of the population in the District** was **13.9%** between 2001 and 2011, compared to **15.6%** at State level. The urban population grew by 35.8% and the rural population by, 6.5%.

[3] State Planning Commission, Govt. of Tamil Nadu
[4] Census 2001 & 2011

- **Literacy:** The District had a female literacy rate of 74% while the male literacy rate stood at 88%. The literacy rates at the District level are higher than that of the State. The reducing gap between the male and female literacy rates indicates a higher level of participation of females in Education and improved educational attainment among females in the District.
- **Youth Demography:** 34.5% of the population was between 15-34 years, in 2011, and the median age stood at 28 years. This is marginally lower than the median age of the state, which was 29 years in 2011. The population is set to get much older with median age in 2026[5] expected to be around 36.2.

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

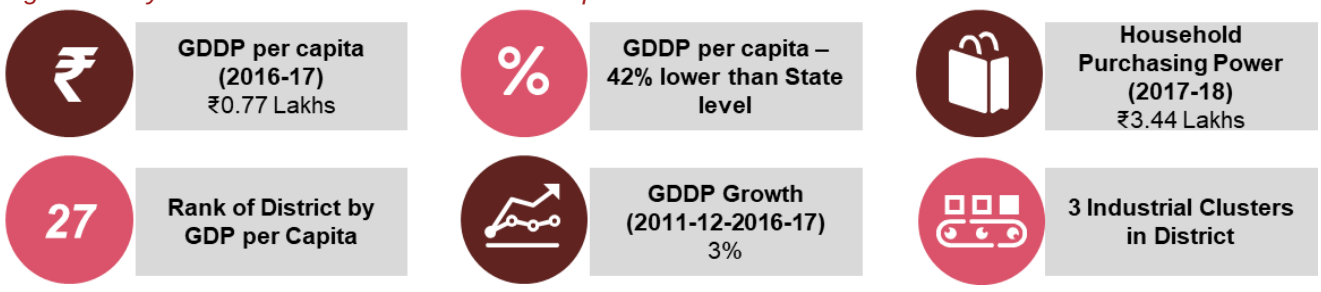


Ramanathapuram's population has a similar median age as the State. Less than one-third of the District is urban. It is a hub for religious and heritage tourism. Ramanathapuram enjoys proximity to Madurai and Thoothukudi, which are industrial, trade and tourist hubs.

1.2. Economic Profile

Ramanathapuram is one of the less industrialized Districts in the State and contributes to 1.1% of the State's GDP[6]. The District is widely known for its Fisheries and Tourism. The District has a per-capita GDP (₹77,323 per annum) which is nearly half of the State level.[7].The Household Purchasing Power in the District is estimated to be ₹3.44 Lakhs per annum according which is 18% lesser than State average of ₹4.18 Lakhs per annum.

Figure 2: Key Economic Indicators of Ramanathapuram District

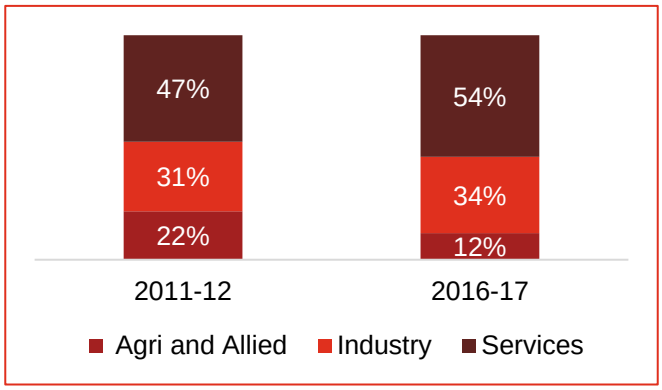


Source: Directorate of Economics and Statistics, TN, PwC analysis

[5] Age wise Population projected for 2026 based on age group wise life expectancy, birth and death rates
[6] Analysis in this section is derived from data shared by Directorate of Statistics and Economics, Government of Tamil Nadu
[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). Data downloaded from districtmetrics.in, and calculated based on data from Reserve Bank of India, NSSO and Census of India, 2011. A strong correlation exists between the Per Capita GDP, the Banking Sector indicators (adjusted to population) and the consumption expenditure (disposable income) reported under NSSO at the national and state level. This relationship was further verified with data over several years. The state level purchasing power is then further broken down to the district level based on the district level banking data (savings and deposits) and the district level consumption estimates of the NSSO. (Source: districtmetrics.com)

1.2.1. Sector wise Analysis

Figure 3: Sectoral Share of GVA (2011-12 & 2016-17)



Ramanathapuram's GVA in the year 2016-17 shows that the service sector contributes a majority to the District's economy, followed by the industrial sector (which contributes one-third). The agriculture sector only contributes around one-eighth of the total output. In 2016-17, the District's share in the State GSDP was around 1.06%. The economy has grown at a Compounded Annual Growth Rate (CAGR) of 3% between 2012-13 and 2016-17. The table below presents the annual growth rates and CAGR for each sector.

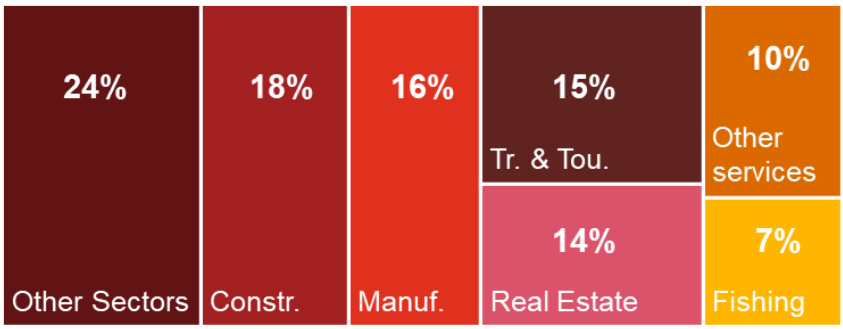
Table 2: Sector wise- Annual Growth Rate in Ramanathapuram

Sector	2012-13	2013-14	2014-15	2015-16	2016-17	CAGR between 2011-12 and 2016-17
Agri & Allied	-29%	1%	47%	-18%	-29%	-9%
Industry	20%	-7%	-2%	11%	2%	4%
Services	7%	7%	6%	1%	5%	5%

Source: Directorate of Economics and Statistics, TN

Construction, Manufacturing, Trade & Tourism, Real Estate and Fishing were the major sub-sectors in the district, which accounted for 3/4th of the District economy.

Figure 4: Share of GVA by Industry of Origin (2016-2017)

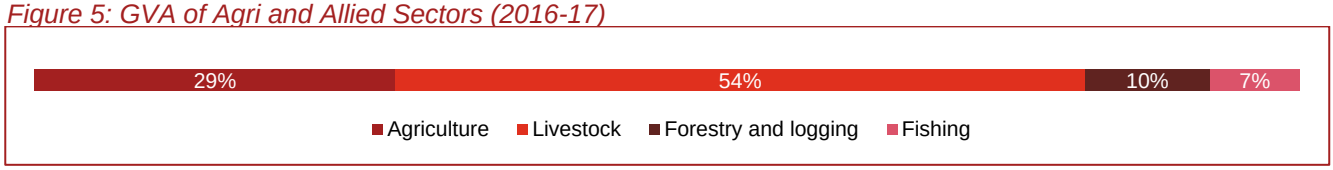


Construction is the largest sub sector in the District. Other key sectors are Manufacturing, Trade & Tourism, Real Estate and Fishing

Agriculture and Allied Sector

Agriculture and allied sectors contribute around 12% to the District's GVA. Agriculture in the District is dominated by fishing, which contributes to more than 50% of the agricultural output, and livestock. Cultivation has seen major decline owing to droughts in the recent years[89]. The major crops cultivated in the district are paddy, millets, groundnut, sesame, among others.

Figure 5: GVA of Agri and Allied Sectors (2016-17)



Source: Directorate of Economics and Statistics, TN

[8] https://www.thehindubusinessline.com/news/national/Declare-Madurai-Ramanathapuram-drought-hit-urge-farmers/article20566762.ece
[9] http://www.newindianexpress.com/states/tamil-nadu/2017/apr/26/never-been-as-bad-as-this-lament-people-on-drought-in-tamil-nadu-1597784.html

Industrial Sector

Recent growth in the manufacturing sector (8% CAGR between 2011-12 and 2016-17) has enabled a growth of the Industrial sector 4% per annum over the last 5 years. The sector is dominated by the Manufacturing and Construction sub-sectors - they account for around 98% of the output. Textiles, food processing, other chemicals and non-metallic products are some of the key industries in the District.

