Skilling for the Future

Skill Gap Assessment & Action Plan for Tamil Nadu

District Skill Development Plan for Nagapattinam

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List of Abbreviations

S.No	Abbreviation	Meaning
1.	TNSDC	Tamil Nadu Skill Development Corporation
2.	PMKVY	Pradhan Mantri Kaushal Vikas Yojana
3.	ITI	Industrial Training Institute
4.	NSDC	National Skill Development Corporation
5.	DDU-GKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana
6.	NULM	National Urban Livelihood Mission
7.	DES	Directorate of Economics and Statistics
8.	BFSI	Banking Financial Services and Insurance Sector
9.	LFPR	Labour Force Participation Rate
10.	NEET	Not in Employment, Education or Training
11.	TN-GIM	Tamil Nadu Global Investors Meet
12.	GDDP	Gross District Domestic Product
13.	GSDP	Gross State Domestic Product
14.	NSQF	National Skills Qualification Framework
15.	QP-NOS	Qualification Pack National Occupational Standards
16.	SSC	Sector Skill Council
17.	Tr. & Tou.	Trade and Tourism Sectors
18.	Manuf.	Manufacturing
19.	ASI	Annual Survey of Industries
20.	DIC	District Industries Center
21.	Pub. Admin.	Public Administration
22.	IT-ITES	Information Technology and Information Technology Enabled Services
23.	DIC	District Industries Center
24.	GSVA	Gross State Value Added
25.	NIC	National Industrial Classification
26.	PSU	Public Sector Undertaking
27.	SIPCOT	State Industries Promotion Corporation of Tamil Nadu Ltd.
28.	SIDCO	Small Industries Development Corporation Limited
29.	TANSIDCO	Tamil Nadu Small Industries Development Corporation Limited
30.	TNSRLM	Tamil Nadu State Rural Livelihoods Mission
31.	TIDCO	Tamil Nadu Industrial Development Corporation
32.	ASER	Annual Status of Education Report
33.	CPCL	Chennai Petroleum Corporation Limited
34.	GSVA	Gross State Value Added
35.	MSME	Micro, Small & Medium Enterprises
36.	NIC	National Industrial Classification
37.	NSDA	National Skill Development Agency

1. 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 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 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 retained the services of PricewaterhouseCoopers Private Limited (PwC) to carry out Gap Assessment and Action Plan for Tamil The study aims at identifying sources for self and wage employment in all 32 districts, estimating the sector-wise current and future labour demand (in the next 10 years) by industry, and assessing the overall labour supply and estimating the existing and emerging skill gaps.

The Skill Gap study offers insights into: (i) which skills are required to support the 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 next five 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, market, educational and skill development profile. The second phase of the study comprised the following:

1. Youth aspiration survey: a quantitative survey covering 360 youths across the following groups - employed (self-employed, wage-employed, employed in formal and informal sectors), students in formal education (higher secondary schools and colleges), 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: Mayiladuthurai, Nagapattinam, Thirumarugal, Keelaiyur, Talanayar and Vedaranniyam.

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

2. Quantitative employer survey, covering 16 employers for this district with adequate representation from Large, Medium, Small and Micro Industries across the key sectors defining the district economy.

3. L   &M   &J   &LMJ /&   &   &   &   & &   &   & &   &
including, district-level Industry Associations across priority sectors, officials from various government departments, representatives from various higher education institutions, and training service providers.

Estimation of labour demand and supply were undertaken based on analysis of data from credible sources such as, the Census of India, State and District Income 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[3].

Summary of Findings for District

Key findings of the study are presented hereunder:-

Demographic Analysis	• At 28 years, the median age of Nagapattinam is slightly higher than the Y & median age. It is also higher than the national average of 26 years. It is estimated to increase further to 35 years by 2026 indicating a much older population. Thus, the State needs to invest in skill development immediately to reap benefits of the demographic dividend. • The sex ratio in the district is 1,025, higher than the State sex ratio of 996. • T &worker population ratio is 60 percent, which is higher than the Y &average (57 percent).
Economic Analysis	• Nagapattinam grew at a CAGR of 4% between 2011-12 and 2016-17. • It ranks 22th in terms of GDDP per Capita, at 96,962 (2016-17).
	Agriculture Sector:
	• Crop cultivation has been adversely affected by vagaries of weather conditions in the past decade. The share of agriculture and allied sub-sectors has fallen from 20% in 2011-12 to 13% in 2016-17 of the district GDDP. • Fishing has emerged as a growing sector at a CAGR of 5% during the 2011-12 to 2016-17 period. • Increased urbanisation and unreliable weather conditions are making the agricultural sector less aspirational. Innovation and technology infusion into the sector may enhance the appetite of the youth to pursue careers within the agriculture sector, while also improving the & & & & 4
	Industrial Sector
	• Industrial sector grew at 7% CAGR between 2011-12 and 2017-18. • It accounted for 47% of the total output of the district in 2016-17. • Most of the Industries are labour intensive and provide employment opportunity for unskilled. More skilling intervention are required in this sector.
	Services Sector
	• Services sector contributed to 40% of the GDDP of Nagapattinam 2016-17. The sector grew at a CAGR of 4% between 2011-12 and 2016-17. • The key sub-sectors within the service sector in the District include BFSI, Repair, and Tourism; which have a growing demand.
Labour Market Analysis	• Nagapattinam has a marginally higher labour force participation (60%) than the State average (59%) owing to the larger share of working age population. • Most of the worker working in industries are involved in are Food Processing, Tourism, Construction, Fabrication, Repair, Healthcare, and BFSI.
Findings from Primary Survey	

[3] Common Cost Norms [http://www.minorityaffairs.gov.in/sites/default/files/common%20norms.pdf]

Youth Profile and Aspirations	• 2% of the youth respondents engaged in economic activity were working in a field unrelated to their education / training. 25.8% of the respondents are currently Not in Education, Employment or Training (NEET). • Over 51% of the youth aspire for employment in the Public Sector. • Salary (wages) / Income, Social Status, Job Security were key determinants of selection of work. • Relevant work experience, soft skills, and certified technical skills were reported to be the key factors that determine employability and employment. • Female respondents aspired for teaching, agro business, BFSI, and healthcare, while Males aspired for Auto, logistics, agro business and BFSI sectors. • The median wage expectation & & 8; ,000 per month. Around 34% of the respondents have expectations of monthly inco & & & 862566 4
Employer & Other Key Stakeholders' Perspective	**Quantitative Survey** • 100% of the employers recruit through references; none of the employers recruit directly from institutions offering vocational courses; primarily because of the mismatch between industry requirement and skills of the trained youth. • High local wages, & 2& & & & & & &are the major challenges faced by the employers in the recruitment and retention of workforce. • On an average, 36% of the workers were unskilled while the rest were largely divided into semi-skilled (48%), skilled (14%) and supervisors (2%). • The prevailing competition on wages is a major driver for attrition. Workers leave their jobs even at a marginal increase in monetary benefits, even at the expense of losing other benefits like Insurance and Provident Fund. • The industries see a greater role for upskilled / re-skilled labour who can adopt to newer and efficient techniques. **Qualitative Inputs** • Manufacturing industries observed that the youth have preference for service sector jobs in Real Estate, IT/ITES and BFSI. • Key challenges in recruiting from vocational programmes was the skills mismatch of the youth and their lack of experience in working environment through internships or apprenticeships. • Training Service Providers, District officials, and Industries highlighted a dearth of good quality trainers for both soft skills and job-specific technical skills. 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 programmes. • Majority of the trainees are not absorbed into the workforce after the completion of their training and apprenticeship. Grade-based assessment should be carried out during apprenticeship training. The students should not be given any degree certificate unless they have cleared their apprenticeship training. This will incentivize the students to take their training seriously.
Incremental Demand	• Nearly 36 thousand incremental skilled and semi-skilled workforce are expected to be in demand over the next 6 years. • Key sub-sectors driving the demand are Food Processing, Tourism, Construction, Fabrication, Repair, Healthcare, and BFSI.

Key Recommendations:

Manufacturing

• The upcoming CPCL (Chennai Petroleum Corporation Ltd.) plant can conduct workshops for students at Nagapattinam to train them in order to be entrepreneurs who can open downstream units for LPG, High Speed Diesel, Kerosene, Naphtha, Bitumen, Lube Base Stocks, Paraffin Wax, Hexane and petrochemical feed stocks.

- SIDCOs and local industries should tie up with CPCL to set up downstream units for LPG, High Speed Diesel, Kerosene, Naphtha, Bitumen among others. The local training service providers should accordingly develop their curriculum based on the recommendation of SIDCO and CPCL which will help them to train accordingly so that are readily employable.

Training

- Industry visits in the nearby SIDCO units and regular hands-on training (through structured internships) will provide better exposure to the students.

- Courses based on Industry demand should be introduced at the training centres. Eg: SIDCO Nagapattinam houses number of fabrications, PVC and Fibre-board industries.

- Very few students are hired from the Government ITI. Relevant courses to match the industry demand needs to be identified and accordingly courses need to be designed. Courses also need to be upgraded and refined as per latest technological advancements.

- Government ITI Ettukudi lacks the required number of trainers. Upgradation of courses should be done in consultation with the local and regional employers.

Fishing and Tourism

- There is a scope in fish processing and packaging as there are no fish processing units in Nagapattinam. It has emerged as a profitable business in recent times.

- There is a growing demand for tourists guides, and skilled persons to be employed at hotels and restaurants among others. The Danish Fort at Tharangambadi, and the Bird Sanctuary in Point Calimere are also visited by tourists who visit Velankanni; and has seen a growth in the footfall of tourists in recent times.

2. District Profile

2.1. Demographic Profile

Nagapattinam District was, carved out of erstwhile the Thanjavur district in 1991. Known for its tourism and fishing, part of Nagapattinam District lies on the east coast to the south of Cuddalore District and another part of the District lies to the south of Karaikkal and Tiruvarur Districts. This District is divided into two revenue divisions of Nagapattinam and Mayiladuthurai. It has 491 revenue villages. There are 8 Taluks, 4 Municipalities, 8 Town Panchayats and 2 Census Towns in this district.

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

SN	Indicator	Nagapattinam	Tamil Nadu
1	Total population	16,16,450	7,21,47,030
2	Female population	818,323	36,009,055
3	Population Density per sq.km (2011)	629	555
4	Urban Population	22.6%	48.4%
5	SC population (as % of total population)	31.5%	20.0%
6	ST population (as % of total population)	0.2%	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)	35.6%	36.6%
10	ST population aged 15-34 years (as % of ST population)	34.3%	35.0%
11	Literacy rate	83.6%	80.3%

Snapshot of Nagapattinam's Demography
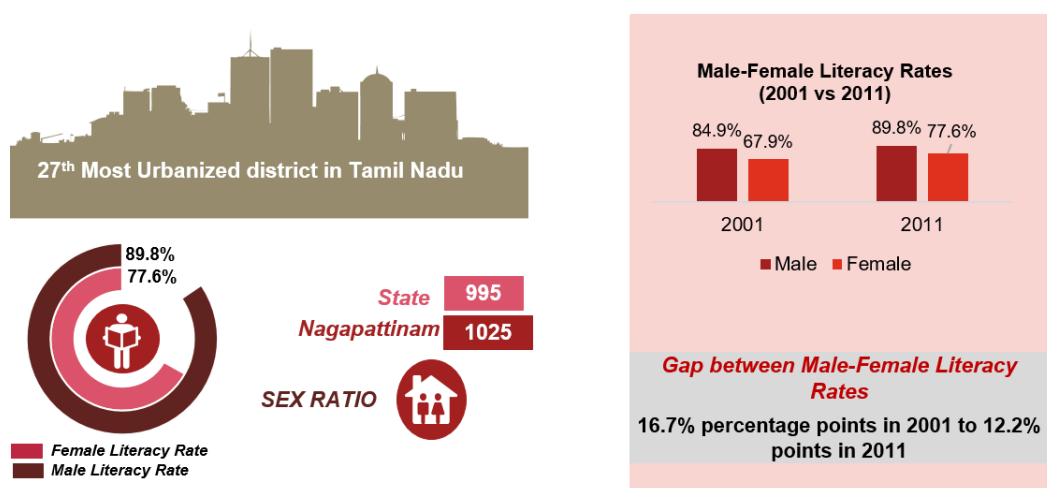
Key Highlights from the analysis of Census Data:

- **Population Growth and Urbanization:** The decadal growth rate **of the population in the District** was **8.6%** between 2001 and 2011, compared to **15.6%** at the State level. The District has recorded sex ratio of 1,025, 3rd highest among the districts in the State.

- **Literacy:** The District had a female literacy rate of 77.6% while the male literacy rate of 89.8%. These are lower than the corresponding literacy rates at the State level. The literacy rates among males increased by 5% while among females it increased by 10%, reducing the gap between them from a 16.7% in 2001 to 12.2% in 2011. The reducing gap between the male and female literacy rates indicates a higher level of female participation in education and improved educational attainment among females in the District.

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[4] Census 2011

- **Youth Demography:** More than **one-third** of the population was between 15-34 years in 2011. The median age during this period was **28 years**, which is lower than the median age of the State (29 years in 2011), indicating a relatively younger population in the district. The population is set to get older with median age in 2026 expected to be around 35 years. This is illustrated in the age-specific population pyramid of the district as seen below.
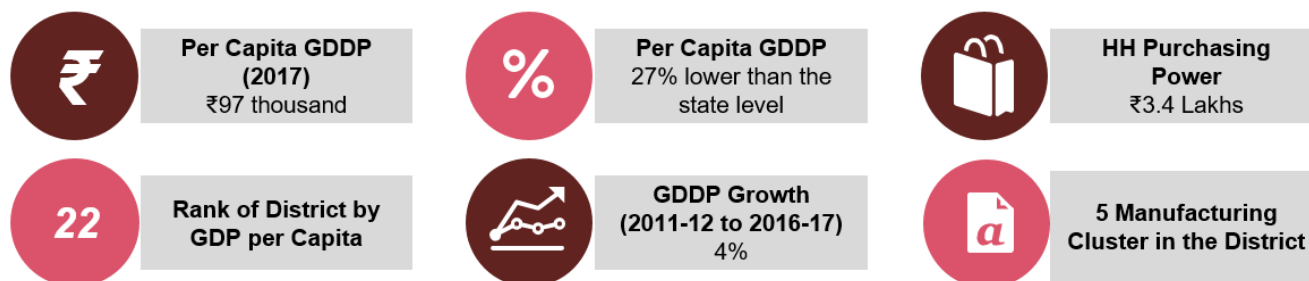
Figure 1 Age-wise Population Pyramid of Nagapattinam (2011 vs 2026)[5]
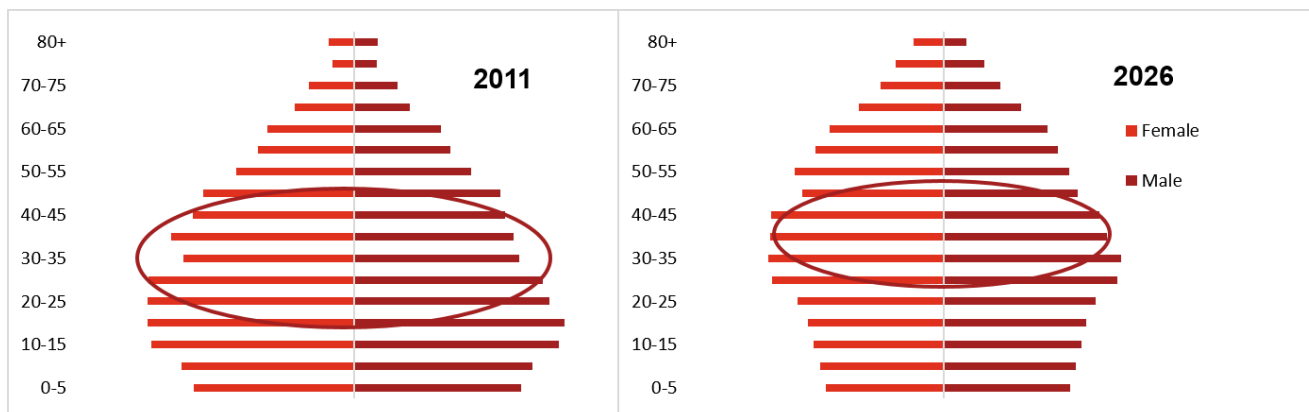
2.2. Economic Profile

Nagapattinam is famous for its tourism and fishing. The District ranks **22nd in terms of Per Capita Income and 25th in terms of Purchasing Power**.[6] The District grew at a CAGR of 4 percent between 2011-12 and 2016-17. There are 5 manufacturing clusters in the district.

