

Skilling for the Future

Skill Gap Assessment & Action Plan for Tamil Nadu

District Skill Development Plan for Cuddalore

November 2019



Tamil Nadu Skill Development Corporation, Integrated Employment Offices Campus (1st Floor) Thiru. Vi .Ka Industrial Estate, Guindy, Chennai-600 032

Tamil Nadu Skill Development Corporation (TNSDC) Integrated Employment Offices Campus (1st Floor) Thiru. Vi .Ka Industrial Estate, Guindy, Chennai-600 032 T +044 2250 0107 E dettnsdm@gmail.com W https://www.tnskill.tn.gov.in Published by TNSDC, Chennai

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List of Abbreviations

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

Executive Summary

Background: The Vision 2023 of Tamil Nadu envisages shaping its future by empowering the youth in the state, through imparting market relevant skill training; to become responsible and participating citizens who drive a new era of development, growth, and productivity. Tamil Nadu has formulated a State Youth Policy, which aims at

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 2023¹.

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, through a competitive procurement process, engaged

Assessment and Action Plans for . This is the first time such a comprehensive State-wide skill gap study taking into consideration block-level information from each district has been conducted in Tamil Nadu. The study aims at identifying sources for self and wage employment in all 32 districts, estimating the sector-wise current and future labour demand (over the next six years) by industry, and assessing the overall labour supply and estimating the existing and emerging skill gaps.

also catering to the career aspirations of the youth; and (ii) how to design appropriate interventions that will enable active collaboration between various stakeholders for the common good. Workforce demand-projection for the upcoming years, disaggregated as skilled and semi-skilled workforce requirement has been estimated at the district level.

Methodology for Study: Mixed-method research design was adopted encompassing a blend of quantitative and qualitative data collection techniques, and desk research on secondary data sources. Structured into two phases, the first phase of the study comprised a compre

market, educational and skill development profile. The second phase of the study comprised the following:

 Youth aspiration survey: a quantitative survey covering 360 youth across the following groups engaged in economic activity (self-employed, wage-employed, entrepreneurs), students in formal education, vocational and skill training institutions (Polytechnics, ITI), and those who fall under the Not in Education, Employment or Training (NEET) category. Six blocks in the district were covered: Cuddalore, Komaratchi, Keerapalayam, Nallur, Kattumannarkoil and Virddhachalam

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

- Quantitative employer survey: covering 41 employers with adequate representation from Large, Medium, Small and Micro Industries across the key sectors defining the district economy.
- Focus-

including, representatives from Industrial units (with additional focus on MSME sector), district-level Industry Associations across priority sectors, officials from various government departments, representatives from various higher education institutions, and training service providers.

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

Key Findings:

Key findings of the study are presented hereunder:

	Median age set to increase from 28 years in 2011 to 34 years in 2026 indicating ageing
	nonulation and urgency to implement interventions
	 Increasing literacy among females indicates opportunity to improve female labour force.
	participation (which is currently 29 9%)
Demographic	 Urban population growth at 17.3% compared to 12% growth in rural areas (trend in outward)
Analysis	migration)
	The district ranks 19th in terms of Per Capita Income and 23rd in terms of Purchasing Power
	• The Economy of the District is dominated by the service sector, accounting for about 61% of
	the district output in 2017.
	• The cashews are generally grown in areas around Panruti, Vadalur, Neyveli and Virdhachalam
	and 60% of the state production of cashews is accounted for by the district.
	• The district has a coastline of 57.5 km. There is 27,966 hectare of inland water resources
-∕2 →	namely major irrigation and long seas
	tanks, derelict water and aquaculture farms.
Economic Analysis	• Development of roads connectivity to Cuddalore Port investment of INR 1000 crores and
	development of port at Sirkazhi, investment of INR 3000 crores (Sagarmala report)
	Neyveli Integrated Coldry-Matmor R&D Facility Pilot Project proposed
	• Cuddalore Food Park Project is expected to bring in investments of INR 1,000 Crore, with
	potential employment of 2,000 workers
	 Chemical and Petrochemical Project, is expected to bring in investments of INR 100 Crore, with potential employment of 700 workers.
	 More than half of the workers in the district are in casual labour, higher in proportion than at
**	state level
	• Unemployment rate in the district (6.6%) is higher than state average (3.6%). This is because
	of high unemployment among urban females especially with higher levels of qualification, the
Labour Market	latter indicating a skill mismatch. continued education of the girls or general population and late
Analysis	entry into the labour force
	• According to District Statistical Handbook, there were 1730 elementary/middle schools, 213
_ 	high schools and 208 higher secondary schools in the district. The Private sector dominates
	both the number of schools and the enrolments.
	• Cuddalore has 18 Polytechnic colleges in the district with a total enrolment of 18,623 students.
Education & Skill	There are 12 General Arts & Sciences Colleges with an enrolment of 20,672 students.
Development	d Science colleges in the district.
	• Also, the district has four Pharmacy colleges, one medical college, one hotel management
Findings from Drimon	college and one dental college.
Findings from Primar	y Survey
	 High preference for Govi, jobs as prefered by 42% of the respondents High salary aspirations at a median amount of INP 15 000 per month for ontry level jobs
	Construction Auto and auto components. Food Processing transport textile education and
	skill development and healthcare among sectors with high aspirations
	 Only 8.3% of youth interested in skill training