Figure 6: Industrial Sector GVA (2016-17)

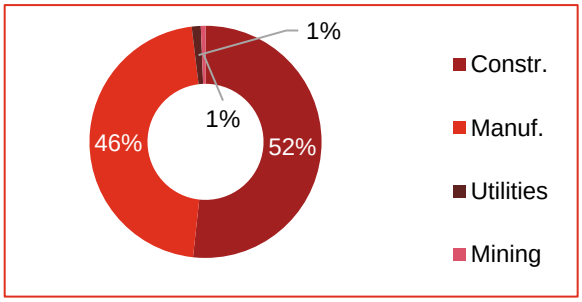


Table 3: Key Clusters and Traditional Industries

Sea Shells, Ramanathapuram	Jewellery, Paramakudi	Engineering, Paramakudi – (L-Clamp, U-Clamp)

Source: DC-MSME District Profile

Table 4: Profile of Manufacturing Sector from ASI (2014-15)

	No. of Units	No. of Employee	Gross Value Added (share in total GVA)	Share of Employment	Average workers per unit
Spinning, weaving and finishing of textiles	104	31,847	49%	47%	306
Other chemical products	150	22,929	12%	34%	153
Non-metallic mineral products n.e.c.	56	2,758	8%	4%	49
Printing and service activities related to printing	27	2,392	3%	4%	89
Paper and paper products	19	2,244	3%	3%	118
Plastics products	5	1,927	2%	3%	385
Others	66	2,733	19%	4%	392
Total (all sectors)	442	68,178	100%	100%	154

Source: Annual Survey of Industries 2014-15

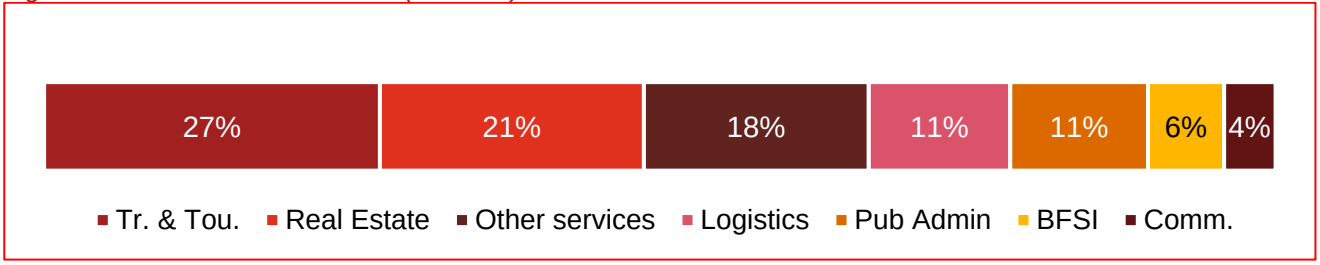
Existing Industrial Estates

- SIDCO Estate, Thellichathanallur, Paramakudi
- SIDCO Estate, Nenmeni, Paramakudi
- SIDCO Estate, Keela Nagachi

Services Sector

Trade and Tourism contributes around 27% of the Service sector GVA, followed by Real Estate and Business services. Other sectors of note include logistics, and Public Administration. Important sites and monuments attracting tourist towards the districts are the Pilgrimage sites around Rameswaram, Dhanushkodi, Kurusadai Island, Ramanathapuram palace cum museum, Rameswaram, Sea Water Aquarium, Mandapam and Pamban, Annai Indira Gandhi Bridge, Mela-Keela Selvanoor Bird Sanctuary and Chitrangudi Bird Sanctuary, among others.

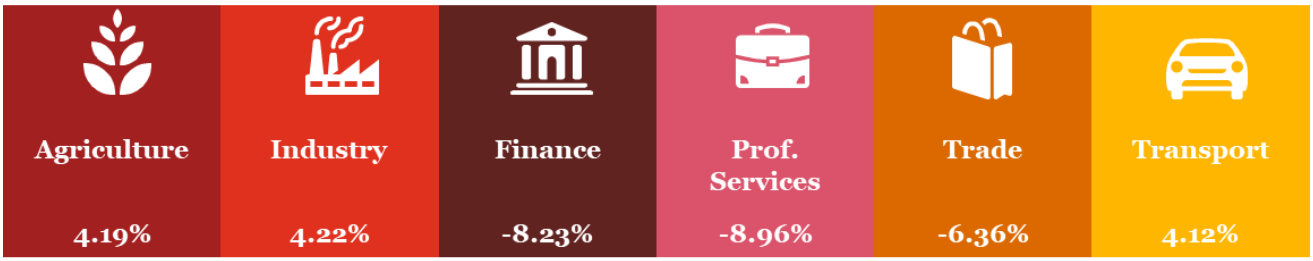
Figure 7: GVA of Services Sector (2016-17)



Source: Directorate of Economics and Statistics, TN

1.2.2. Investments and key economic drivers

Figure 8: Sector-wise growth of Credit off Take (2013-2016) - RBI



According to the data collected from the RBI, the District has seen recent growth of credit in Agriculture, Industry and Transport. Trade has seen a recent decline in the offtake indicating a slowdown[10].

Other investments include[11]

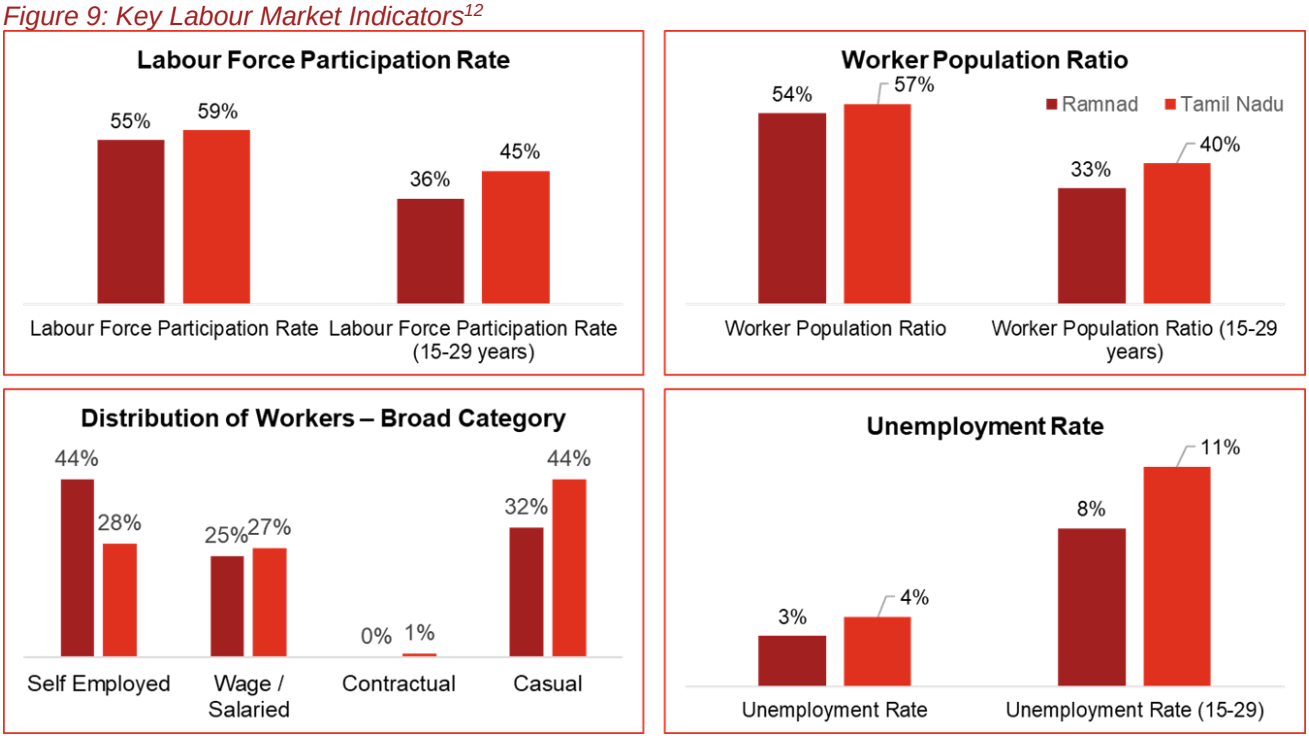
- The National Highways Authority of India has announced the upgradation of the Madurai-Ramanathapuram.
- The Govt. of Tamil Nadu has announced a plan for setting up an IT park in the District.
- ₹270 Crores of Investments are expected in the Oil and Gas Sector according to the Tamil Nadu Global Investors Meet data.

[10] Credit offtake is defined as an increase in credit growth, which happens when lenders mobilize funds to commercial sector in order to earn better returns compared to government bonds and securities. Data collected from districtmetrics.in
[11] CMIE-Capex database and Guidance Bureau, Govt. of TN

1.3. Labour Market Profile

The District's overall labour force participation (55%) and worker population ratio (54%) are lower than the State figures (59% and 57% respectively). Self-employment is the dominant form of employment in the District. Youth unemployment is lower than State level, at 8%.

Figure 9: Key Labour Market Indicators[12]



Source: Employment and Unemployment Survey District Estimates, 2013-14

The education-level classification of labour market indicators suggests that there is low unemployment across education categories. At 10%, Ramanathapuram has one of the lowest population with working age population with at least a diploma level education.[13]

Figure 10: Distribution of working status by Educational Qualification

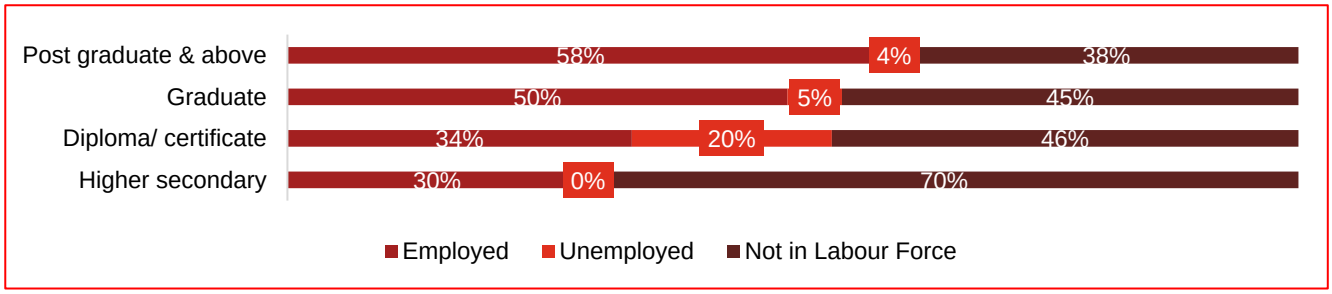


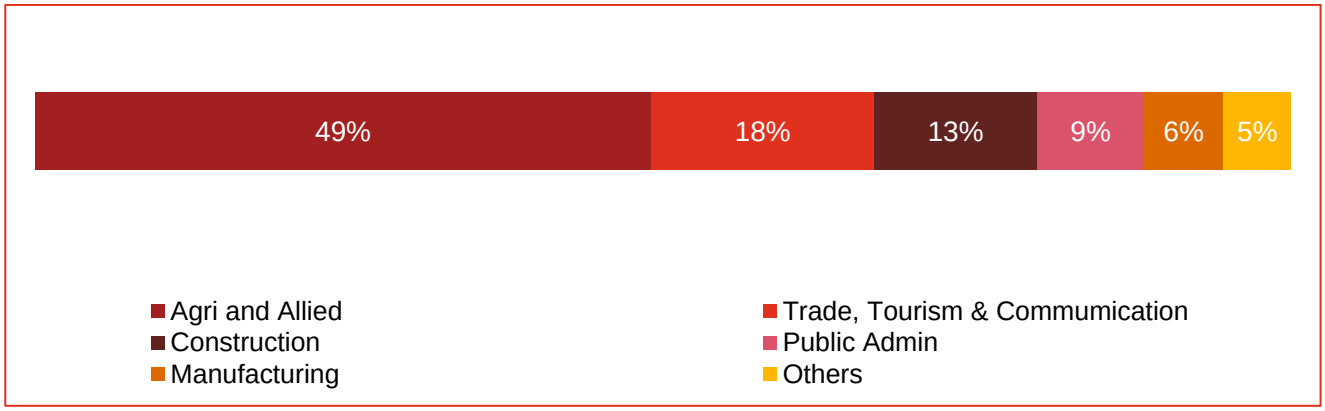
Table 5: LFPR and Unemployment Rate by Sex & Location