Figure 2 Key Economic Indicators of Nagappattinam District

2.2.1. Sector Analysis[7]

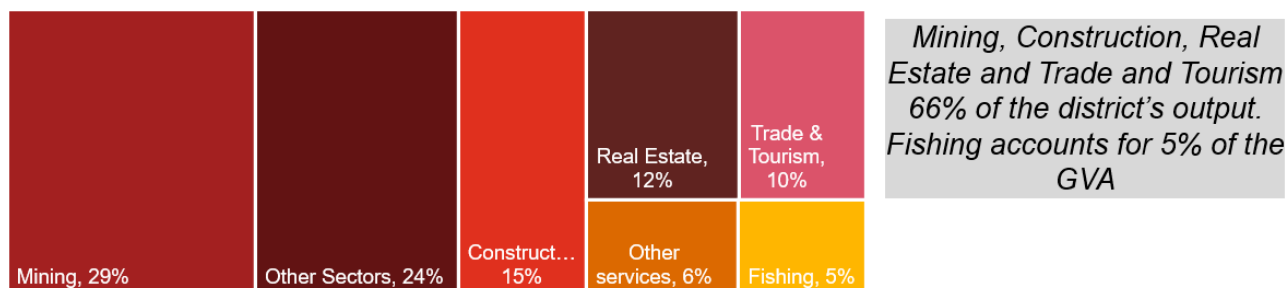Source: Directorate of Economics and Statistics, TN

Accounting for about 47% of the District output in 2016-2017, the industry sector dominates the economy of the District. Nagapattinam is one of the less prosperous districts with a per capita GDDP lower than the State average. This District has seen a decrease in share of agriculture and allied sectors since 2011-12. The services sector has witnessed growth at a CAGR of 4% between 2011-12 and 2016-17, but its share in the J   &output remained the constant during the same period. The share of industry has gone up by seven percentage points between 2011-2012 and 2016-2017 indicating a growth in the sector. At sector level, Mining, Real Estate, Trade & Tourism and Construction are the major & & &   &   4

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

Sector	2013	2014	2015	2016	2017	CAGR
Agri & Allied	30%	49%	-9%	-9%	-8%	-5%
Industry	-7%	3%	-13%	47%	15%	7%
Services	4%	7%	7%	-2%	3%	4%

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

Share of GSVA (2017)

Mining, Construction, Real Estate and Trade and Tourism 66% of the district's output. Fishing accounts for 5% of the GVA

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7 Directorate of Economics and Statistics, Tamil Nadu

Agriculture and Allied Sector

Agriculture and allied sector is major means of livelihood for the people of this District. From 2011-12 to 2013-14, agriculture sector saw bumper crop production for paddy and sugarcane, a record in recent years[8]. It has seen a sharp decline at a CAGR of minus 5% between 2011-2012 and 2016-2017. **Due to poor rainfall and non-availability of water from Mettur reservoir, the area under paddy in Cauvery delta is coming down**. Among the three districts that are located in the Cauvery delta zone, Nagapattinam is the most affected by shortage of water. This is due to the fact that the

Figure 5 GVA of Agriculture and Allied Sectors (2016-2017)

| 39% | 33% | 23% | 5% |

■ Fishing ■ Agriculuture ■ Livestock ■ Forestry

water position in Mettur reservoir is frequently insufficient to allow enough outflow of water to reach the tail end of the delta. However, when there is heavy rainfall in the coastal areas due to cyclone/depression in the Bay of Bengal, many areas of Nagapattinam District gets flooded and water logging takes place. In both situations, agriculture is affected[9]. Major agricultural crops cultivated in the district are paddy, sugarcane, banana, cotton, vegetables, and other dry crops.

Fishing accounted for 39% of the total share in agriculture and allied sector GVA in 2016-17. This sector grew at a CAGR of five percent during 2011-12 to 2016-17. It ranks second in the State in terms of marine fish production at 77,315 tonnes in 2015-16. There are around 1,175 mechanised boats and around 4,125 FRP (Fibre reinforced plastic) boats in the district as at 2018.There are 824 registered Shrimp farms and Hatcheries spread in an area of about 1,542 hectares, highest in the State. The Government has accorded administrative sanction for Rs.17.80 crores towards dredging of fishing harbour basins at Nagapattinam, Pazhayar, fish landing centre basins at Thirumullaivasal, Nagoor and a bar mouth of Vettar river in Nagapattinam District. A Fishing Harbour at Poompuhar in Nagapattinam District is being constructed at a cost of Rs.148 crores under Centrally Sponsored Scheme. Construction of Fishing Harbour at Vellapallam in Nagapattinam at an estimated cost of Rs.100 crore. A fishing harbour at Tharangambadi in Nagapattinam District will be established at a cost of 120 crores. Government has accorded administrative sanction for the Construction of Landside facilities of Auction Hall and Net mending shed at Ariyanattutheru in Nagapattinam District at an outlay of Rs.1.62 crores under NADP (National Agriculture Development Programme).[10]

Industrial Sector

Mining and construction sectors accounted for more than 90 percent of the industrial sector output. The sector has grown at a CAGR of 7% between 2011-12 and 2016-17. Manufacturing accounted for 6 percent of the industrial output and is also one of the growing sub sectors in the district in 2016-17. Mining sector grew at a CAGR of 12 percent between 2011-12 and 2016-17. 4.85 million tonnes of silica sand is extracted from places like Vadamalai Manakadu, Vaduvancheri and Thanikottagam. Over 1.87 lakh metric tonnes of lime shell is extracted from Sirkali and Nagapattinam taluk.

Figure 6 Industrial Sector GSVA (2016-2017)

| 61% | 31% | 6% | 2% |

■ Mining ■ Construction ■ Manufacturing ■ Utilities

Due to the recent cyclone *Gaja* in 2018, extensive damages to the power infrastructure had affected rural industries in the District and had a cascading effect on livelihood opportunities in formal and informal sectors. The coir industry and fishing industry were badly hit by the cyclone.
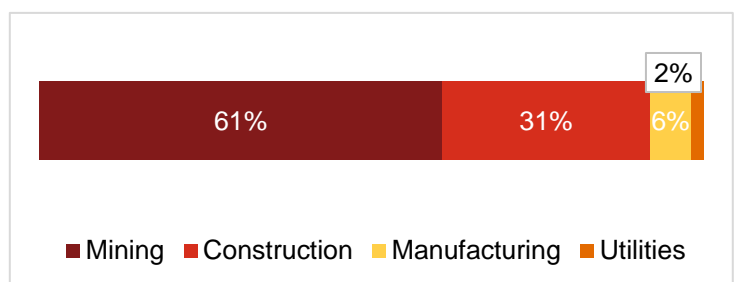
> ### Key Clusters and Traditional Industries

[8] https://aps.dac.gov.in/
[9] http://www.spc.tn.gov.in/DHDR/Nagapattinam.pdf
[10] http://cms.tn.gov.in/sites/default/files/documents/fisheries_e_pn_2018_19.pdf

Salt cluster in Vedaranyam	Fish Pickles and Dry fish processing in Tharangambadi	Coir manufacturing in Malliyam and Thiruvelvikudi
Cane furniture making in Sirkali	Wax candle making in Velankanni	Korai Mat weaving in Thaikkal

Table 3 Profile of Manufacturing Sector from ASI

Industry	No. of Units	No. of Employee	Gross Value Added (share in total GVA)	Share of Employment	Average workers per unit
Chemical products	10	143	16%	6%	14
Mining and quarrying	3	328	8%	13%	109
Installation of industrial machinery and equipment	12	221	6%	9%	18
Rubber products	4	88	2%	3%	22
Mill products	14	14	0%	1%	1
Other food products	5	1,503	0%	59%	301
Others	15	236	70%	9%	16
TOTAL	63	2,553	100%	100%	40

Source: Annual Survey of Industries 2014-15

According to the ASI 2014-15, 63 Industrial units were present in the District, directly employing 2,553 workers. Chemical products, mining, industrial machinery and equipment, food products were the key industries in terms of employment generation. Average workers per unit is maximum in food processing and mining industries.
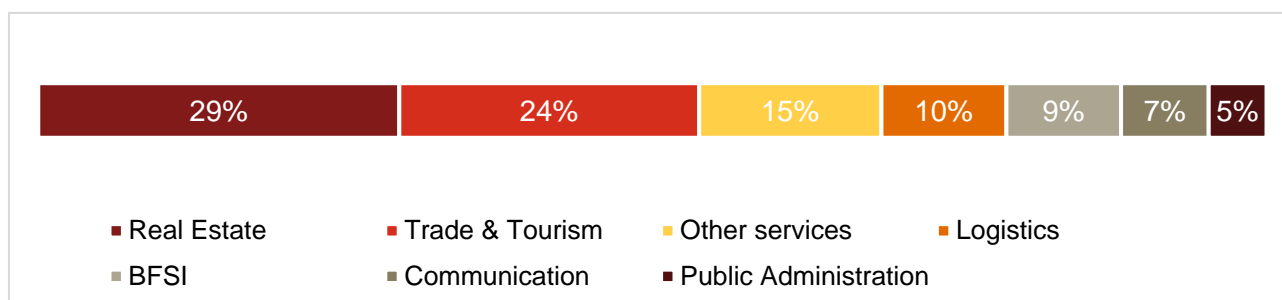
Services Sector

Existing Industrial Estate

- SIDCO Industrial Estate, Nagapattinam
- SIDCO Industrial Estate, Mayiladuthurai

Real Estate, Trade and Tourism contribute to half of the total service sector in the District. The sector experienced fluctuations in output and has grown at a CAGR of 4% during 2011-2012 to 2016-2017. The famous tourist spots are Nagoor, Velankanni, Point Calimere Bird Sanctuary and Tharangambadi. Like many other districts in Tamil Nadu, various temples attract tourists to this District. Velankanni is a major pilgrimage, the crown jewel of the District as well as the State. BFSI accounted for 9 percent of the service sector share in 2016-17. Logistics accounted for 10 percent share of the service sector in 2016-17.

Figure 7 GSVA of Services Sector (2016-2017)

29%	24%	15%	10%	9%	7%	5%

■ Real Estate   ■ Trade & Tourism   ■ Other services   ■ Logistics
■ BFSI   ■ Communication   ■ Public Administration

Traditional sector analysis

Mat weaving, Cane work industrial clusters are seen in Kollidam block. Salt Manufacturing clusters are seen in Sirkali and Vedaranyam blocks. Vedaranyam salt swamp runs along the coast from Point Calimere for about 48 Kms and is about 7 to 8 Km wide. This is the longest swamp of its kind in the State. It is filled by two periodical high tides during the full moon of months May and June and retains sea water to a depth of two feet over a considerable area enclosed by low earthen banks. This is closed to prevent the water from flowing back into the sea after the tide recedes, and it is in this manner that the well-known Vedaranyam spontaneous salt is produced. Candle manufacturing clusters are prevalent at Vellankanni town[11]. Particulars of the aforementioned products & & & furnished in the table given below:

Table 4 Traditional industries in Nagapattinam

SN	Industries	No. of Units	Production value (Rs. in.'000)	Manpower employed
1	Salt	1,400	112,500	17,000
2	Fish Pickles and Dry Fish Processing	100	4,000	2,000
3	Coir	100	7,500	3,000
4	Cane Furniture	500	20,000	5,000
5	Wax Candle	40	10,000	1,000

Source: DC-MSME Report Nagapattinam 2015-16

Fisheries Industries

Background: The district has a coastal length of 187.9 km. comprising of 49 fishing villages with a total fishermen population of 94,364.

- 49 active fishermen cooperative societies with 47,739 people are engaged in fishing related activities.
- There are around 1,175 mechanised boats and around 4,125 FRP (Fibre reinforced plastic) boats in the District.
- It ranks second in the State in terms of marine fish production at 77,315 tonnes in 2015-16.
- Fish Marketing Societies (FMS) and micro-enterprise development through SHGs will be promoted through a programme by International Fund for Agriculture Development (IFAD), banks and the government to address the livelihood needs of coastal communities. Nagapattinam will receive about Rs. 48 crores for its projects.
- Nearly 1,283 prawn farms are registered at Nagappattinam district and almost all of them depend on imported feed.
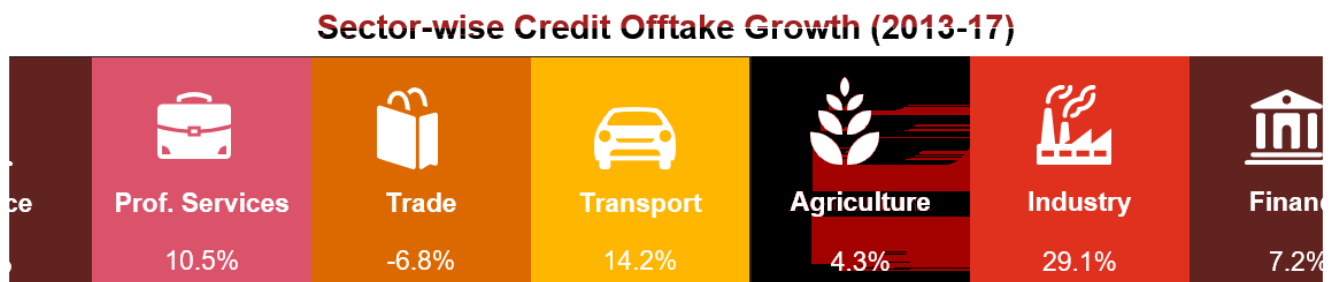
Future Scope and Recommendations:

- Trainings imparted in aquaculture could help in providing the fishing community opportunities for improved livelihoods. There is a huge demand for shrimps and crabs in food sub segment and high-quality produce can be exported.
- The opening of Bismi Feeds will reduce the costs of prawn farm owners while also providing employment in the district because feed for prawns were supplied by a single multinational company.[12]
- Huge demand for shrimps, crabs and other fish in the neighbouring districts and Puducherry.
- Marketing and sea food processing trainings can also be introduced in the District.

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[11] http://www.spc.tn.gov.in/DHDR/Nagapattinam.pdf
[12] https://www.nagapattinam.nic.in/departments-3___trashed/fisheries-department/

2.2.2. Investments and key economic drivers

Figure 8 Sector-specific growth of Credit off Take[13] (2013-17) - RBI

Sector-wise Credit Offtake Growth (2013-17)

Prof. Services	Trade	Transport	Agriculture	Industry	Finan
10.5%	-6.8%	14.2%	4.3%	29.1%	7.2%

According to the RBI data, the District has seen recent growth in credit across Financial, Industry, Transport and professional services sectors.

Other key investments across sectors include:

- Development of Port at Sirkazhi in Nagapattinam in which investment of 3,000 crores will be made[14]
- Indian Oil Corporation's (IOC's) group company Chennai Petroleum Corporation Ltd (CPCL) is proposing to set up a greenfield refinery at Nagapattinam, a cost of 27,460 crores. The products, including motor spirit (MS) and high-speed diesel (HSD), which will be produced from the refinery will help meet the latest BS-VI specification in the southern states.[15]
- The State government has announced that Sirkazhi and Tharangambadi will be developed as Petrochemicals Investment Region (PCPIR). PCPIR would be a specifically delineated investment region for producing petroleum, chemicals and petrochemicals along with associated services and infrastructure meant for domestic consumption and export. 1,146 crores has been allotted for this development by the Centre to improve rail and road connectivity.
- The Government has accorded administrative sanction for 17.80 crores towards dredging of fishing harbour basins at Nagapattinam, Pazhayar, fish landing centre basins at Thirumullaivasal, Nagoor and a bar mouth of Vettar river in Nagapattinam district. A Fishing Harbour at Poompuhar in Nagapattinam district is being constructed at a cost of 148 crores under Centrally Sponsored Scheme. Construction of Fishing Harbour at Vellapallam in Nagapattinam at an estimated cost of 100 crore. A fishing harbour at Tharangambadi in Nagapattinam district will be established at a cost of 120 crores.

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13 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.
14 Sagarmala investment plan
15 https://www.business-standard.com/article/companies/cpcl-plans-rs-27-460-cr-refinery-to-cater-to-south-india-s-bs-vi-vehicles-119012600340_1.html

2.3. Labour Market Profile[16]

The overall labour force participation and worker population ratio are slightly higher at the District level compared

Total	62.2%	49.3%	6.2%	13.0%

Analysing the labour market indicators by gender and across rural-urban areas, it is found that the Labour Force Participation Rate (LFPR) is higher among males in the rural areas. The rural male LFPR is 10.4% points higher than the urban male LFPR while the rural female LFPR is 17.3% points higher than the urban female LFPR. Further, a huge difference in female unemployment rate could be observed between rural and urban areas. The urban female unemployment rate is about 30% points higher than the rural female unemployment rate. Such a gap is not seen among the males, indicating that urban women face lack of employment opportunities and there is a scope for training woman in the District.
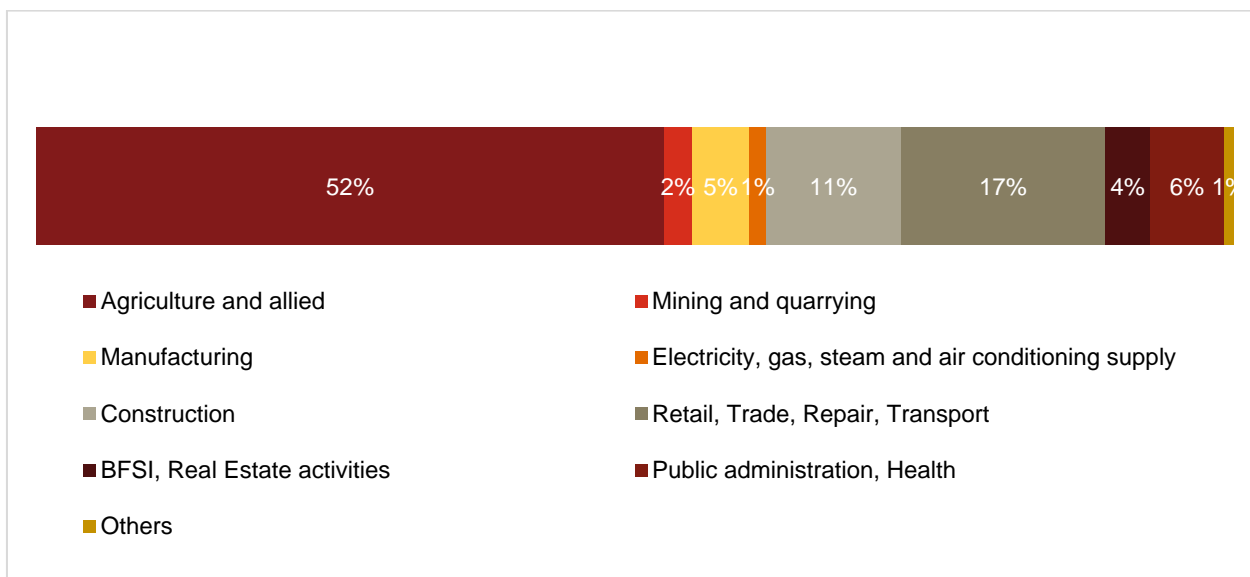

Figure 11 Sector-wise share of Employment

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

Five percent of the workforce in the District are employed in the manufacturing sector, two percent are employed in the mining sector and 11% in construction sector but the overall contribution from the Industrial sector is 47% of the GDDP. This reflects there is an issue of productivity in the industrial sector. Agriculture and allied sector is the most important sector in terms of employment followed by retail and construction.

2.4. *Education and Skill Development Profile*

2.4.1. *Education Profile*

The District is home to 1,730 elementary/middle schools, 213 high schools and 208 higher secondary schools. The Private sector dominates both the number of schools and the enrolments.

The Gross Enrolment Ratio[18] at both Primary and Upper Primary are higher than the State average. The ratio indicates that the number of students in the district outstrip the expected population in the age cohort by a significant margin. One of the reasons is the presence of several schools, catering to students from the neighbouring districts. The drop-out rates are marginal at 0.9% at the primary level but is quite high at 1.8% at the upper primary level.

Figure 12 GER and Drop-out Rates - DISE

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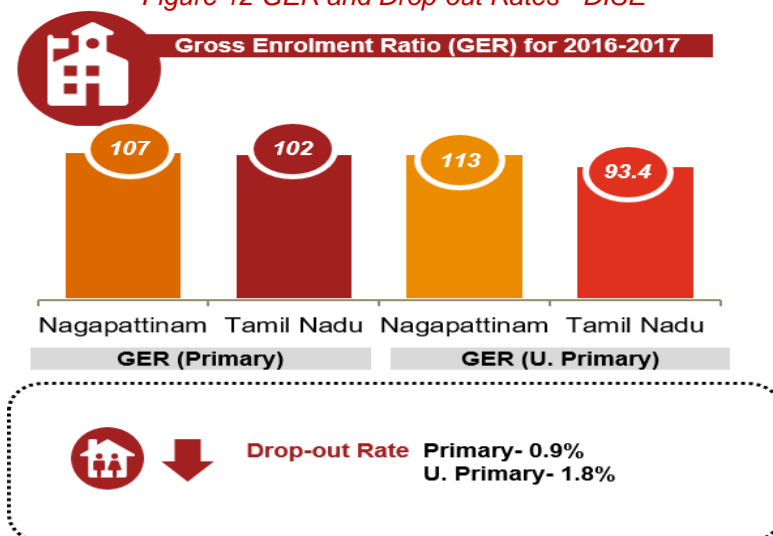
[18] Gross enrolment ratio (GER) is defined as Total enrolment in elementary education, regardless of age, expressed as a percentage of the official age-group of the population which corresponds to the elementary education in a given school year. The GER shows the general level of participation per stage of school education.

Table 6 Institutions of Higher Education in Nagapattinam District[19]

S.No	Institution Type	No of Institutions

Scheme	Sector	Job Role	No. of Training Centres	Intake
		Basic Automotive Servicing 4 wheeler		290
	Beauty And Wellness	Assistant Hair Stylist	2	290
		Bridal Make-up Artist		
	Capital Goods	Manual Metal Arc Welder	1	40
	Construction	Assistant Electrician	1	20
	Electrical	Electrician Domestic	6	80
		Electrical Winder		20
		Field Technician Refrigerator		40
		Field Technician AC		20
	Fabrication	Arc and Gas Welder	4	120
	Garment Making	Hand Embroider	3	60
		Industrial Sewing Machine Operator		160
		Tailor (Basic Sewing Operator)		110
		Traditional Embroidery		60
	Health Care	Home Health Aide	1	85
		General Duty Assistant		85
	Information And Communication Technology	Web Designing and Publishing Assistant	2	20
		Animation and Multimedia Assistant		20
		Accounts Assistant using Tally		40
		Computer Hardware Assistant		20
	IT/ITES	CRM Domestic Non Voice	2	220
		Web Developer		20
	Leather	Cutting and Tailoring	1	90
	Media & Entertainment	Accounts Executive	1	40
		Animation Director		20
	Medical And Nursing	Dialysis Assistant	2	20
		Basic of Anatomy & Physiology		40
		Laboratory Assistant		20
		Health Care Multipurpose Worker		20
		Dental Ceramic Assistant		40
		Dental Hygiene Assistant		20

Scheme	Sector	Job Role	No. of Training Centres	Intake
		Pharmacy Assistant		20
		Dental Mechanic		20
	Refrigeration & Air Conditioning	Repair and Maintenance of Refrigerator	6	120
		Repair and maintenance of Window and Split A.C		60
	Retail	Sales Associate		150
		Sales Person (Retail)		60

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. In addition, there are 27 ITIs offering 14 trades, with 7,051 seats, occupied by 4,591 trainees indicating a 65% utilization.
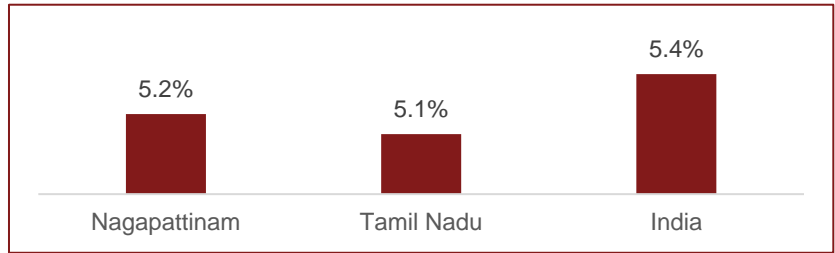
The below table presents the courses offered through ITIs, and the number of such institutes offering each trade/ training for job role.

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

Scheme	Sector	Job Role	No. of Training Centres	Intake
Industrial Training Institutes	Automobiles and Auto Components	Foundryman	1	43
(Craftsmen Training Scheme)	Capital Goods Construction Electronics & Hardware	Mechanic (Motor Vehicle)	12	349
		Welder	8	273
		Carpenter	1	52
		Electrician	11	560
		Wireman	3	114

Figure 13 Proportion Undergone Vocational training 2015-16, MoLE[21]

With respect to vocational training in the district, 5.2% of the working age population had received training in the District, as compared to 5.1% in the State, as per Employment and unemployment survey 2015-16. This is marginally higher than the State but marginally lower than the national average.
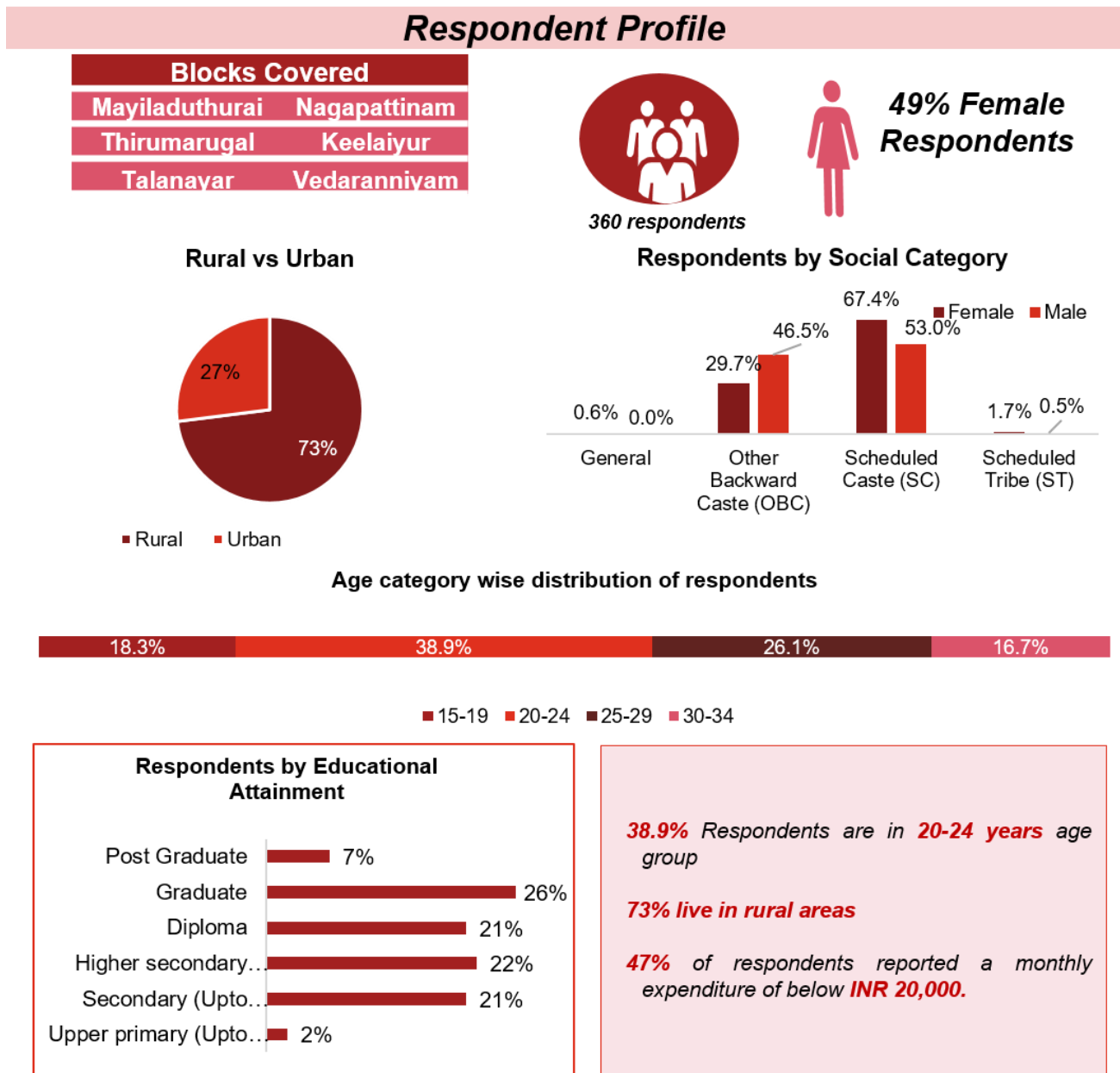

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3. Youth Perspective

The study covered youth in the age category 15-34 years to understand the demand and supply side perspectives of skill ecosystem in the district. The information was collected through quantitative surveys through a structured quantitative tool.