	LFPR		Unemployment Rate	
Sex	Rural	Urban	Rural	Urban
Male	75.6%	75.7%	2.9%	2.9%
Female	39.3%	23.0%	0.9%	5.3%

Disaggregation by area and sex, it is found that labour force participation rate of rural females is 16 percentage points higher than the urban counterparts. The urban unemployment rate for females is more than 5%.

[12] District Level Estimates, EUS, 2013-14, Labour Bureau
13 Census,2011

Figure 11: Sector-wise share of Employment



Nearly half of the labour force is employed in the agriculture and allied sector, followed by 18% in trade and tourism. Around 13% are engaged in construction, and 9% in public administration.

1.4. Education and Skill Development Profile

1.4.1. Higher Education Profile

In Ramanathapuram district, four Engineering colleges, fourteen arts and science colleges, four polytechnics, seven Diploma in Teachers Education (DTE), and eight Teachers Training Education Centre (B.Ed colleges), and five ITIs offer higher education to the students numbering 25,573[14].

Table 6: Institutions of Higher Education in Ramanathapuram District

Type of Institution	No. of Institutions	No: of Students
Arts & Science colleges	14	13,520
Engineering	4	5,124
Polytechnic	4	3,721
Industrial Training Institutes	5	890
B. Ed.	8	800
DTE	7	322
Total	59	25,573

Source: District Statistical Profile (2016-17), NCVT - MIS

1.4.2. Vocational Education and Skill Development Profile

The skill training infrastructure of the District includes skill training centers implementing schemes like TNSDC, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and Deen Dayal Upadhyay Grameen Kaushal Yojana (DDU-GKY). The below table presents an overview of the short-term skill development centres in the District. 1,260 youth had been trained under TNSDC program. Healthcare (30%) had the largest coverage followed by Electronics and IT/ ITES (both 16%), and Electrical (14%).

Table 7: Vocational Training under Short Term Skill Development Programs

Scheme	Sector	Job Role	No. of Training Centres	Capacity/ Trained
Pradhan Mantri Kaushal Vikas Yojana	Agriculture	Gardener	1	60
		Organic grower	1	60
Deen Dayal Upadhyay Grameen Kaushal Yojana (DDU-GKY)	Apparel & Textile	Sewing Machine Operator	1	100
Tamil Nadu Skill Development Corporation	Apparel & Textile	Tailor (Basic Sewing Operator)	1	80
	Automotive	Driver cum Mechanic	1	60
		Wheel Tractor Backhoe Loader Machine Operator	1	60
	Beauty and wellness	Assistant Beauty Therapist	1	20
	Construction	Assistant Electrician	1	20
	Electrical	Electrician Domestic	3	180
	Electronics	Field Technician AC	1	20
		Field Technician Refrigerator	1	20
		Repair and Maintenance of Refrigerator	2	100
		Repair and maintenance of Window and Split A.C	2	60
	Fabrication	Arc and Gas Welder	1	60
	Healthcare	Cook (General)	3	170
		Hospitality Assistant	1	60
		Basic of Anatomy & Physiology	2	65
		Dietician Assistant	2	65
		General Duty Attendant (GDA)	1	20
	IT /ITES	Accounts Assistant using Tally	2	40
		DTP and Print Publishing Assistant	3	160

Source: Data collected from Tamil Nadu Skill Development Corporation, TNSRLM

The long-term skill development programs are predominantly offered through Industrial Training Institutes, which offer one- and two-year programs in various sectors and trades. The table below presents the courses offered

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

through ITI, and the number of such institutes offering each trade/ training for job role. The major job roles were Fitter (15%), Wireman (12%), Mechanic Motor Vehicle and Mechanic Diesel (both 11%). The District saw a utilisation of 82.3% and a pass percentage of 75%, both higher than the State average.

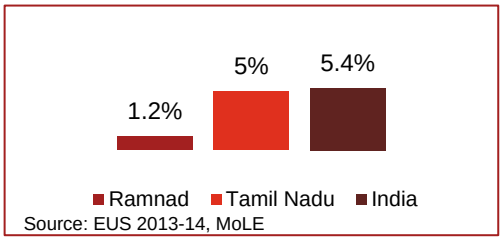
Table 8: Vocational Training under Long Term Skill Development Programs (ITI)

Sector	Trade	Number of institutions	Intake
Automobiles and Auto Components	Draughtsman (Mechanical)	1	18
	Mechanic (Motor Vehicle)	5	95
	Mechanic Diesel	4	98
Capital Goods	Fitter	6	130
	Turner	1	31
	Welder	2	80
	Wireman	5	104
Construction	Electrician	6	80
Electronics and Hardware	Electronics Mechanic	1	21
	Mechanic (Refrigeration and Air-Conditioning)	2	49
Furniture & Furnishing	Carpenter	1	47
IT-ITES	Computer Operator and Programming Assistant	1	46
	Desk Top Publishing Operator	1	23
Textile & Apparel	Spinning Technician	2	53
	Spinning Technician	2	15

Source: National Council for Vocational Training – MIS

With respect to population aged 15 and above who have undergone vocational training, around 1.2% in Ramanathapuram had undergone the same, while around 5% had undergone vocational training in the State. The All-India level is higher than both district and state level figures[15].

Figure 12: Population Undergone Vocational Training



Source: EUS 2013-14, MoLE

[15] Employment and Unemployment Survey, 2013-14, Ministry of Labour and Employment

2. Youth Perspective

2.1. Profile of Respondent Youth

The structured household survey tool was administered with the 360 youth (young men and women in the age group of 15-34 years) from across six blocks. The figure below presents the respondent profile.

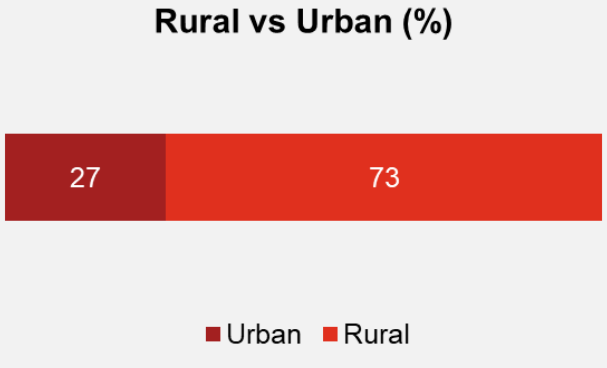
Figure 13: Respondent Profile of Youth Aspiration Survey

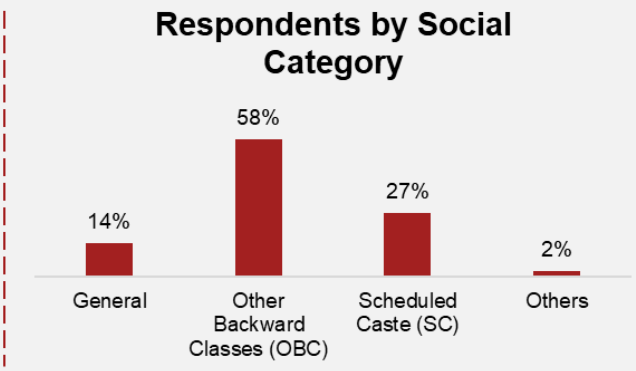
Respondent Profile

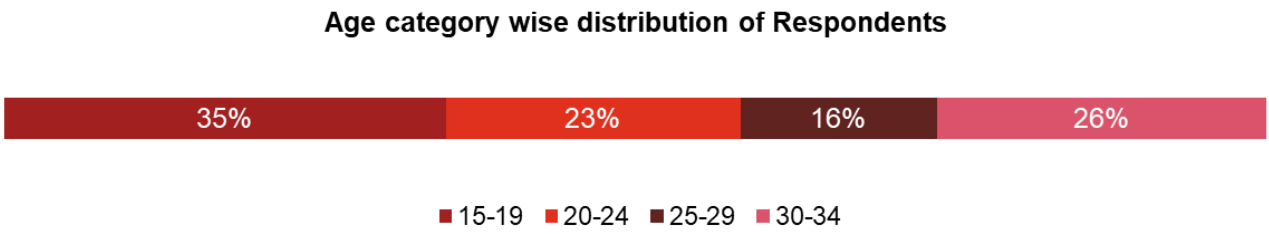
Blocks Covered	
Kadaladi	Tiruppullani
Nainarkoil	Paramakkudi
Kamudi	Ramanathapuram