3.1. 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) sampled from six blocks **Mayiladuthurai, Nagapattinam, Thirumarugal, Keelaiyur, Talanayar and Vedaranniyam**[22]. Of the total respondents, **49%** were **female**. **Majority (almost three-fourth) of the respondents** were from the rural category.

Figure 14 Respondent Profile of Youth Aspiration Survey

Respondent Profile

Blocks Covered	
Mayiladuthurai	Nagapattinam
Thirumarugal	Keelaiyur
Talanayar	Vedaranniyam

360 respondents

49% Female Respondents

Rural vs Urban
- Rural: 73%
- Urban: 27%

Respondents by Social Category
- General: Female 0.6%, Male 0.0%
- Other Backward Caste (OBC): Female 29.7%, Male 46.5%
- Scheduled Caste (SC): Female 67.4%, Male 53.0%
- Scheduled Tribe (ST): Female 1.7%, Male 0.5%

Age category wise distribution of respondents
- 15-19: 18.3%
- 20-24: 38.9%
- 25-29: 26.1%
- 30-34: 16.7%

Respondents by Educational Attainment
- Post Graduate: 7%
- Graduate: 26%
- Diploma: 21%
- Higher secondary…: 22%
- Secondary (Upto…): 21%
- Upper primary (Upto…): 2%

38.9% Respondents are in *20-24 years* age group

73% live in rural areas

47% of respondents reported a monthly expenditure of below *INR 20,000.*

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[22] Detailed methodology of selection of blocks is described in Appendix 1 of the report.

3.1.1. Youth's Educational and Economic Engagement Status

The figure below illustrates the gender wise classification (current status) of the respondents interviwed during the household survey. While the female respondents were predominantly falling in the NEET (38.3%) category, the male respondents were largely distributed between self employed (35.7%), and wage employed (29.7%) categories.

*Figure 15 Current Status of Respondent by gender*
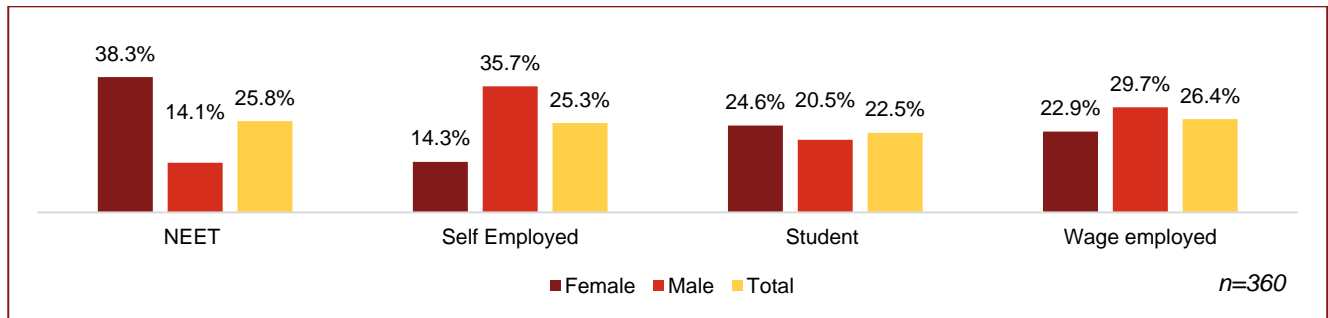
3.1.2. Economic Engagement of the Youth

48.3% of the total respondents are currently engaged in economic activities.

98.4% of the respondents who had ever engaged in an economic activity and currently working reported that they were employed in a field related to their education/ training.

Figure 16 Work Profile of Respondents

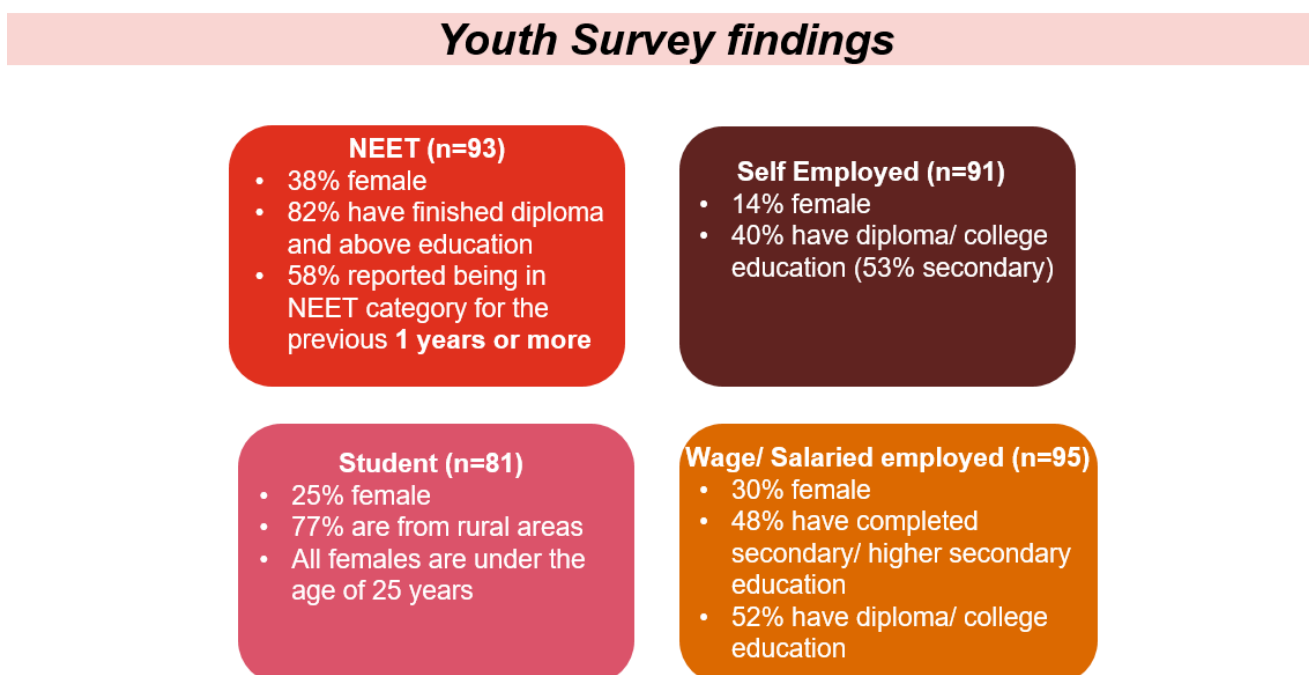*Figure 17 Distribution of Respondents across Monthly Income Category across gender*
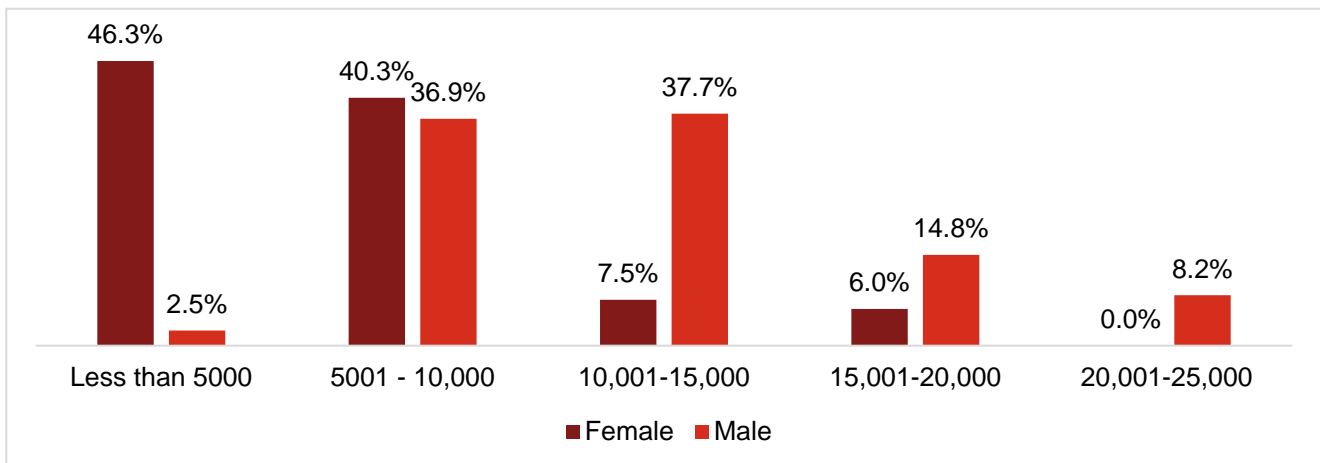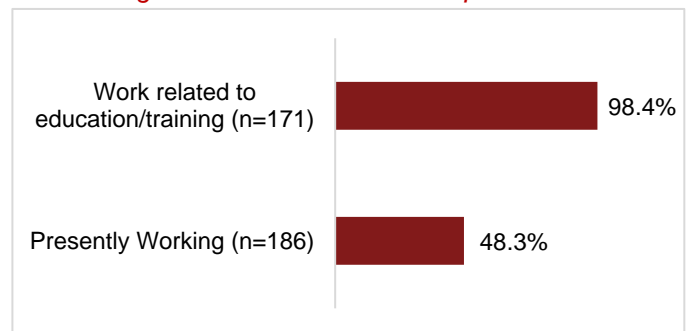
46.3% of the female respondents reported that they receive less than   5,000 monthly. 39.4% of the male respondents reported that their monthly income is less than   10,000. Lower wages have been a major reason for out migration amongst locals in the district. In addition, lower wages demotivates females to take up any form of economic activity.

Among those with education of higher secondary and below, skilled work like tailor, mason, and petty business were the most common form of economic activity. It is important to note that, 11% of the respondents who had completed their post-graduation, graduation or Diploma degrees had been engaged in unskilled work.

Table 9 Education Qualification of Respondents and Employment Type

	Upper Primary	Secondary	Higher secondary	Diploma	Graduate	Post Graduate
Farm Activities	0.0%	19.7%	18.8%	9.1%	8.8%	11.1%
Livestock	12.5%	4.9%	6.3%	0.0%	0.0%	0.0%
Unskilled worker (construction, MNREGA)	0.0%	21.3%	31.3%	20.5%	8.8%	0.0%
Salaried Employment (teacher, government official, etc.)	12.5%	8.2%	15.6%	27.3%	41.2%	55.6%
Skilled worker (tailor, mason)	37.5%	29.5%	15.6%	29.5%	26.5%	33.3%
Petty Business/Trade	37.5%	13.1%	12.5%	11.4%	20.6%	0.0%
Major Business/Trade/ Manufacturing	3.4%	1.6%	0.0%	2.3%	0.0%	0.0%
Number of respondents	9	61	32	44	34	9

Figure 18 Youth survey findings across categories

Youth Survey findings

NEET (n=93)
- 38% female
- 82% have finished diploma and above education
- 58% reported being in NEET category for the previous **1 years or more**

Self Employed (n=91)
- 14% female
- 40% have diploma/ college education (53% secondary)

Student (n=81)
- 25% female
- 77% are from rural areas
- All females are under the age of 25 years

Wage/ Salaried employed (n=95)
- 30% female
- 48% have completed secondary/ higher secondary education
- 52% have diploma/ college education

3.1.3. Youth under NEET Category

25.8% of the total respondents were neither in employment, nor in education nor in any training.

38% of the NEET category respondents were females. 82% of the NEET respondents reported to have completed their Diploma and above course. This shows that there is high level of educated unemployment in the district. .

While the most of the respondents in NEET category have been in it for more than 1 year (58%). **More than two-thirds of the female respondents in the NEET category have been in the category for more than a year.**

28.4% of the female NEET respondents and 56.8% of the male NEET respondents, wish to work in the future.

Table 10 NEET Category Respondents

| Duration in NEET Category (n=93)					Wish to Work (n=93)			
	Female	Male	Total			Female	Male	Total
Less than 6 months	11.9%	34.6%	34.6%		Yes	28.4%	56.8%	36.6%
6 months- 1 year	20.9%	30.8%	30.8%		Total	67	26	93
1- 2 years	32.8%	26.9%	26.9%		Actively Seeking Work (n=34)			
2- 3 years	13.4%	3.8%	3.8%			Female	Male	Total
3 - 4 years	7.5%	0.0%	0.0%		Yes	68.4%	80.0%	73.5%
4 - 5 years	10.4%	3.8%	3.8%		Yes	68.4%	80.0%	73.5%
More than 5 years	3.0%	0.0%	0.0%		Total	19	15	34

3.1.4. Vocational Training Awareness and Experience of Youth

0.3% of the total respondents have reported to have undergone some sort of vocational trainings. 60% of the respondents were aware about the government run vocational training programmes.

3.1.5. Youth Career Aspiration

The youth in the District have preference for self-employment (26%) and employment with the public sector (51%). Both female and male respondents have shown similar interests in the pursuit of wage employment, while males have a substantially higher interest in pursuit of self-employment and female respondents aspired for jobs with the public sector.

Figure 19 Career Aspiration of Youth
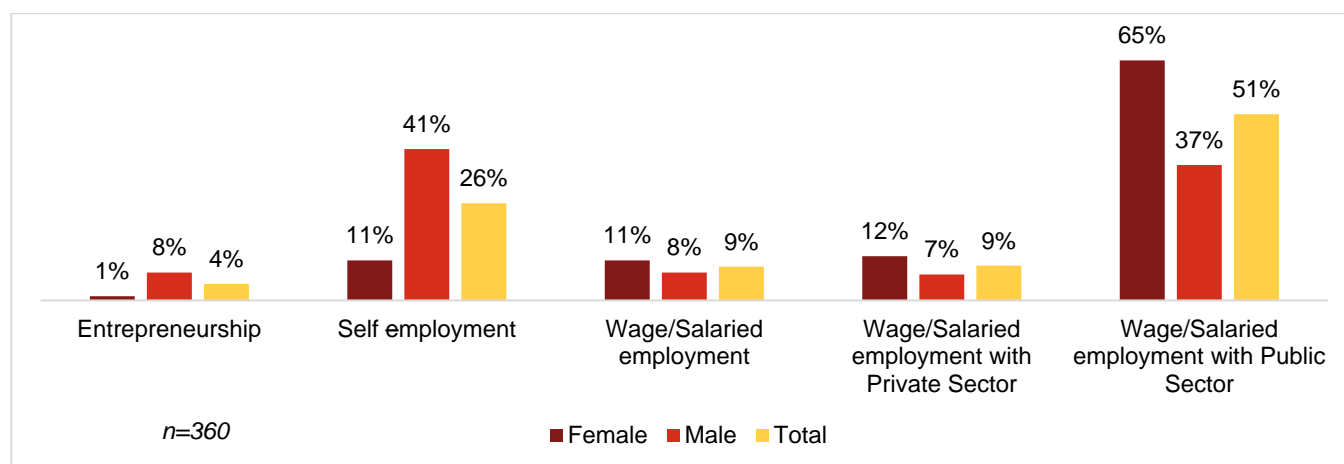
The main factors determining the aspiration of the youth are Salary (wages) / Income (77.5%), Job Security (50%) and Social Status (13.1%).

About 99% of the respondents (all excluding NEET and students) feel they are largely prepared for requirements for a job while only one fourth of the respondents feel they are unprepared for jobs. The main reason for these respondents feeling prepared is their certification of technical skills (36.4%) as well as the education level they have attained in the relevant field (52.8%).

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

Factors Determining Aspiration*	Responses	Perception of Preparedness for Jobs (n=169)	Responses
Salary (wages) / Income	77.5%	Completely Prepared	99.4%

Gender suitable role	0.6%	Moderately Prepared	0.3%
Social Status	13.1%	Somewhat prepared	0.3%
Traditionally Acquired Skills / Family Business	2.5%	Not Prepared	0%
Flexible work arrangements (location, schedule)	0.3%	**Availability of Job Opportunities (n=360)**	**Responses**
Job Security	50.0%	Very adequate	5.8%
Closeness to Residence	1.9%	Somewhat adequate	26.4%
		Neither adequate nor inadequate	33.6%
Emigration Prospects	0.3%	Inadequate	30.3%
Retirement Plans	14.2%	Do not know	3.9%

Multiple response question

Inadequate infrastructure to access workplace was the major challenge faced by youth in pursuing their career aspiration. Other factors include lack of work experience (23.1%). **16% of the youth highlighted the lack of technical and vocational skills as a challenge in pursuing their career aspiration.**

*Table 12 Career Aspiration – Challenges in pursuing desired career **

Challenges	Responses	Challenges	Responses
Lack of sufficient education qualification	19.2%	Lack of work experience	23.1%
Lack of family support / social acceptance of girls being engaged in economic activity	5.8%	Lack of guidance / information on appropriate job available for skill levels	15.8%
Lack of vocational skills	16.4%	Pressure related to getting married	1.9%
Lack of jobs locally	4.7%	No Challenge	6.7%
Inadequate infrastructure to access work-place	42.8%	Unsafe working environment	1.4%

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

The key factors determining their employability, according to the respondents, were level of education attainment (52.8%), years of work experience (10.6%) and certifications in technical skills (36.4%). Team work (72%), and leadership (35%) were identified as key skills specific to their aspired jobs. **While only 2% respondents had already taken steps to meet these requirements, 24% respondents were looking to continue education,** 5% were intending to take up a vocational / skill training program while 70% were looking for apprenticeships.

Table 13 Key Requirements to enhance employability and steps to achieve aspirations

| Key Requirements to enhance employability*			
Requirements	Responses	Requirements	Responses
Certifications of Technical Skill	36.4%	Education attainment (level of education)	52.8%
Relevant work experience in similar position or field	0.3%	Years of Work Experience	10.6%
Key Skills Required for desired job*			

Analytical thinking	3%	Active listening	7%
Team work	72%	Creativity, originality and initiative	2%
Clear communication	2%	Coordination Skills	11%
Leadership	35%	Time management	1%
New Steps to achieve aspirations*			
Steps	Responses	Steps	Responses
Vocational/ Skill Training	5.0%	Already Achieved	1.7%
Continuing Education	23.9%	Apprenticeship / Gathering Work Experience	70.0%

Multiple response question

Career aspiration and preference of sectors varied across the gender group. Education (23%), BFSI (20%) and Healthcare (13%) and agro-business (13%) were the most preferred sectors among the female respondents while the male respondents preferred sectors like Auto and auto components (21%) and Transport (16%). However, these were the least preferred sectors among the female respondents. The figure below details out the gender wise career aspiration for the youth.
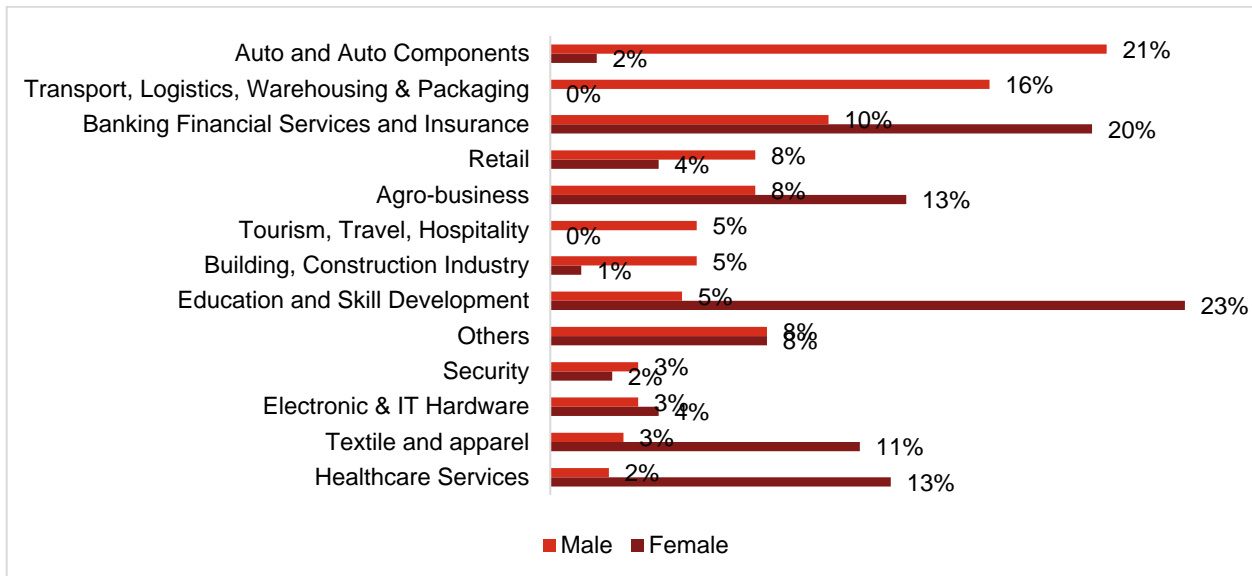
The median wage expectation   &   & 8; ,000 per month. Around 34% of the respondents have
            & &   &   &   &   & 86₹₹664Male respondents aspired for higher salaries compared to their female counterparts. Half of the respondents in the NEET category aspired for a monthly salary ranging between   20,000 and   30,000.

Compared to respondents in self-employment where 67% aspired for income between   25,000-   35,000, more than (42%) respondents in wage employment aspired for the same.

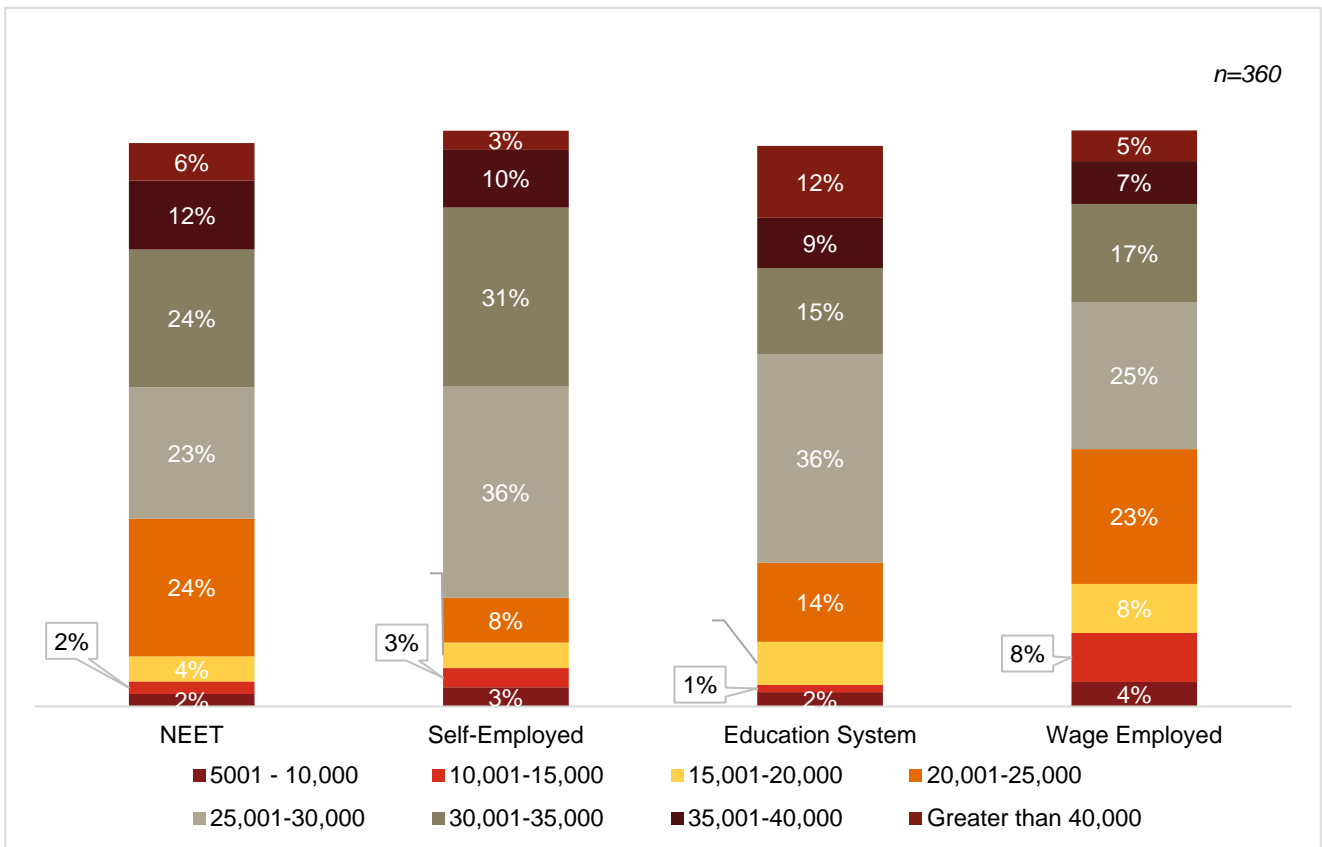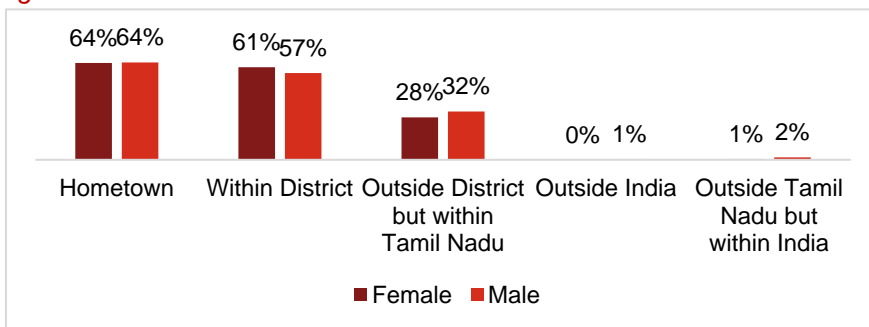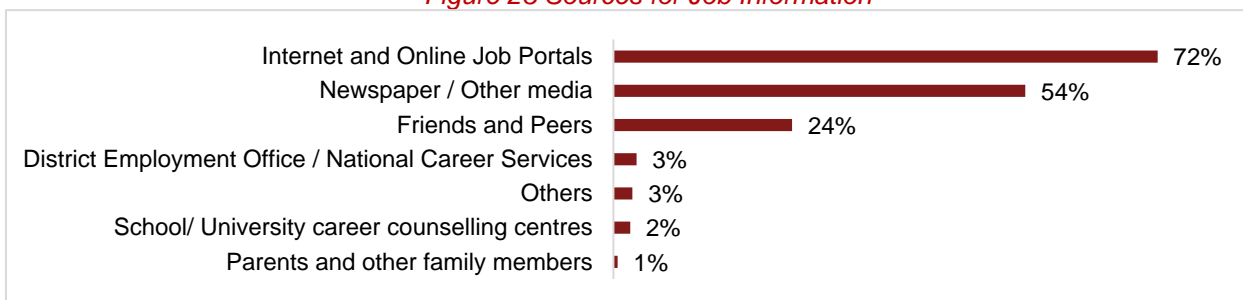*Figure 21 Aspired monthly salary of respondents by category*

n=360

Categories: NEET, Self-Employed, Education System, Wage Employed

Legend:
- 5001 - 10,000
- 10,001-15,000
- 15,001-20,000
- 20,001-25,000
- 25,001-30,000
- 30,001-35,000
- 35,001-40,000
- Greater than 40,000

NEET: 2%, 2%, 4%, 24%, 23%, 24%, 12%, 6%
Self-Employed: 3%, 3%, (3%), 8%, 36%, 31%, 10%, 3%
Education System: 2%, (1%), 14%, 36%, 15%, 9%, 12%
Wage Employed: 4%, 8%, 23%, 25%, 17%, 7%, 5% (8%)

*Figure 22 Preference for Work Location**

Location	Female	Male
Hometown	64%	64%
Within District	61%	57%
Outside District but within Tamil Nadu	28%	32%
Outside India	0%	1%
Outside Tamil Nadu but within India	1%	2%

Legend: Female, Male

64% of the total respondents preferred a job within their hometown. The respondents were reluctant to migrate outside of their hometown / district for the purpose of employment. Male respondents were ready to move outside their hometown; however, the female respondents preferred their work locations to be situated within their hometown.

Multiple response question

*Figure 23 Sources for Job Information**

- Internet and Online Job Portals — 72%
- Newspaper / Other media — 54%
- Friends and Peers — 24%
- District Employment Office / National Career Services — 3%
- Others — 3%
- School/ University career counselling centres — 2%
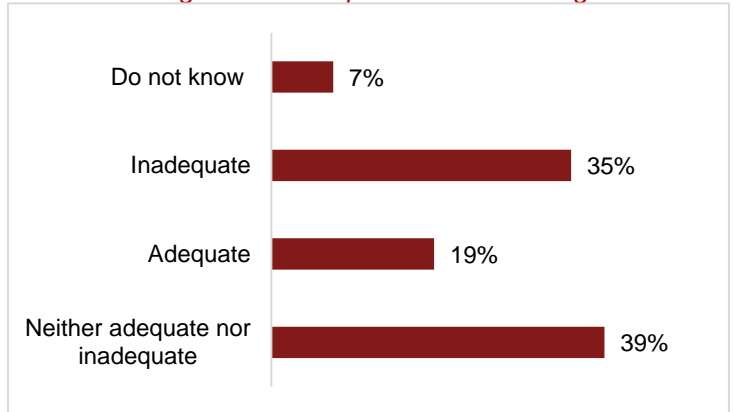- Parents and other family members — 1%

Multiple response question

The most important source for the job related information was Internet (72%), newspaper (54%) and friends and peers (24%).
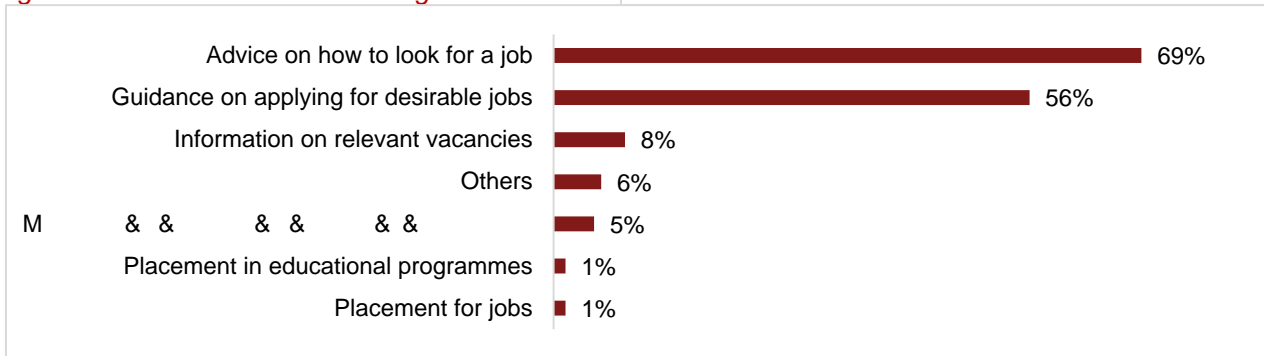
35% of the respondents felt that the counselling services were not adequate in meeting their requirements.