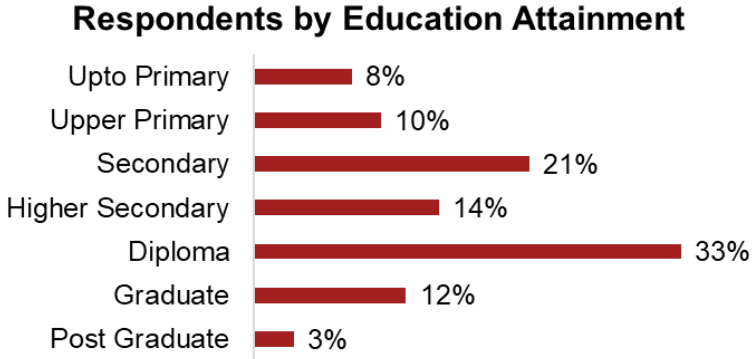
360 Respondents

31% Female Respondents







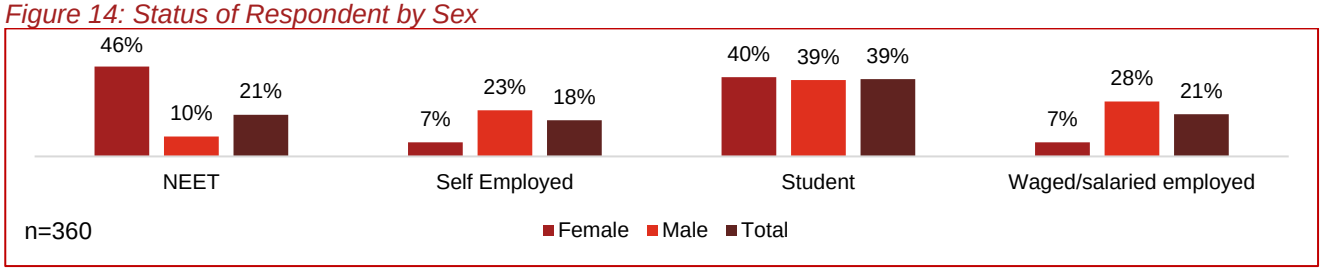


- *71% respondents were from the BPL (below poverty line category*

2.2. Youths' Educational and Economic Engagement Status

The figure below illustrates the gender wise classification (current status) of the respondents interveiwed during the household survey. Nearly half of the female respondents were falling in the NEET (46%) category, and the rest predominantly in education. Around 39% of male respondents were students. Overall, 14% of female respondents and 51% of male respondents were engaged in economic activity.

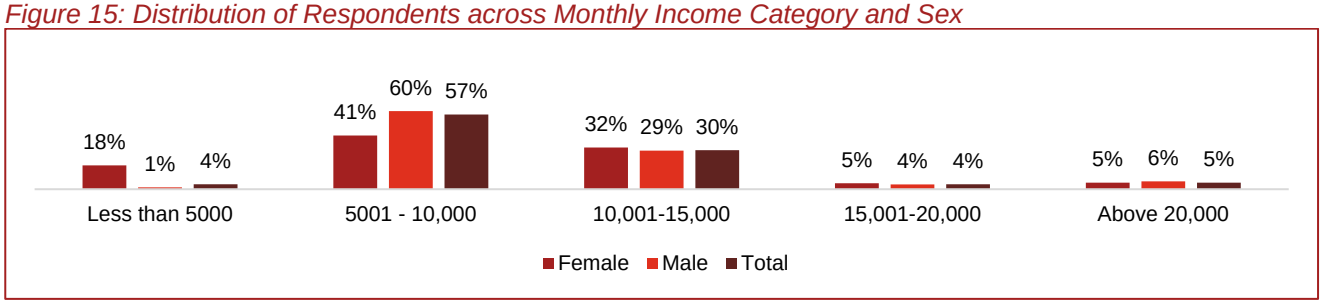
Figure 14: Status of Respondent by Sex



2.3. Economic Engagement of Youth

Around 40% of respondents were currently engaged in work, and 3% had previously worked and were currently not working. Around 85% of the respondents who had ever worked stated that their work was related to their training. The median income was ₹9,035 per month. The income distribution among males and females was similar (Females - ₹8,902 and Males – ₹9,083). 91% of all respondents earned a monthly income of ₹15,000 or lesser. The Figure 15 presents the distribution of respondents by monthly income category:

Figure 15: Distribution of Respondents across Monthly Income Category and Sex



N=154

Table 9: Education Qualification of Respondents and Employment Type

Economic Activity	Upto Upper Primary	Secondary	Higher Secondary	Diploma and Above
Farm Activities	8%	2%	7%	2%
Unskilled worker (Construction Work, Casual Labour, MGNERGA etc.)	46%	27%	44%	18%
Salaried Employment	0%	0%	0%	16%
Skilled worker (tailor, mason, electrician, plumber etc.)	8%	47%	19%	48%
Business / Trade	38%	25%	26%	14%
Respondents	26	55	27	50

Multiple Response, Percentage totals may exceed 100%

Skilled self-employment[16] and unskilled work were the dominant form of employment. Nearly one-fifths of the respondents were in the Graduate and above category were unskilled.

[16] Traditionally self-employment includes both enterprises and engaging in a profession/ trade on own account (as defined in the National Sample Surveys on Employment and Unemployment [http://mospi.nic.in/sites/default/files/publication_reports/nss_report_554_31jan14.pdf]). However, in this study, it has emerged that youth prefer to be engaged independently in a trade/ profession on their own account more than setting up an enterprise.

2.4. Youth under NEET Category

Around 21% of the respondents were in NEET category. Within this category, 57% were in 25-34 years age group and 67% were female. Around 40% had finished school education. Around 51% of the respondents had been in the NEET category for more than three years, and 16% for 2-4 years. Almost 40% the respondents stated that they wished to work, and out of these, 80% stated that they had been searching for a job.

Table 10: NEET Category Respondents

Duration in NEET Category			
	Female	Male	Total
Less than 6 months	2%	28%	11%
6 months- 1 year	10%	16%	12%
1- 2 years	4%	24%	11%
2- 3 years	14%	20%	16%
More than 3 Years	71%	12%	51%
Total	51	25	76

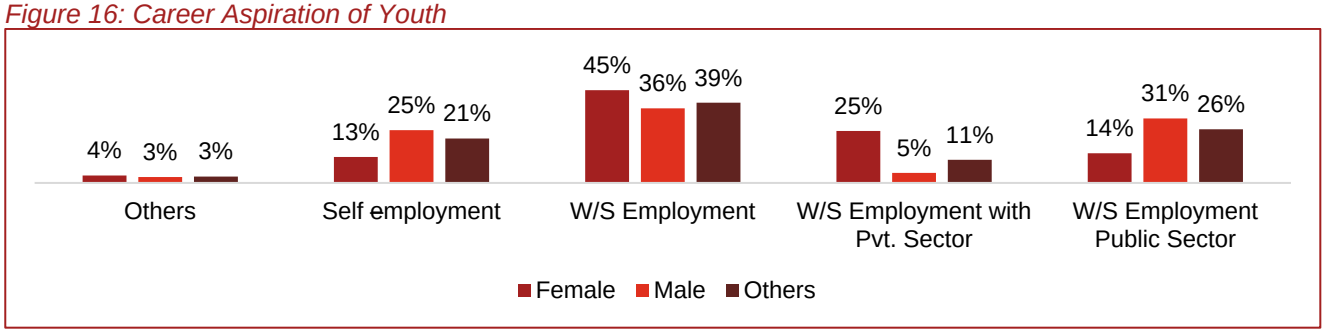
Wish to Work			
	Female	Male	Total
Yes	22%	76%	40%
Total	51	25	76

Actively Seeking Work			
	Female	Male	Total
Yes	63%	90%	80%
Total	11	19	30

2.5. Youth Career Aspirations

Youth aspirations for type of employment seems to be skewed towards waged/ salaried employment, with both male and female respondents showing this pattern. There is greater preference for public sector employment among males.

Figure 16: Career Aspiration of Youth



(W/S Employment – Wage / Salaried Employment)

The main factors determining the aspiration of the youth are salary (wages)/ income (76%), job security (49%) and social status (37%). About 50% of the youth (those not in NEET or student category) feel they are completely prepared for requirements for a job, 31% feel they were somewhat prepared and only 4% of the respondents felt they are unprepared for jobs. The reason commonly cited for feeling prepared is “adequate work experience in area of job” (55%). Around 27% felt that they were “Adequately skilled in area of job”. With respect to the perception of the actual availability of jobs, around 56% of respondents stated that they perceived jobs to be **somewhat adequate.** However, 24% of the respondents felt it was very inadequate**.** Findings related to factors determining aspirations, preparedness for ideal job and perception of availability of jobs are presented below.

Table 11: Career Aspiration - Factors, Preparedness and Availability of Jobs

Factor Determining Aspiration (n=360)*	Responses
Salary (wages) / Income	76%
Job Security	49%
Social Status	37%
Flexible work arrangements (location, schedule)	23%
Proximity to Residence	19%
Safety / Security	8%
Employer provided benefits and perks	8%
Opportunities for promotion and career development	5%

Perception of Preparedness for Job (n=143)	Responses
Completely Prepared	50%
Largely Prepared	8%
Moderately Prepared	3%
Somewhat prepared	31%
Not Prepared	4%

Availability of Jobs (n=360)	Responses
Very adequate	6%
Somewhat adequate	56%
Neither adequate nor inadequate	2%
Somewhat inadequate	5%
Very inadequate	24%
Don't Know	8%

**For multiple-choice questions, the responses add up to more than 100%*

Among the challenges, which the youth see in pursuing their ideal careers, "lack of jobs locally" figures as the most cited challenge, followed by "lack of guidance / information", "low financial strength", and "lack of sufficient education qualification". The responses are presented below:

Table 12: Career Aspiration – Challenges in pursuing desired career

Challenges (n=360)	Responses*	Challenges (n=360)	Responses*
Lack of jobs locally	41%	Lack of technical / vocational skills	9%
Lack of guidance / information on appropriate job	23%	Lack of family support / social acceptance of girls being engaged in economic activity	7%
Low financial strength	18%	Lack of work experience	6%
Lack of sufficient education qualification	18%	Inadequate infrastructure to access work-place	1%
Pressure related to getting married	17%	Lack of Soft Skills	1%
Unsafe working environment	13%	No Challenge	11%

**Multiple-choice questions, the responses may add up to more than 100%*

The key factors determining their employability, according to the respondents, were years of relevant work experience, and education attainment. The responses are presented below:

Table 13: Key Requirements to enhance employability and steps to achieve aspirations (n=360)

Key Requirements to enhance employability (n=360)			
Requirements	Responses	Requirements	Responses
Years of relevant work experience	49%	Certifications of Technical Skill	6%
Education attainment (level of education)	19%	Relevant work experience in similar position or field	5%

Key Requirements to enhance employability (n=360)			
Requirements	**Responses**	**Requirements**	**Responses**
Soft skills	18%	Performance in Interviews	2%
Key Skills Required for desired job (n=360)*			
Clear communication	77%	Coordination Skills	9%
Team work	25%	Creativity, originality and initiative	6%
Analytical thinking	20%	Attention to detail	2%
Time management	13%	Critical thinking and analysis	2%
Leadership	13%	Complex problem-solving	1%
Active listening	10%	Others	4%
New Steps to achieve aspirations (n=360)*			
Apprenticeship / Gathering Work Experience	39%	Already Achieved	25%
Vocational/ Skill Training	26%	Continuing Education	22%

**Multiple-choice questions, the responses may add up to more than 100%*

Female respondents aspired for careers in Food Processing, Iron & Steel, Sports, and BFSI sectors. Male respondents aspired for Handloom & Handicrafts, BFSI, Security and Iron & Steel sectors.