The key inputs requested by the respondents from career counselling services include Advice on seeking jobs (69%) and guidance on applying for a desirable job (56%).

Figure 24 Perception on Counselling Services

Category	%
Do not know	7%
Inadequate	35%
Adequate	19%
Neither adequate nor inadequate	39%

Figure 25 Preference on Counselling Services*

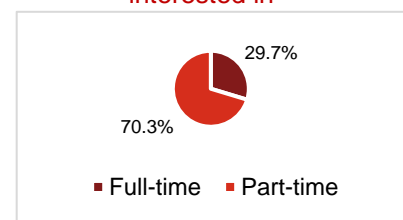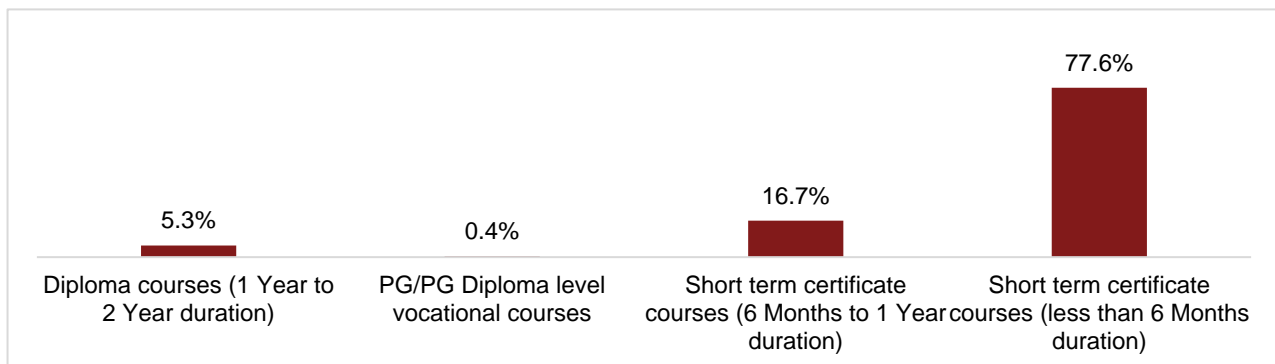|	
Advice on how to look for a job	69%
Guidance on applying for desirable jobs	56%
Information on relevant vacancies	8%
Others	6%
M & & & & & &	5%
Placement in educational programmes	1%
Placement for jobs	1%

Multiple response question

3.1.6. Skill Training Preferences of the Youth

31.7 % of the total respondents had any awareness of Government run vocational programs while around 0.3% had undergone any vocational training previously. 78% respondents wanted the trainings to be short term certificate courses and 30% wanted the courses to be part time in nature.

Figure 26 Skill Training type interested in

29.7%

70.3%

■ Full-time ■ Part-time

Figure 27 Skill Training type interested in

	%
Diploma courses (1 Year to 2 Year duration)	5.3%
PG/PG Diploma level vocational courses	0.4%
Short term certificate courses (6 Months to 1 Year duration)	16.7%
Short term certificate courses (less than 6 Months duration)	77.6%

Auto & auto components, transport and BFSI were the most popular and aspired sector amongst male respondents and healthcare and education amongst female respondents.

4. Employers' and Other Stakeholders' Perspective

The study covered employers, industrial associations and other key stakeholders to understand the demand side perspectives of skills. The information was collected through quantitative survey.

The survey covered 16 Industries from primarily seven sectors, with highest representations from the food processing and iron, steel and other metal sector jobs, which are highest contributors to the local economy. 31% of the industries were in operations for more than 10 years. 94% of the industries surveyed reported to be in the medium Industries category.

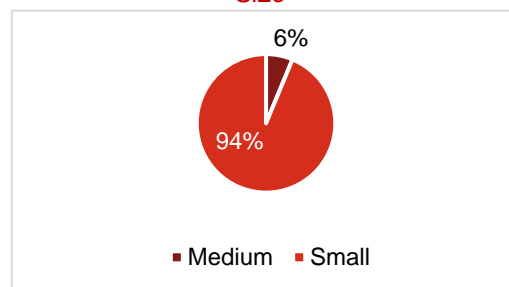*Figure 28 Distribution of Industries by Size*

Table 14 Sector wise coverage of Industries in Employer Survey

S.No	Sector	Number of Industries Surveyed	S.No	Sector	Number of Industries Surveyed
1.	Agro-business	1	2.	Warehousing and Packaging	1
3.	Auto and Auto Components	1	4.	Machinery Equipment	1
5.	Food Processing	7	6.	Plastics	1
7.	Iron, Steel and Other Metals	4	8.	Total	16

Almost all the employers (100%) recruited their workforce through employee reference, from either existing employees or known sources as a mode of recruitment.

Advertisement in media (25%) was the second most preferred mode of. There has been slower uptake of recruitments from Job Melas and Campus recruitment, social networks or web portals.

The most common challenge faced by the employer was candidate disinterest and attitude (100%), followed by high local wages (100%).

Table 15 Modes and Challenges in Recruitment Process*

Key Modes of Recruitment			Key Challenges faced in Recruitment		
S.No	Particulars	%	S.No	Particulars	%
1.	Employee Reference	100.0%	1.	Candidate Disinterest and Attitude	100%
2.	Advertisements in Media	25.0%	2.	High local wages	100%

Multiple response question

Figure 29 Average distribution of workers by Sex
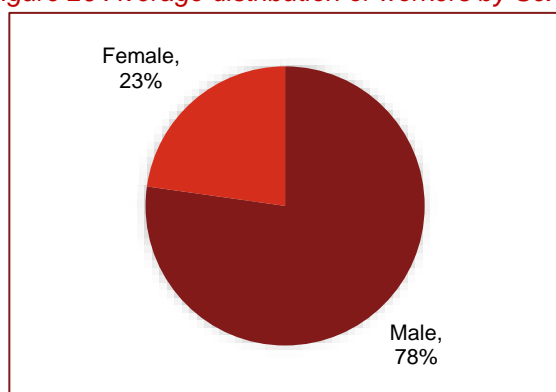
The surveyed industries were largely dominated by the male workers. Semi-Skilled workers dominated the share of workforce (48%) followed closely by unskilled workers (36%). Most of the females employees were employed in the unskilled workers category as daily wage labourers for doing manual work. 14 % of the employees were skilled in nature.
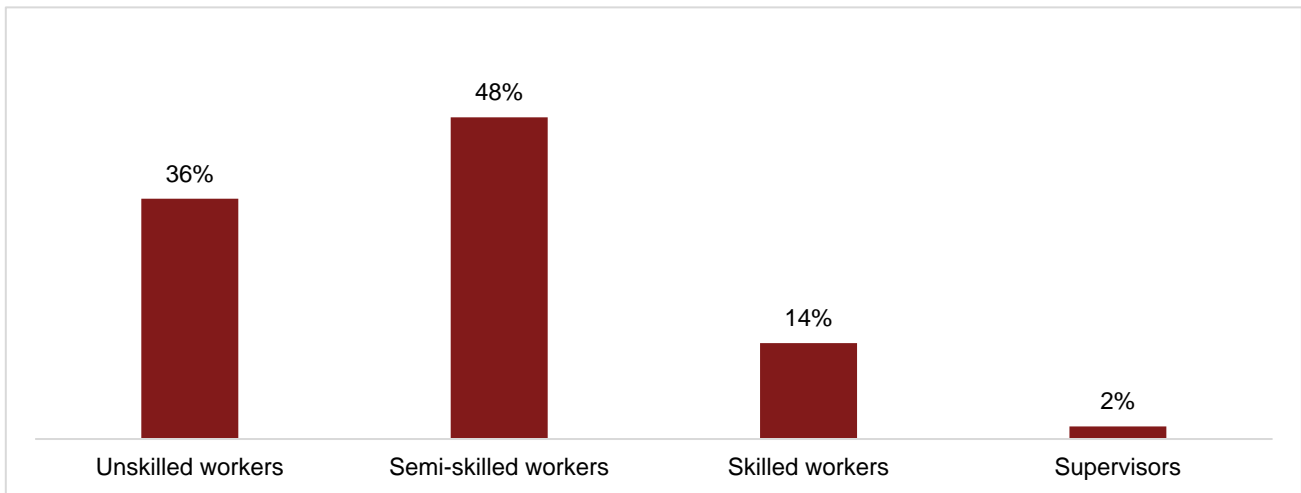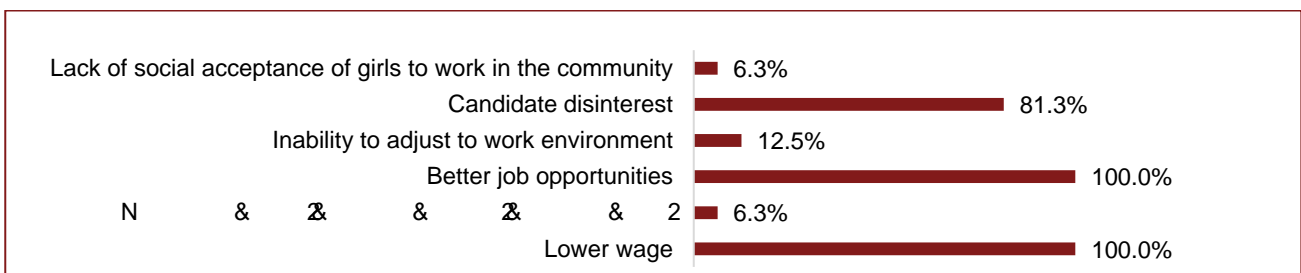
Figure 30 Distribution of workers-Skill Levels

Figure 30 Distribution of workers-Skill Levels

Figure 31 Key causes of Attrition*

Figure 31 Key causes of Attrition*

Multiple response question

Candidates disinterest (81.3%) and better job opportunities (100%) were the dominant cause of attrition. Lower wages (100%) was also the major cause of attrition in the enterprises. In addition, 43.8% of the employers feel there is a decent growth prospect in the industries.

Table 16 Growth Prospects and prospective adoption of technology

Growth Prospects of Industry	%
High	6.3%
Medium	37.5%
Low	50.0%
Not Sure	6.3%

5. Other Stakeholders' Perspective

The study also included in-depth interviews of more than 10 stakeholders including District Collector and other line departments involved in the Skill Development, Employment and Industrial development related activities, Industrial Associations, Vocational Education and Skill Development institutions among others. A focus group discussion was conducted with stakeholders from various organizations in sectors such as plastics, fabrication and food processing.

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

Table 17: Qualitative findings Nagapattinam

S No	Topic	Responses
1.	Awareness of government skill training programs/ jobs/ job melas	• Low level of awareness amongst the workers in the District; they do not know where to search for jobs. • Low level of awareness regarding job fairs that are being conducted locally. • Inadequate awareness of government skill training programs.
2.	Education-schools, ITI/ Polytechnics/ Engineering colleges in the district	• School curriculum needs to be revised. • High dropout rates in Government ITIs. After completion of the course, salary, which the students get in hand, is very low. The students in Government ITIs are from very poor financial background. These students have to assist their family for their livelihood as w

S No	Topic	Responses
		• Most workers are from Bihar, Jharkhand, Assam, Odisha and West Bengal. However, they leave after a year or two, and tend to go on holidays together
5.	Technological Transformation/ Automation	• Due to labour shortage, firms that can afford to automate their processes take the option. This is seen in the Karaikal Port which is nearby Nagoor. Earlier, this port used to employ around 1,000 people from the district but now due to upscaling of technology, it only employs around 300-400 people. • However, fishing related allied activities such as drying of fishes and making pickle has a low level of automation, and relies on a mostly female workforce to function
6.	Industry Engagement	• Inadequate Co-ordination between the skill institutes, ITIs and industries in the district. • Introduction of GST related courses. • Dedicated semester for full time apprenticeship training and industry knowledge. • Though Industries have expressed willingness to tie up with the Skill Development programs, they are severely constrained (especially small-scale industries) by some of the program guidelines and operational issues. • Small-scale industries should provide certification. • Local institutions do not reach out to local firms for apprenticeships/ on the job training.
7.	Industrial Scenario	• The district has SIDCO unit in Nagapattinam block which employs around 200 people. There is a new SIDCO cluster in Mayiladuthurai near Kulichar which was made in 2009. • Fabrication industries, PVC pipes, poly products, fibre board industries are present in SIDCO Nagapattinam. • CPCL (Chennai Petrochemical Corporation Limited) is going to develop their unit in Nagapattinam with investments around 27,000 crores. We can expect a boost in the growth of the ancillary chemical-based units in the near future. • The industrial sector is yet to fully recover from the external shocks of demonetization and GST. • There are many industrial units which make ice-blocks for fishing.
8.	Labour Requirements	• Job opportunities for the skilled category present. • Service sector related jobs are more in demand than manufacturing. • Outward migration is more in this district. • There is a growing trend amongst youth to either seek government jobs or be employed with the big brands.
9.	Women Employment	• Female employment is largely focussed in the allied fishing industries such as selling, drying, making pickles among others. • There is greater acceptance of females in the food processing units.

S No	Topic	Responses
10.	Skill Gaps	• Students lack Soft Skills especially communication skills, professionalism, flexibility and interpersonal skills.
		• In the services sector, the conversation skills in English were found wanting in the IT-ITES and the Tourism & Hospitality sector.
		• The graduates do not possess skills which are up to the required standards of the employers.

Specific Skill Requirements include:

- Skill training imparted to candidate should be in line with the market demand for skills. This means that the training given to the candidates should be reviewed every six months in consultation with the industry representatives.

- Receptionists, Tour Guides, Cab Drivers among others in the Tourism & Hospitality sector. There is a requirement to learn multiple languages especially, English and other Indian regional languages. As Velankanni is a pilgrimage, it witnesses regular influx of devotees and tourists.

- GST Accountants are needed across sectors owing to the recent tax reforms.

- In general, the government has to ensure the awareness about the schemes on skill development should reach the last mile.

- Internship programs should be spread throughout the course duration and not limited only with last semester.