Table 14: Sector-wise Career Aspirations

Females	Responses	Males	Responses
Food Processing	45%	Handloom & Handicrafts	35%
Iron & Steel	13%	BFSI	13%
Sports	13%	Security	11%
BFSI	11%	Iron & Steel	10%
Gems & Jewellery	6%	Furniture and Furnishing	8%
Electronic & IT Hardware	5%	Chemical & Pharmaceuticals	5%
Chemical & Pharmaceuticals	4%	Healthcare Services	5%
Agro-business	3%	Real Estate	4%

**Multiple-choice questions, the responses may add up to more than 100%*

Around 80% of the respondents have expectations of monthly income less than ₹ 20,000. 57% of the respondents in NEET, income expectations are below ₹ 10,000 per month.

Figure 17: Monthly Income Expectations

Salary / Category	NEET	Self Employed	Student	Waged/salaried employed
₹10,000 and below	57%	32%	26%	23%
₹10,001-₹15,000	17%	26%	45%	43%
₹15,001-₹20,000	9%	15%	15%	10%
₹20,001-₹25,000	9%	8%	9%	12%
₹25,001 and above	7%	20%	5%	10%

N=	76	66	141	77

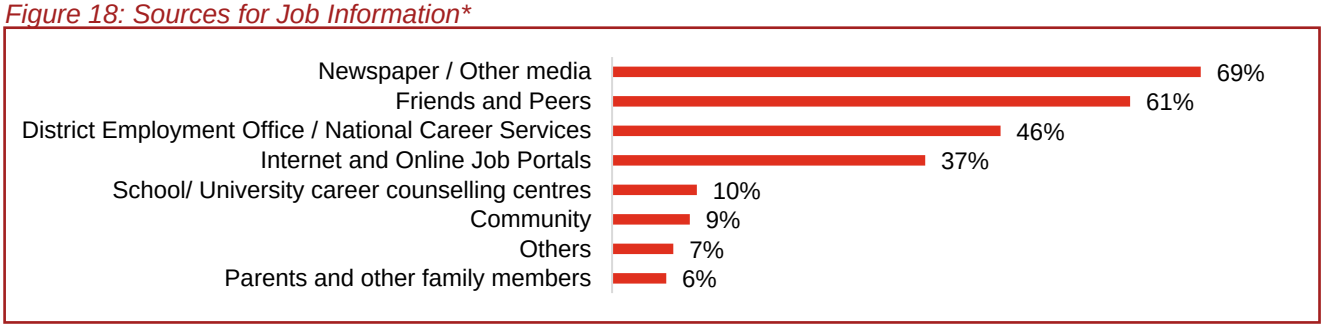
More than 90% of the respondents preferred a job within their District. Around 15% were willing to migrate outside the District for work.

Table 15 Preference for Work Location

	Female	Males
Within district	94%	92%
Within hometown	65%	45%
Outside District but within Tamil Nadu	11%	17%
Outside Tamil Nadu but within India	0%	0%

**Multiple-choice questions, the responses may add up to more than 100%*

*Figure 18: Sources for Job Information**



**Multiple-choice questions, the responses may add up to more than 100%*

The most common source of job-related information cited by the respondents is 'newspaper/ other media' (69%) 'friends and peers' (61%). Around 46% stated that they get job-related information from the District Employment Office/ National Career Services.

Around 60% the respondents stated that counselling services were somewhat adequate. In terms of their expectations from counselling services, nearly half of the respondents wanted information on placement services (47%) and relevant vacancies (45%).

Figure 19: Accessibility to Counselling Services

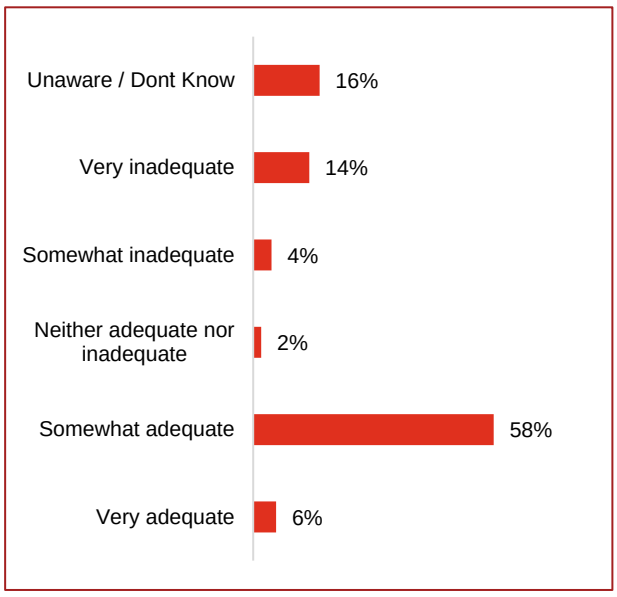
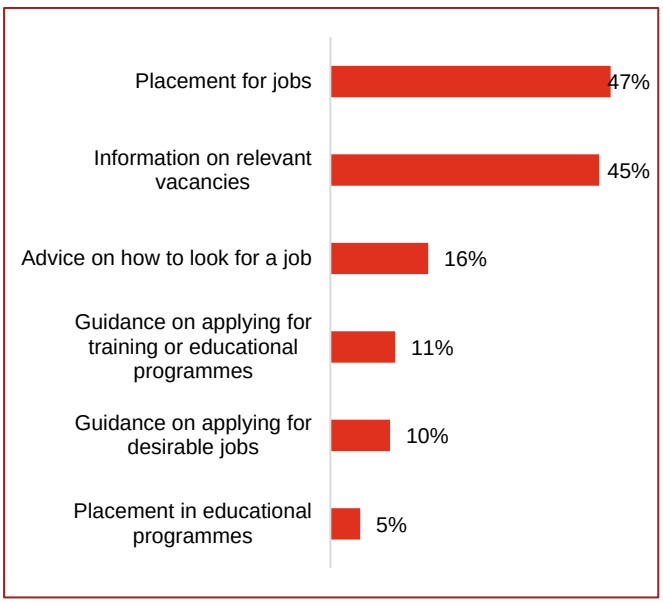


Figure 20: Preferences for Counselling Services



**Multiple-choice questions, the responses may add up to more than 100% (n=360)*

2.6. Skill Training Preferences of Youth

Around 11% of the respondents stated that they were aware of government-run training programs, and. However, no respondent had undergone skill training in the past. Around 21% of respondents (77 respondents in total) had stated they would be willing to undergo training for their ideal job. Within these, around 55% of respondents indicated a preference for part-time training, and 94% in short-term courses (duration less than 6 months). With respect to ranking reputation of the certifying body, internship / apprenticeship quality and practical experience, more than 65% of respondents stated that all these factors were ‘Very Important’.

3. Employers' and Other Stakeholders' Perspective

3.1. Employer Survey

The quantitative employer survey covered 45 employers from various sectors. A focus group discussion was also conducted with industry representatives, associations, etc. to shed light on aspects such as demand, perception of skill level of local workforce, and challenges faced by industries. Around 43% of the employers were from Small Industries category, while 39% were in medium category. Tourism, Travel and Hospitality, Plastics and Auto and Autocomponents were the prominent sectors represented in the district.