6. Skill Gap Analysis

6.1. Skill Gap Assessment - Incremental Demand[23] for Skilled & Semi Skilled Workforce

Nagapattinam is witnessing increased urbanization and increase in both industrial and service sectors. As per the methodology for estimating demand and supply, it can be seen that **Fishing, Construction, Repair, Tourism and Hospitality, BFSI, Real Estate, Food Processing, Retail, Healthcare** show high levels of demand for both skilled and semi-skilled workers. The detailed methodology is described under Appendix 7.2. The table below illustrates the sector wise demand and skill gap for skilled and semi-skilled workers for time period 2019-21 and 2022-25.

Table 18 Sector wise Incremental Demand for Skilled and Semi Semi-Skilled Workers between 2019 and 2025

Sectors	Demand for Skilled Workers			Demand for Semi Skilled Workers			Incremental Total Demand
	2019-21	2022-25	Total	2019-21	2022-25	Total	Total
Allied Activities	122	171	294	856	1,200	2,056	2,350
Mining and quarrying	124	191	315	206	319	525	840
Manufacturing	672	977	1,649	1,345	1,954	3,299	4,948
Construction	709	1,124	1,833	1,772	2,809	4,581	6,414
Retail Services	220	307	527	763	1,061	1,824	2,352
Hotels and restaurants	277	403	680	537	781	1,318	1,999
Transportation and storage	34	46	79	81	109	191	270
Communication and services related to broadcasting	381	588	969	190	294	485	1,454
BFSI	727	1,176	1,903	363	588	951	2,854
Real estate, ownership of dwelling and business services	132	201	333	329	503	833	1,166
Healthcare	956	1,383	2,339	765	1,107	1,871	4,210
Arts, entertainment and recreation	310	448	758	248	359	606	1,365
Repair	1,039	1,503	2,542	831	1,203	2,033	4,575
Other Services	492	712	1,204	394	570	963	2,167
Total Demand	6,194	9,231	15,425	8,681	12,856	21,537	36,962
Total Supply	3,396	4,528	7,923	7,310	9,747	17,058	24,981
Total Skill Gap	2,799	4,704	7,502	1,370	3,109	4,479	11,982

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[23] 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.

7. District Skilling Action Plan

7.1. 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 three years with a focus on youth. The below table presents the summary of training projects for Nagapattinam.

Table 19 Summary of Trainings

S No	Sector	Trades	Target (Persons)	Budget (₹)
1.	Agriculture	• Fish Seed Grower • Fishing boat mechanic • Fishnet making	1,000	1.21 Crores
2.	Food Processing	• Aquaculture technician • Fish and Sea Food Processing Technician • Brackish water aquaculture farmer • Shrimp farmer • Freshwater aquaculture farmer • Processed Food Entrepreneur • Mariculture operator • Quality assurance Manager	3,000	2.59 Crores
3.	Capital goods	• Fitter Fabrication • Fitter Mechanical Assembly • Assistant Manual Metal Arc Welder • Assistant Oxy fuel gas cutter • CNC Setter cum operator Turning • Draughtsman Mechanical • Fitter Electrical and Electronic Assembly • Forger	500	1.37 Crores
4.	Construction	• Draughtsman • Supervisor - Roads & Runways • Quality Technician • Fabricator • Construction Welder • Construction Electrician	3,500	7.95 Crores
5.	Repair	• Helper Electrician • Plumber (General) • Field Technician AC • Field Technician Refrigerator • Field Technician - Washing Machine • Field Technician - Other Home Appliances	2,000	3.6 Crores
6.	Tourism and Hospitality	• Food & Beverage Steward • Housekeeping Attendant • Chef • Billing Executive • Facility Supervisor • Tour escort and Driver • Assistant Catering Manager • Front Office Associate • Guest Relations Manager	1,000	9.55 Crores
7.	BFSI	• Marketing and Social Media manager • GST Accounts Assistant • Mutual Fund Agent • Life Insurance Agent	1,100	1.02 Crores

8.	Retail	• Cashier • Retail Sales Associate • Store Ops Assistant • Seller Activation Executive • Digital Cataloguer • Retail Trainee Associate	1,000	1.32 Crores
9.	Healthcare	• General Duty Assistant • Blood Bank Technician • Cardiac Care Technician • Diabetes Educator • Emergency Medical Technician - Basic • Medical Records & health Information Technician	1,000	3.14 Crores
Total			14,100	**₹ 31.75 Crore**

Note:

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

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

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

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

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

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

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

Where:

Number of days of training = training hours / 8

Transportation costs per trainee per day = INR 100

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

The training projects are described below:

Table 20 Fish Sector Training

Name of the Project: Pisciculture Training							
Key Economic Drivers: Recent growth in the fisheries requires skilling intervention.							
Second highest district to contribute to fish production To boost the production latest fishing technology and machineries should be introduced							
Key Partners: Department of Fisheries, TNFU							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training**	**Cost Category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Fishnet making	4	AGR/Q4908*	200 hours	2	Class 8th pass	500	0.49 Crores
Fish Seed Grower	4	AGR/Q4908	210 hours	1	Class 10th pass	250	0.3 Crores
Fishing boat mechanic	4	AGR/Q5103	240 hours	1	Class 8th pass	250	0.33 Crores
	Total training cost					**1,000**	**₹ ~1.1 crore**
	Total Assessment and Certification cost (1,000 per candidate)						**₹ 0.1 crores**
	Total cost						**₹ ~1.21 crores**
Key Considerations: The youth can be encouraged to take up advanced agricultural methods to increase production. Upskilling trainings can be given to existing farmers.							

*-Job roles do not have training hours/NSQF code mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours.

Table 21 Sea Food Processing

Name of the Project: Training for Agriculture and Sea Food Processing sector							
Key Economic Drivers:							
Allied activities (fisheries is a major component of this sector) has high incremental skill demand. Tracts of land parcels that are available and could be used aqua-culture and Mari-culture Huge demand for shrimps, crabs and other fish in the neighbouring districts and Puducherry							
Key Partners: Department of Fisheries , Brackish Water Fish Farmers Development Agency (BFDA), Agriculture Sector Skill Council, Coastal Aquaculture Authority							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training**	**Cost Category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Aquaculture technician	AGR/Q4903	5	200 hours	1	Class 8th pass	300	0.33 Crores
Fish and Sea Food Processing Technician	FIC/Q4001	4	240 hours	1	Class 5th class	200	0.27 Crores
Brackish water aquaculture farmer	AGR/Q4906	4	210 hours	1	Class 8th pass	200	0.24 Crores
Shrimp farmer	AGR/Q4902	4	200* hours	1	No formal education	400	0.44 Crores
Freshwater aquaculture farmer	AGR/Q4905	4	200 hours	1	Class 8th pass	200	0.22 Crores
Processed Food Entrepreneur	FIC/Q9001	5	240 hours	3	Class 10th class	200	0.21 Crores
Mariculture operator	AGR/Q4909	4	240 hours	1	Class 8th pass	300	0.4 Crores
Quality assurance Manager	FIC/Q7602	6	240* hours	3	S & & science	200	0.21 Crores
Total training cost						**3,000**	2.29 Crores
Total Assessment and Certification cost (₹ 1,000 per candidate)							0.3 Crores
Total cost							2.59 Crores
Key Considerations:							
Trainings imparted in aquaculture could help in providing the fishing community opportunities for improved livelihoods. There is a huge demand for shrimps and crabs in food sub segment and high quality produce could be exported.							

-Job roles do not have training hours/NSQF code mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours.

Table 22 Fabrication Sector

Name of the Project: Training in Capital goods Sector							
Key Economic Drivers:							
Fabrication is a key sector it provides employment in both PSUs and private organizations Existing training institutions have the capacity to meet skilling needs							
Key Partners: ITI, SIDCO Nagapattinam, Polytechnics, BHEL, and other private players							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training (hours)**	**Cost Category**	**Target Group**	**Training Target**	**Cost of Training**
Fitter Fabrication	3	CSC/Q0303	500	1	10th pass	100	0.28 Crores
Fitter Mechanical Assembly	3	CSC/Q0304	500	1	10th pass	100	0.28 Crores
Assistant Manual Metal Arc Welder	3	CSC/Q0204	500	1	10th pass	100	0.28 Crores
Assistant Oxy fuel gas cutter	3	CSC/Q0203	300	1	8th pass	100	0.17 Crores
CNC Setter cum operator Turning	4	CSC/Q0120	600	1	10th pass	100	0.33 Crores
Total training cost						500	**₹1.32 Crore**
Total Assessment and Certification cost (₹ 1,000 per candidate)							**₹0.05 Crore**
Total cost							**₹1.37 Crore**
Key Considerations:							
Adequate facilities must be provided if women are being trained bathrooms, changing rooms Industry partners must be made part of the process Training providers must be vetted based on instructor quality and infrastructure							

Table 23 Construction Sector

Name of the Project: Training for Construction sector							
Key Economic Drivers:							
Construction is one of the identified sectors with high skill demand in the next five years The most preferred sector for undergoing training/ pursuing career during youth aspiration survey amongst male respondents							
Key Partners: ITI, Polytechnics							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training**	**Cost Category**	**Target Group**	**Training Target (People)**	**Cost of Training**
Draughtsman	4	CON/Q1301	600 hours	1	ITI/ Diploma in Civil	500	1.65 Crores
Supervisor - Roads & Runways	6	CON/Q1004	550 hours	1	Graduate/ ITI	300	0.91 Crores
Fabricator	4	CON/Q1206	600 hours	1	Class 12th pass	500	1.65 Crores
Construction Welder	4						

Table 24 Repair Sector

Name of the Project: Training Repair and services							
Key Economic Drivers:							
Repair and service of domestic appliances and personal goods has an incremental demand of around in the district in the coming years.							
Key Partners: ITI							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training**	**Cost category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Helper Electrician	2	CON/Q0601	350 hours	1	10th pass	300	0.58 Crores
Plumber (General)	3	PSC/Q0104	410 hours	1	5th pass	300	0.68 Crores
Field Technician AC	4	ELE/Q3102	300 hours	2	8th pass	500	0.74 Crores
Field Technician Refrigerator	4	ELE/Q3103	300 hours	2	8th pass/10th pass	300	0.45 Crores
Field Technician - Washing Machine	4	ELE/Q3106	300 hours	2	8th pass/10th pass	300	0.45 Crores
Field Technician - Other Home Appliances	4	ELE/Q3104	360 hours	2	8th pass	300	0.53 Crores
	Total training cost					**2000**	3.40 crores
	Total Assessment and Certification cost (1,000 per candidate)						0.2 crores
	Total cost						3.6 Crores
Key Considerations:							
Youth can be trained to provide services for repair of domestic appliances. ITI and Diploma graduates can also be given in this sector.							

Table 25 Tourism Sector

Name of the Project: Training for Tourism Sector

Key Economic Drivers:

    Tourism is a prominent sub sector.

Key Partners: ITI, Tourism and Hospitality Skill Council, Tourism Department

Job Roles:	NSQF Level	NSQF Code	Duration of Training	Cost category	Target Group	Training Target (People)	Cost of Training (₹)
Food & Beverage Steward	4	THC/Q0301	300 hours	2	Class 10th pass	200	1.77 Crores
Housekeeping Attendant	2	THC/Q Q020	240 hours	2	Class 8th pass	100	0.71 Crores
Chef	6	THC/Q0404	285 hours	1	Class 8th pass	100	0.76 Crores
Billing Executive	4	THC/Q5801	390 hours	2	Graduate	100	0.77 Crores
Facility Supervisor	5	THC/Q5709	370 hours	2	ITI	100	1.09 Crores
Tour escort and Driver	4	THC/Q4202	240 hours	3	Driving license & Class 8th pass	100	0.21 Crores
Assistant Catering Manager	6	THC/Q5901	475 hours	2	Class 12th pass	100	1.4 Crores
Front Office Associate	4	THC/Q0102	280 hours	3	Class 12th pass	100	0.72 Crores
Guest Relations Manager	6	THC/Q0108	350 hours	2	Class 12th pass	100	2.06 Crores
	Total training cost					**1,000**	~9.44 Crores
	Total Assessment and Certification cost (1,000 per candidate)						0.1 crores
	Total cost						9.55 Crores

Key Considerations:

    Tourism is the most prominent sub sector, and youth can be employed in this sector easily

    Woman can be employed in the sector

Table 26 BFSI Sector

Name of the Project: Training in Banking, Digital marketing and finance							
Key Economic Drivers:							
The large number of MSME units and have potential for better marketing and financial management of their enterprises High credit offtake in BFSI sector Marketing of traditional handicrafts is important to boost its growth These skill training programs would also benefit the traditional sector artisans in the district							
Key Partners: **BFSI SSC**							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training***	**Cost category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Marketing and Social Media manager	4	ASC/Q1110	200 hours*	2	Diploma/ Graduation	350	0.35 Crores
GST Accounts Assistant	4	BSC/Q0910	100 hours	3	Diploma/ Graduation in commerce	250	0.11 Crores
Mutual Fund Agent	4	BSC/Q3802	200 hours*	3	Class 12th pass	250	0.22 Crores
Life Insurance Agent	4	BSC/Q0101	225 hours	3	Class 10th pass	250	0.25 Crores
	Total training cost					**1100**	**₹ 0.91 Crores**
	Total Assessment and Certification cost (1,000 per candidate)						**₹ 0.11 crores**
	Total cost						**₹ ~1.02crores**
Key Considerations: With the growth in BFSI sector and introduction of GSTs, there is a need to skilled workforce to work in the sector. Youth, especially woman can be trained and provided meaningful employment in this sector.							

*-Job roles do not have training hours/NSQF code mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours.

Table 27 Retail Sector

Name of the Project: Training in Retail Sector							
Key Economic Drivers:							
Urbanizing population will spur the growth of large retailers							
Key Partners: Retailer's Association							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training (hours)**	**Cost category**	**Target Group**	**Training Target**	**Cost of Training ( )**
Cashier	2	RAS/Q0102	200	2	Graduation only	100	0.1 Crores
Retail Sales Associate	4	RAS/Q0104	280	2	10th pass	100	0.14 Crores
Store Ops Assistant	1	RAS/Q0101	200	2	10th pass	300	0.3 Crores
Seller Activation Executive	4	RAS/Q0301	280	2	10th pass	200	0.28 Crores
Digital Cataloguer	4	RAS/Q0302	280	2	12th pass	200	0.28 Crores
Retail Trainee Associate	3	RAS/Q0103	280	2	10th pass	100	0.14 Crores
	Total training cost					**1,000**	**₹ 1.21 crores**
	Total Assessment and Certification cost (1,000 per candidate)						**₹ 0.1 crores**
	Total cost						**₹ ~1.32 crores**
Key Considerations:							
Women can be targeted but adequate facilities must be provided On the job training can be provided by local retailers							

Table 28 Healthcare Sector

Name of the Project: Training in Healthcare Sector							
Key Economic Drivers:							
Nagapattinam is growing and urbanizing, and hence would require an expanded healthcare system Healthcare sector has scope for young men and women, and career mobility as well							
Key Partners: Hospitals, Nursing Colleges.							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training (hours)**	**Cost category**	**Target Group**	**Training Target**	**Cost of Training**
General Duty Assistant	4	HSS/ Q5101	240	2	8th pass/10th pass	200	0.24 Crores
Blood Bank Technician	4	HSS/ Q2801	1,000	1	12th pass	200	1.1 Crores
Cardiac Care Technician	4	HSS/ Q0101	840	1	12th pass	200	0.93 Crores
Diabetes Educator	4	HSS/ Q8701	240	2	12th pass	200	0.24 Crores
Emergency Medical Technician - Basic	4	HSS/ Q2301	240	1	12th pass	100	0.14 Crores
Medical Records & health Information Technician	4	HSS/ Q5501	600	1	12th pass	100	0.33 Crores
Total training cost						1,000	2.95 Crore
Z &G & & & & &7 2000 per candidate)							0.1 Crore
Total cost							**₹3.05 Crore**
Key Considerations:							
Residential training and part-time training modes should be explored to allow women of all backgrounds to attend							

7.2. Key Recommendations

Study findings reveal that there is an emerging demand for skilled workforce in the district with several investments lined up within the district. However, access to skills, livelihoods and gainful employment vary across the district. Technical skills and lack of soft skills has emerged as key impediments in the economic engagement of youth. However, it also emerges that there are opportunities for the youth, especially in sectors like manufacturing, food processing, tourism and trade among others. Recommendation on key interventions that could be considered to foster the participation of youth in the economy are as follows:

Industry engagements:
The upcoming CPCL plant can conduct workshops for students in Nagapattinam to train them on a frequent basis. Training centres and institutions need to tie-up with SIDCOs and local industries, understand the requirement in the sectors, and accordingly develop the curriculum. In addition, industry visits and hands-on training (through structured internships) will provide better exposure to the students. There is an urgent requirement to narrow the existing gap between skilling institutes and industries in the district. This is possible through industry connects sessions. Workshops can be organized every fortnight between the training service providers operating in Nagapattinam at the District Employment office and the employers to provide them a platform to interact with each other and identify trades according to demand in the sectors and the training feasibility. These workshops should be conducted every fortnight (sector wise). Small-scale organizations should also be motivated to participate in such events.

Training of trainers:
The Training Service Providers should have adequate qualified trainers and upskilling trainings should be given to the trainers about the current industry and technology. There is a need to active professional development intervention for the trainers and a certifying or licensing mechanism should be introduced to ensure that they are adequately updated on the market expertise on a regular basis.

Alignment of courses:
Courses based on Industry demand should be introduced in the training centres. Eg: SIDCO Nagapattinam houses number of fabrication, PVC, Fibre-board industries, however, very few students are hired from the Government ITI which is within a kilometre radius. Relevant courses to match the industry demand needs to be identified and accordingly courses needs to be designed. Courses also need to be upgraded and refined as per latest technological advancements. This is required in the Government ITI Ettukudi as it is lacking the required number of trainers. Upgradation of courses should be done in consultation with the local and regional employers.

Creating Awareness and conducting counselling sessions:

As per youth aspiration survey, only one-third of the youth are aware about government run programs and courses. The youth reply on their family and friends for getting information on upcoming job opportunities in the district. Youth are not aware of the industrial estates and the type of sectors employing workforce in the district. We need to introduce more meaningful awareness drives to bridge this gap.
Community engagement through college student volunteers can play an instrumental role in building awareness among both rural and urban clusters of the district. These college student volunteers can organize awareness camps advocating on various important government schemes and programmes as well as social issues.
Career Counselling and awareness campaigns are required across the district and especially in educational institutions. Students of Schools, colleges, polytechnics and training institutions should be exposed to the requirement for skills, economic prospects and career options for progression in a systematic manner through the Dept. of Labour Employment and Training.

Focus on fisheries and tourism:

There is a need to identify and specificy job roles pertaining to the fisheries sector. There is a scope in processing and packaging. Better access to markets in cities across the country requires proper marketing and storage which Nagapattinam lacks. It has emerged as a profitable business in recent time. Sustainable fishing practice should be encouraged. The current practice of shore fishing destroys the sea bed. More emphasis should be given to deep sea fishing. This ensures a steady volume of catch.

Velankanni Church is a pilgrimage which witnesses tourists from different parts of the country. There is a growing demand for tourists guides, hotels and restaurants among others. Nearby Danish Fort in Tharangambadi, Bird Sanctuary in Point Calimere is also visited by tourists who visit Velankanni and has seen a growth in the footfall of tourists in recent times. There is requirement felt for soft skills and life skills trainings among the youth. These trainings should be given weekly once alongside the skill trainings as part of the curriculum. There is also

requirement for tapping adoloscents in education institutions through career counselling to arrest drop outs or guide them towards vocational education. The larger participation of community would encourage better engagement of females in economic activity.

Strengthening the local Skilling Eco-system:

As per our demand-supply estimation, there is total requirement of 36 thousand workforce in the next five years with an existing gap of 11 thousand workers including both skilled and semi-skilled. Strengthening the skilling eco-system will bridge this gap. In order to bridge the gap between vocational training programs and industry, apprenticeship scheme must be popularized further. The training institutes should tie-up with local firms too. This will not only increase the pool of employers during placements but also, help the small-scale industries to train and employ required workforce. Youth shall get the benefit of choosing a more suitable job for himself through this.

Appendix -1

A.1 Methodology for Block Selection in Youth Aspiration Survey

Sampling Design for Youth Survey

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

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

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

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

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

Figure 32: Blocks Selected for Survey in Nagapattinam

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

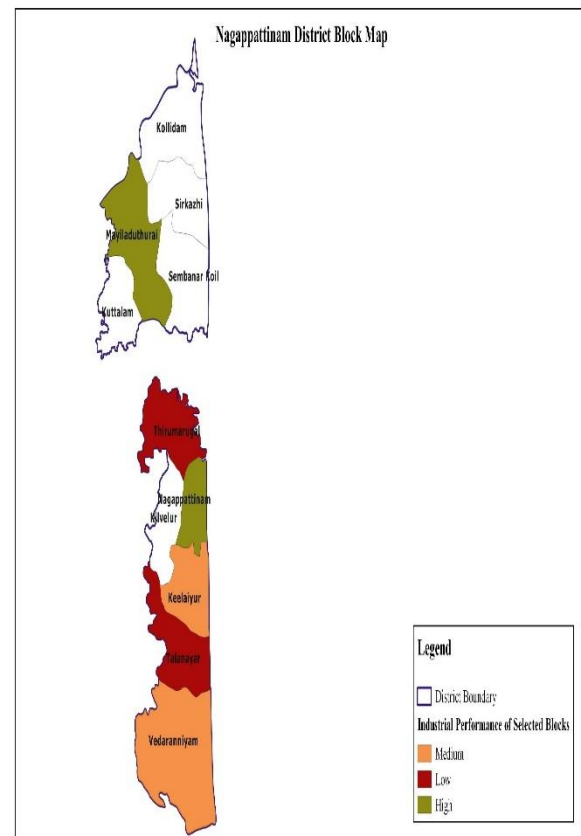To categorize blocks, the following data points were used.
• Count of MSME Clusters (based on DC-MSME Report)
• Number of SIDCO Industrial Estates
• Number of SIPCOT Industrial Estates
• Credit Outstanding, 2017-18 at Centre-level (Annual Data published by the Reserve Bank of India)

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, **t**wo blocks are randomly selected from each category.

High-Mayiladuthurai, Nagapattinam
Medium- Keelaiyur, Vedaranniyam
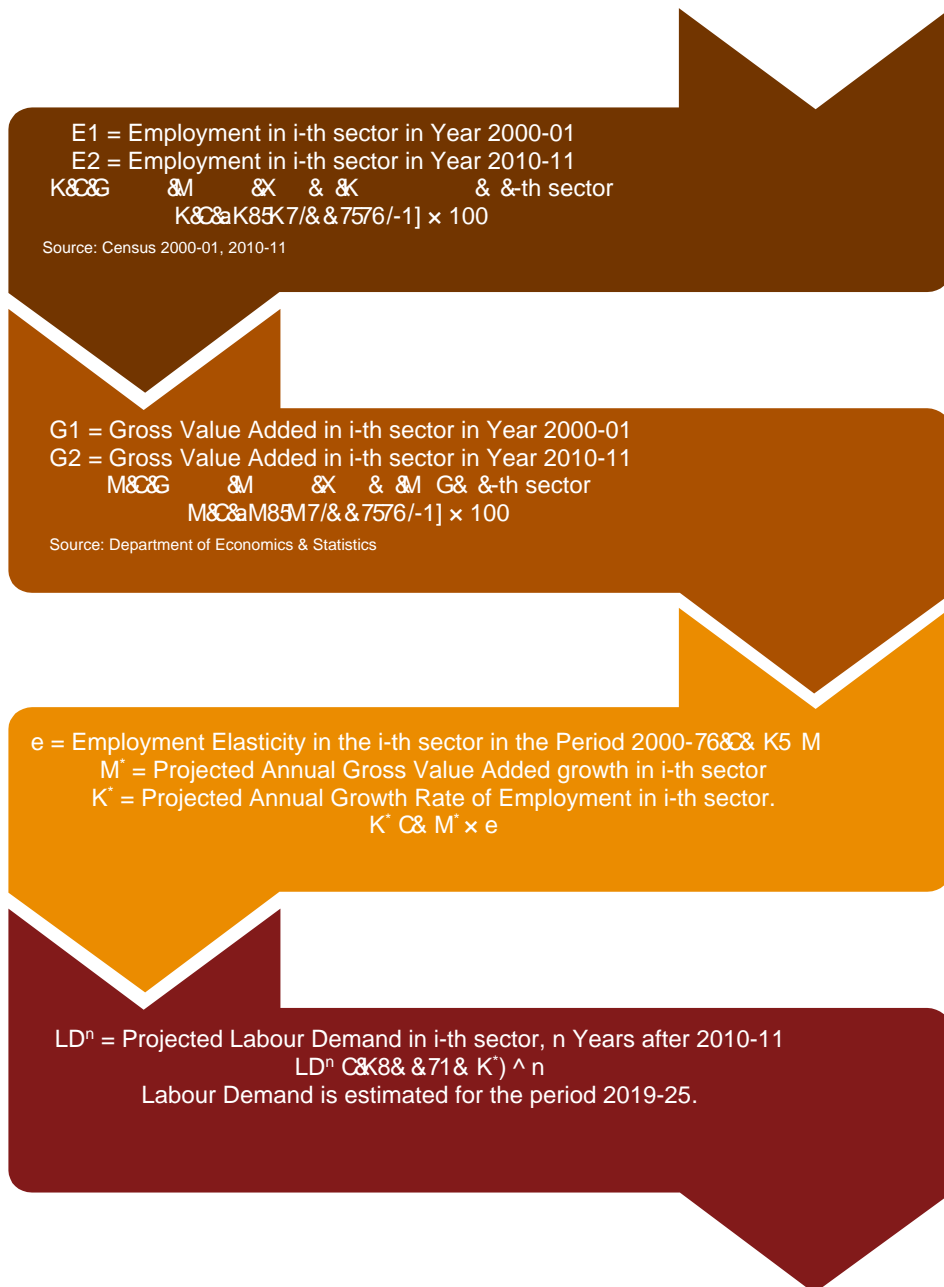**Low- Talanayar, Thirumarugal**

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 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 33: Steps in Demand Estimation

E1 = Employment in i-th sector in Year 2000-01
E2 = Employment in i-th sector in Year 2010-11

Source: Census 2000-01, 2010-11

G1 = Gross Value Added in i-th sector in Year 2000-01
G2 = Gross Value Added in i-th sector in Year 2010-11

Source: Department of Economics & Statistics

e = Employment Elasticity in the i-th sector in the Period 2000-76
M^* = Projected Annual Gross Value Added growth in i-th sector
K^* = Projected Annual Growth Rate of Employment in i-th sector.

LD^n = Projected Labour Demand in i-th sector, n Years after 2010-11
Labour Demand is estimated for the period 2019-25.

Supply Estimation

We estimated the average incremental supply of labour for the period 2011-16 and assume it to remain constant for the period of 2019-25. Although the population (15 & above) is increasing, the labour force participation is decreasing in the state[24]. 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 34: *Steps in Supply Estimation*

V72V8& 42V & refers to projected population (15 & Above) for the year 2011-16.

L1, R8& 2& L6 refers to Labour Force Participation Rate (15 & Above) for the period of 2011-16.

P1 × L1, P2 8R8& 4& P6 ×L6 refers to Projected Labour Force for the 2011-16.

O72O8& 2& I6 refers to Incremental Supply of Labour for the period 2011-16. I1 = (P2 × L2) (P1 × L1)

Average Incremental Supply of Labour = (I1 + I2 + I3 + I4 + I5 + I6)/6

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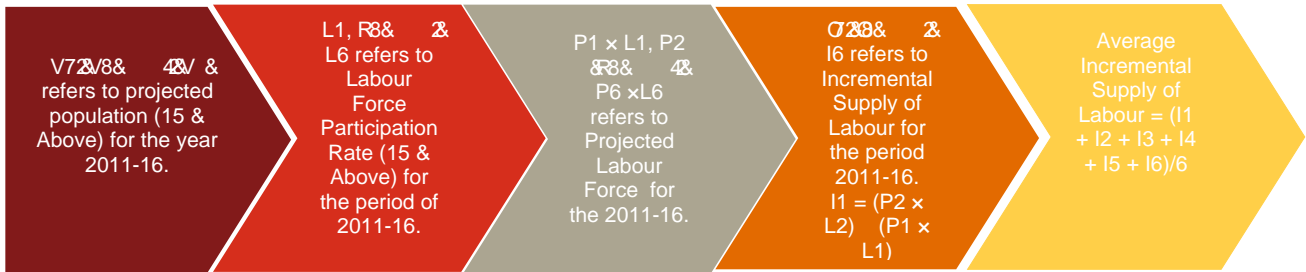
[24] Report on Employment-Unemployment Survey, 2011-12, 2012-13, 2013-14, 2015-16 & 2017-18.

A.3 List of Stakeholders Consulted

S.No	Stakeholder	Category
1.	District Collector	Govt. official
2.	District Industries Center- General Manager	Govt. official
3.	District Assistant Director, District Skills Department	Govt. official
4.	Government ITI College, Nagapattinam	Training Service Provider
5.	District Employment Officer	Govt. official
6.	Additional Director, Department of Fisheries	Govt. official
7.	Project Officer, Skill Development	Govt. official
8.	Nagapattinam Industries Association	Industry Association
9.	Government ITI College, Ettukudi	Training Service Provider
10.	Principal, ADJ Dharambal Polytechnic College	Training Service Provider
11.	Project Manager, GM-DIC	Govt. official
12.	Devar Rice Mill	Industry
13.	Rasi Masala	Industry
14.	Eltech Electronics	Industry
15.	Sree Neela Coffee Works	Industry
16.	Thamarai Siva Industries	Industry
17.	Kbm Engineering Works	Industry
18.	Maruthi Tech	Industry
19.	Raja Fibre Boat	Industry
20.	Uma Natural Ice Cream	Industry
21.	Sri Velavan Industries	Industry
22.	Sola Poly Pack	Industry
23.	Home Bread	Industry
24.	Muruga Flour Mill	Industry
25.	Balaji Maufacturing & Traders	Industry
26.	Manivannan Rice Trading	Industry
27.	Viven Pumps	Industry