Figure 21 Distribution of Industries by size

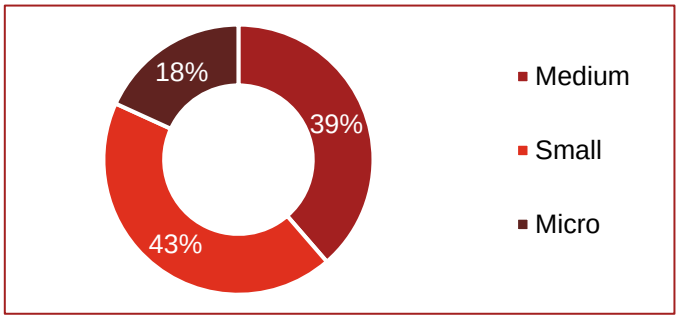


Table 16 Sector wise coverage of Industries in Employer Survey

S.No	Sector	Number of Industries Surveyed	S.No	Sector	Number of Industries Surveyed
1	Tourism Travel and Hospitality	14	7	Machinery Equipment	2
2	Plastics	7	8	Agro-business	1
3	Auto and Auto Components	6	9	Building Construction Painting Industry	1
4	Retail	5	10	Electronic and IT Hardware	1
5	Iron, Steel and Other Metals	4	11	Media & Entertainment	1
6	Chemical & Pharmaceuticals	3	12	Textile and Apparel	1

Table 17 Modes and Challenges in Recruitment Process

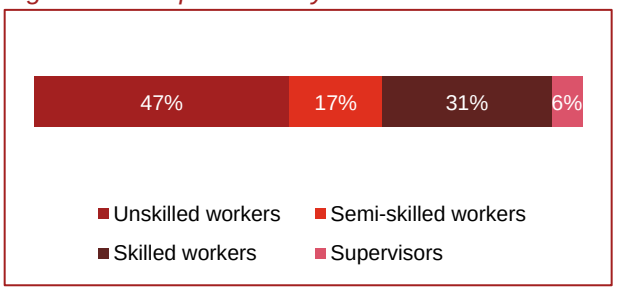
Key Modes of Recruitment*			Key Challenges faced in Recruitment*		
S.No	Particulars	%	S.No	Particulars	%
1.	Employee Reference/ Other Referrals	93%	1.	Candidate Disinterest and Attitude	82%
2.	Local Community	20%	2.	High local wages	75%
3.	Others	7%	3.	Lack of requisite core skills	7%
4.	Advertisements in Newspapers	5%	4.	Nature of work requires strenuous physical labour None	9%
5.	Social Networks	5%			
6.	Recruitment/ Manpower Agencies	2%	5.	Candidate Disinterest and Attitude	82%
7.	Others	2%			

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

On average, the units had 16% of female employees in their workforce. Recruitment was predominantly done by employee referrals. Challenges with respect to recruitment include candidate disinterest and attitude (82%), high local wages (85%).

With respect to organization of the workforce by skill level, 47% of workers on average in the units were unskilled, 17% semi-skilled and 31% semi-skilled workers. Most of the firms hired locally. 11 firms affirmed the employment of migrant workers from other states. The most prominent source for migrant workers were the Eastern states of India (around 66%). The annual attrition rates for male and female workers were 3% and 2% respectively. Causes for attrition included better job opportunities (76.7%) lower wages locally (74.4%) and candidate disinterest (74.4%).

Figure 22: Respondents by Skill Level of Workers



With respect to growth prospects and adoption of technology, the following findings emerged: almost 90% of the respondents felt that growth prospects were medium to high, and 66.7% indicated interest in medium-level technology adoption. However,only 2.1% stated that they had plans for automation.

Table 18: Growth Prospects and prospective adoption of technology

Growth Prospects of Industry	%	Level of Technology adoption	%
High	19%	Medium	68%
Medium	71%	Low	18%
Low	10%	Can't Say	14%

55% of the respondents were very interested in working with the Govt. on Skill Development programs.

3.2. Other Stakeholders' Perspectives

The study also included in-depth interviews of 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 was held under the aegis of the District Industries Centre. The key areas of discussions are listed below:

Table 19: Key Points from discussions

S No	Topic	Findings
1.	Industrial Development	• The district is one of the most backward in the state in terms of Industrial Development and ranks 27th in terms of Per Capita Income, 24th in terms of Household disposable income and 23rd in terms of manufacturing output. • There are very little major investments from public / private sector. The geographical location was highlighted as a challenge in attracting newer investments. • Trade and Tourism is the primary driver of the economy in the district. The temple town of Rameswaram, is the second most popular tourist destination in the state by arrivals with more than 2.29 Crore arrivals in 2015. • There is a greater potential to leverage on the tourism potential through adventure and beach tourism in the shallow waters of the Palk straight / Gulf of Mannar. • The district houses the highest fishermen population (23%) and the rich Gulf of Mannar provides for 20% of all the marine fishing produce of the state. However, in recent times, over fishing, international maritime issues with Sri Lanka have posed challenges to the continued productivity. • There is a requirement to promote alternate modes of fishing including cage culture and seaweed cultivation in the district.
2.	Skill development programs	• The awareness on skill development programs was low among industries in the district • Programs must be structured based on local industries to understand new innovations. • Women focussed skill development programs are essential to tap into the higher participation among rural women, especially among the fisherfolk.
3.	Labour Supply	• The relative lack of industrialization 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, Madurai and Coimbatore. • According to the Tamil Nadu Migration Survey-2015, Ramanathapuram is among the highest estimated out-migrants (intra national / intra state migrants). The District ranks 3rd in the State in inward remittance. • The large remittance is said to provide considerable cushion to the local youth alongside the strong social security system. These reduce the opportunity costs for unemployment and the youth are likely to wait longer in the labour market to find a job of their liking**.** This has also caused a shortage of workers for the local industry, especially in the skilled worker category including students at ITI/ 10th and 12th level. • There is a considerable demand for workers with entry-level skills as the local youth are very educated and don't aspire for them. These roles are taken up largely by migrants from parts of Eastern India. • The manufacturing or food processing sectors often lose out on workers to retail or trade. • Migrant workers are largely employed in the tourism and hospitality sectors, especially due to the large number of tourists from other states.
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 fieldwork 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, Madurai and Coimbatore. • There is negative perception in the community about blue-collared jobs.
5.	Traditional Sectors	• Fishermen would require training in aquaculture to diversify their production and increase productivity.
6.	Emigration	• The District ranks 3rd in the state in terms of number of emigrants with more than 1.37 lakh emigrants as per the Tamil Nadu Migration Survey (2014-15). • The emigration from Tamil Nadu is dominated by countries in the Gulf Cooperation Council countries which account for nearly half of the emigrants. • It is observed that most of the emigrants to these countries are low-skilled labourers in the oil, construction and infrastructure industries. However, in recent times, the demand for such labour is reducing forcing several emigrants to return.[17] • Studies have identified roles with higher skills in sectors like Healthcare, Education, Media & Marketing, Transport & Logistics, Engineering, Retail & Consumer and, Banking as the key sectors of growth[18]. • It is thus necessary to ensure, the aspiring emigrants are up-skilled / re-skilled appropriately to meet this demand.

[17] Kerala Migration Survey, 2014
[18] Employment and Salary Trends in the Gulf 2015

4. Skill Gap Analysis

4.1. Skill Gap Assessment - Incremental Demand[19] for Skilled & Semi-skilled Workforce

The District is witnessing a growing industrial sector. The following sectors show high levels of demand: **manufacturing, construction, education and healthcare, and trade and repair services** show high levels of demand for both skilled and semi-skilled workers. The detailed methodology is presented in the Appendix.

Table 20: 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	
Agriculture	(1,251)	(1,580)	(2,831)	(8,756)	(11,063)	(19,818)	(22,650)
Allied Activities of Agriculture	(3)	(5)	(8)	(24)	(32)	(56)	(64)
Mining and quarrying	(14)	(17)	(31)	(23)	(29)	(52)	(83)
Manufacturing	959	1,400	2,360	1,918	2,801	4,719	7,079
Utilities	(30)	(33)	(63)	(59)	(66)	(125)	(188)
Construction	317	473	790	792	1,182	1,975	2,764
Trade & Repair Services	260	362	622	899	1,253	2,152	2,774
Hotels and restaurants	159	221	380	307	428	736	1,115
Logistics	180	251	431	431	604	1,035	1,466
Communication (Telecom , IT / ITES)	228	349	577	114	175	288	865
BFSI	297	451	748	149	225	374	1,123
Real Estate & Business Services	93	139	232	232	346	579	810
Public Administration	153	218	372	123	175	298	670
Education, Human health & Social Work	602	857	1,460	482	686	1,168	2,627
Arts, entertainment and recreation	362	525	888	290	420	710	1,598
Other Services	1,789	2,596	4,386	1,432	2,077	3,509	7,894
Other Services	658	959	1,618	527	768	1,294	2,912
Total Demand[20]	5,400	7,844	13,244	7,169	10,372	17,542	30,785
Total Supply	3,220	4,293	7,513	7,313	9,750	17,063	24,576
Skill Gap	2,180	3,551	5,730	(143)	622	479	6,209

[19] 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.
[20]Includes only positive demand numbers

5. District Skilling Action Plan and Recommendations

5.1. District Skilling Action Plan–Key Training Projects

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 six years with a focus on youth. The job roles have been shortlisted based on the analysis of findings from the skill gap analysis, secondary research, youth aspiration survey, enterprise survey, District level consultations and discussions with industry associations

Table 21: Summary of Training Projects

S No	Sector	Trades	Target (Persons)	Budget (₹)
1.	Tourism and Hospitality	• Billing Executive • Chef-de-partie • Assistant Catering Manager • Assistant Facility Manager • Front Office Associate • Guest House Caretaker • Guest Relations Manager • Kitchen Helper • Laundry Machine Operator • Meeting, Conference and Event Planner	4,000	₹6.71 Crores
2.	Healthcare	• General Duty Assistant • Blood Bank Technician • Cardiac Care Technician • Diabetes Educator • Emergency Medical Technician – Basic • Medical Records & health Information Technician	2,000	₹5.82 Crores
3.	Agriculture & Food Processing	• Sustainability, Modern Fishing & Safety Training • Boat & Ship Repair • Export based training for fisherman cooperative	3,500	₹4.97 Crores
4.	Retail & Wholesale	• Sales Associate • Team Leader • Store Manager • Cashier	850	₹2.72 Crores
5.	Construction	• Foreman – Electrical Works (Construction) • Metal Inert Gas/Metal Active Gas/Gas Metal Arc Welder (MIG/MAG/GMAW) • Mason Marble, Granite and Stone • Foreman Wet Finishing and Flooring • Bar Bender and Steel Fixer • Assistant Electrician	3,500	₹10.24 Crores
6.	Textile and Apparel	• Cutting Supervisor • Knitting Machine Operator • Fabric Checker	1,500	₹2.79 Crores
		Total Training Target and Training Cost	16,250	₹33.72 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 Tourism and Hospitality Sector							
Key Economic Drivers:							
• The Rameswaram town in the district is the second most popular destination in the state with over 2 crore annual visitors.							
Key Partners: Dept. of Tourism, Tourism & Hospitality SSC							
Job Roles:	**NSQF Level**	**NSQF Code**	**Cost Category**	**Duration of Training (hours)**	**Target Group**	**Training Target**	**Cost of Training**
Billing Executive	4	THC/Q5801	2	280[21]	Women, College students	400	₹ 0.55 Crores
Chef-de-partie	6	THC/Q0404	1	285		400	₹0.63 Crores
Assistant Catering Manager	6	THC/Q5901	2	400[22]		400	₹0.78 Crores
Assistant Facility Manager	7	THC/Q5707	2	435		400	₹0.85 Crores
Front Office Associate	4	THC/Q0102	3	280		400	₹0.48 Crores
Guest House Caretaker	5	THC/Q0501	2	370		400	₹0.73 Crores
Guest Relations Manager	6	THC/Q0108	2	360[23]		400	₹0.7 Crores
Kitchen Helper	2	THC/Q3303	2	260		400	₹0.51 Crores
Laundry Machine Operator	4	THC/Q0205	2	240		400	₹0.47 Crores
Meeting, Conference and Event Planner	5	THC/Q4401	3	360[24]		400	₹0.62 Crores
Total Training Costs						4,000	₹ 6.31 Crores
Assessment Costs (₹1,000 per Assessment)							₹ 0.40 Crores
Total							₹ 6.71 Crores
Key Considerations: • Women and college graduates can be targeted • Local employers can provide internships • Language skills can also be imparted							

[21] Training Hours taken in similarity front office associate
[22] Training hours based on Industry feedback and reference to Multi Cuisine Cook
[23] Hours designed based on industry feedback and reference to 'Tour Manager'
[24] Hours designed based on industry feedback and reference to 'Tour Manager'

Training Project 2

Name of the Project: Training in Healthcare Sector

Key Economic Drivers:

- Ageing Population with 14% of the population expected to be over 60 years in 2025 compared to 10% in 2011.
- Tamil Nadu Govt. has announced plans to extend provide palliative care to all 385 blocks of the district
- Universal Healthcare schemes at the central and state level are being rolled out.
- Key recommendation of the 2018, IIT Madras study on Universal Health Care was the training of Village Health Nurses (VHNs).
- Key sector in demand in the GCC countries

Key Partners: Hospitals, Nursing Colleges

Job Roles:	**NSQF Level**	**NSQF Code**	**Cost Category**	**Duration of Training (hours)**	**Target Group**	**Training Target**	**Cost of Training (₹ Crores)**
General Duty Assistant	4	HSS/ Q5101	2	400[25]	School Graduates – focus on women	250	₹0.49 Crores
Blood Bank Technician	4	HSS/ Q2801	1	1,000		250	₹1.37 Crores
Cardiac Care Technician	4	HSS/ Q0101	1	840		250	₹1.15 Crores
Diabetes Educator	4	HSS/ Q8701	2	240		250	₹0.29 Crores
Emergency Medical Technician - Basic	4	HSS/ Q2301	1	240		500	₹0.66 Crores
Medical Records & health Information Technician	4	HSS/ Q5501	1	600		500	₹1.65 Crores
Total Training Costs						2,000	₹ 5.61 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.2 Crores
Total							₹5.81 Crores

Key Considerations:

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

[25] Based on Industry feedback as requirement is less than the 600 Hours described in NSQF

Training Project 3

Name of the Project: Training Program in Fishing and Allied						
Key Economic Drivers: • Prominence of marine fishing (the largest in the state) • Purse fishing activities produce large amounts of by-catch (unintentionally caught fish) • Destruction of corals due to unsustainable fishing practices in the Bio-Reserve • Around 67,000 people are involved in fishing and allied activities[26], which is the highest in the state. This provides a sizable population to conduct short term trainings for value addition.						
Key Partners: Fisheries College						
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training (Hours)**	**Target Group**	**Training Target (People)**	**Cost of Training (₹ Crores)**
Sustainability, Modern Fishing & Safety Training[27]	4	AGR/Q5106	240	Class V/ VIII Pass	3,500	₹4.61 Crores
Boat & Ship Repair[28]	4	AGR/Q5103	240			
Export based training for fisherman cooperative	-	QP Not available; to be developed	240[29]			
Total Training Costs					3,500	₹4.61 Crores
Assessment Costs (₹1,000 per Assessment)						₹0.35 Crores
Total						₹4.96 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 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.						

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

Training Project 4

Name of the Project: Training Program in Retail Sector

Key Economic Drivers:

- Estimated Incremental Demand of 2,774 skilled and semi-skilled workers
- Expansion of retail chains from other Districts

Key Partners: RASCI

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 VIII Pass outs	1000	₹1.37 Crores
Retail Team Leader	5	RAS/Q0105	2	350	Class XII / Graduates	300	₹0.51 Crores
Retail Store Manager	7	RAS/Q0107	2	350		300	₹0.51 Crores
Retail Cashier	2	RAS/Q0102	2	200		150	₹0.15 Crores
Total Training Costs						1,750	₹2.54 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.18 Crores
Total							₹2.72 Crores

Key Considerations:

Can focus on Women across the district and used as a means to increase their labour force participation.

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

Training Project 5

Name of the Project: Training in Construction Sector							
Key Economic Drivers:							
• Due to urbanization, economics growth and trade, construction sector will also grow							
Key Partners: ITI, Polytechnic colleges, engineering colleges							
Job Roles:	**NSQF Level**	**NSQF Code**	**Cost Category**	**Duration of Training (hours)**	**Target Group**	**Training Target**	**Cost of Training**
Foreman – Electrical Works (Construction)	5	I/CON/Q0604	1	400[30]	Young men and women	500	₹1.1 Crores
Metal Inert Gas/Metal Active Gas/Gas Metal Arc Welder (MIG/MAG/GMAW)	4	I/CSC/Q0209	1	600		500	₹1.65 Crores
Mason Marble, Granite and Stone	4	CON/Q0106	1	600		1,000	₹3.29 Crores
Foreman Wet Finishing and Flooring	5	CON/Q0109	1	600[31]		500	₹1.65 Crores
Bar Bender and Steel Fixer	4	CON/Q0203	1	400		500	₹1.1 Crores
Assistant Electrician	3	CON/Q0602	1	400		500	₹1.1 Crores
Total Training Costs						3,500	₹9.88 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.35 Crores
Total							₹10.24 Crores
Key Considerations: • Dropout and rural youth can be targeted • Sustainability can be a focus in training							

30 No Notional hours xied – QP CON/Q0602 used for reference
31 No notional hours fixed, QP - CON/Q0106 taken as reference

Training Project 6

Name of the Project: Training in Textile and Apparel sector							
Key Economic Drivers: • Second highest sector by Credit Offtake doubling between 2015-16 and 2016-17 indicating investments • Highest contributor for GVA in 2104-15 and one of the largest employers							
Key Partners: Textile & Apparel SSCs, Industries Kovilpatti							
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[32]	1	320 hours		1,000	₹1.76 Crores
Fabric Checker	4	TSC/Q 2301	1	320 hours		250	₹0.44 Crores
Total Training Costs						1,500	₹ 2.64 Crores
Assessment Costs (₹1,000 per Assessment)							₹0.15 Crores
Total							₹2.79 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.							

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

5.2. Key Recommendations

- **Promotion of Large Industries and Investments in the District:** qualitative consultations with industry representatives revealed that the lack of major public industrial investments is a major area of discontent. The investments and Oil & Gas sector has been welcomed. However, it is seen as largely capital-intensive sector with limited direct employment generation possibilities. The local industries expressed desire for greater investments from both public and private sector, encouraged through special initiatives like Special Economic Zones.

- **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; and (iii) Dip in Quality Assurance owing to varied standards, target groups and monitoring frameworks. The Institute Management Committees of ITIs (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.

- **Promotion of Traditional Industries:** Seafood processing, handicrafts from seashells, sea weed cultivation are prominent traditional sectors in the district. The ventures face marketing challenges, which need to be overcome to ensure sustainability. 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.

- **Project-oriented apprenticeship/ internship programs:** Based on qualitative consultations, ITI and Polytechnics can develop internship programs which are organized around projects – problem statements can be developed in consultation with industry players, and incentives given to students to solve them. The programs can end in competitions, or presentation of theses. Such a program would allow students to develop their practical skills within an organized environment supervised by the training institutions and the industry.

- **Market linked Trainings:** The district's population has among the highest share of emigrations in the state, especially to the GCC countries, Singapore and Malaysia. There is an opportunity to train youth in courses which are at a higher level of the NSQF, especially at supervisory roles and those with higher technological requirements. ITIs and polytechnics should increase the exposure to advanced machinery or content (like safety) to make the candidates job ready. Tourism & Hospitality, Construction, Healthcare, Food Processing, Agro-business and Trade are key areas of employment potential require augmentation of training capacity.

Appendix

A.1 Methodology for Block Selection in 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:

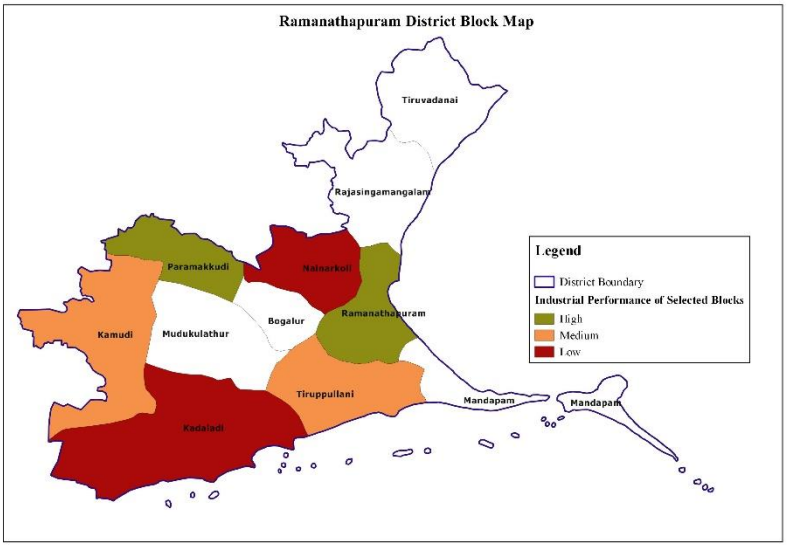
- **0 to 33.33 percentile value: Low**
- **33.33 to 66.67 percentile value: Medium**
- **66.67 to 100 percentile values: High**

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 Ramanathapuram.

- Low – Kadaladi, Nainarkoil
- Medium – Kamudi, Tiruppullani
- High –Paramakkudi, Ramanathapuram

Figure 23: Blocks Selected for Survey in Ramanathapuram

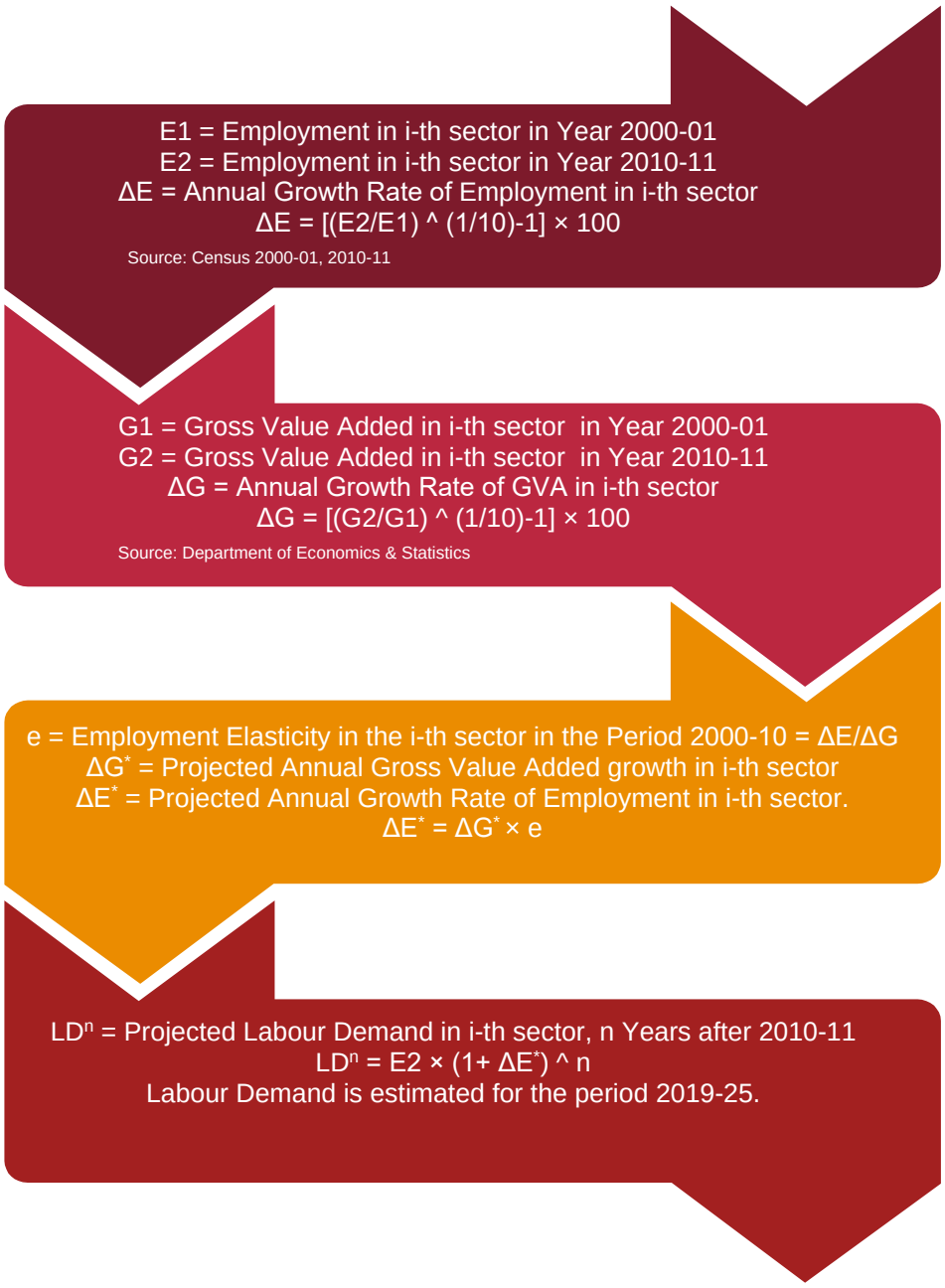


A.2 Methodology for Present and Future Labour Demand – Supply and Gap Estimation

Demand Estimation

We adopted employment elasticity approach to forecast the labour demand. Employment elasticity is the measure of percentage change in employment associated with one percentage change in economic growth. The employment elasticity approach indicates the ability of an economy to generate employment opportunities. We estimated sector specific employment elasticity using historical data and assumed it to remain constant in the near future. If the estimated sector specific elasticities at district level varied significantly with national and state level estimates, we rationalized the estimated elasticities based on national and state level trends. Automation and sector-specific investments are other factors that are 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:

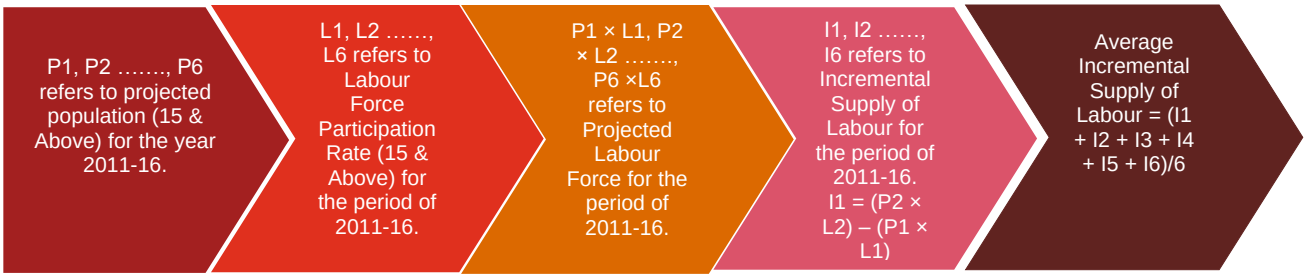
Figure 24: Steps in Demand Estimation



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[33]. 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 25: Steps in Supply Estimation



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

A.3 Credit Outstanding by Occupation - Ramanathapuram

Industry category as per RBI	Amount in INR Crore				CAGR between 2013-14 and 2016-17
	2013-14	2014-15	2015-16	2016-17	
Retail Trade	287	211	340	261	-3%
Textiles	159	154	152	150	-2%
Wholesale Trade	87	43	44	45	-19%
Engineering	14	21	37	38	39%
Construction	15	27	48	29	25%
Transport Operators	26	47	31	29	4%
Other Industries	31	27	41	24	-8%
Tourism, Hotel & Restaurants	15	15	19	19	7%
Electricity, Gas & Water	2	1	16	16	114%
Food Manufacturing & Processing	10	10	10	14	13%
Paper, Paper Products & Printing	6	6	6	6	3%
Mining & Quarrying	3	4	4	4	1%
Chemicals & Chemical Products	7	4	4	3	-24%
Basic Metals & Metal Products	2	5	7	3	11%
Vehicles,Vehicle Parts & Transport Equipments	2	2	2	2	0%
Woods and Wood Products	1	3	2	1	0%
Manufacture of Cement & Cement Products	1	2	2	1	9%
Leather & Leather Products	0	0	0	1	138%
Beverage & Tobacco	0	0	1	1	46%
Petroleum, Coal Products & Nuclear Fuels	1	1	1	1	5%
Recreation Services	8	1	1	1	-56%
Rubber & Plastic Products	7	1	0	1	-54%
Gems and Jewellery	0	0	1	0	129%

A.4 List of Stakeholders

S No	Stakeholder	Organization
1.	Directorate of Employment and Training	Govt.
2.	District Industries Centre	Govt.
3.	Aleef Boarding & Lodging, Hotel and Courier	Industry
4.	GMR Tiles Park	Industry
5.	Sri Balaji Steel	Industry
6.	Sri Shakthi Engineering	Industry
7.	Sri Vinyaka Trading Company	Industry
8.	Everlast Roofing	Industry
9.	Tatchina Rubber Industries	Industry
10.	V. Nagalingam Petrol Pump	Industry
11.	Senthil Electronics	Industry
12.	Pandian Power Products	Industry
13.	Dhanalakshmi Engineering Works	Industry
14.	Sathish Engineering Works	Industry
15.	Valarmathi Pipes	Industry
16.	Sri Vaari Enterprises	Industry
17.	Srinivasa Industrial	Industry
18.	Resi Engineering Company	Industry
19.	Eswar Motors	Industry
20.	Sri Siva Durga Engineering	Industry
21.	Sri Krishna Enterprises	Industry
22.	Ganesh Welding Engineering Works	Industry
23.	Jaya Lathe Works	Industry
24.	Saravana Sweets & Backery	Industry
25.	S.K Sellam Sons Petrol Pump	Industry
26.	Hotel Vasantham	Industry
27.	Optima Heat Technologies	Industry
28.	Sri Rangan Elec & Mech Industry	Industry
29.	Tirumurugan Industries	Industry
30.	AVM Masala	Industry
31.	A. Pandi Cement Works	Industry
32.	Paramakudi Engineering Cluster Private Limited	Industry
33.	Jayaraj Auto Mobile Agency	Industry
34.	Kalyani Mills	Industry

35.	Asian Power Lines	Industry
36.	Sri Saravana Electro Pump	Industry
37.	Saravana Motors	Industry
38.	Venkateswara Plastics	Industry
39.	Satish Engineering Works	Industry
40.	Ramnad PET	Industry
41.	Dharani Food Products	Industry
42.	Karuppasamy Coir Industries	Industry
43.	S R Sungu Industries	Industry
44.	K S Industry	Industry
45.	K G Products	Industry
46.	KSB Fabrication	Industry
47.	Doss Industries	Industry