Youth Profile and Aspirations	 38.9 % of the total respondents had any awareness of Govt. run vocational programs while around 3.3% had undergone any vocational training previously. The most important source for the job related information was friends and peers (42.8%). The community, parents and family played a secondary role (37.5%). 54.2% 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 (48.1%) and placement support (36.7%) Information on Relevant vacancies
	(30.8%).
Employer & Other Key Stake holder Perspective	 Quantitative Survey The survey covered 41 Industries from primarily nine sectors, with highest representations from the manufacturing, renewable energy and green jobs, which are highest contributors to the local economy. 46% of the industries were in operations for more than 10 years. 70.7% of the industries surveyed reported to be in the Small Industries category. Majority of the employers (72.5%) recruited through employee reference, from either existing employees or known sources as a mode of recruitment. Local Community (12.8%) was the second most preferred mode of recruitment, followed by advertisements in media (10% each) The most common challenge they face by employers was candidate disinterest and attitude (58.1%), followed by high local wages (44.2%) and work hours (30.2%). Domain skills and communication skills are the two major requirements for workers. Responses indicate that there is medium to high demand for skilled labour perceived in the next five years. However, challenges faced in recruitment in general and from institutions need attention in order to improve the quality of the work force.
	 Qualitative Inputs Skill trainings in Short Term Courses is focused on IT/ITeS sector. ITIs have not upgraded equipment to meet industry requirements. The employability is very low in the district, the reasons being lack of industry-specific soft-skills or domain skills. Hard Skills lacking in supervisory roles in Industrial set ups. An Estimated thirty thousand migrants are working in the district largely from Eastern India Key Sectors of Employment are Chemicals, Ceramics, Construction, Hotel & Service Industry, Cashew nut processing. Largely Unskilled, they get trained on the job
Incremental Demand	 As per the skill gap estimation, the overall demand for skilled and semi-skilled workforce over the next six years is 94,561 Key sub-sectors driving the demand are manufacturing, construction, trade and repair services, education; human health and social work activities, and repair of computers and personal and household goods

Key recommendations:

Industry engagements: Training centres and institutions need to tie-up with local industries, understand the requirement in the sectors, and accordingly develop the curriculum. In addition, industry visits and hand-on training 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 and regular workshops. The institutions can tie up with the big industries in the district and collaborate with their CSR division and schedule meaningful trainings for the target group. The corporate officials can conduct entreprenuership and soft skills trainings for the target group. Most of the recruitmentin the industries are conducted through manpower hiring agencies. For these contract workers who are not hired directly, employers can take stock of contract workers as well in their audits and create a supportive environment for them as well. Workshops can be organized between the training service providers operating in Cuddalore 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. In order to encourage women to work in technical job roles, employers need incentives to create the appropriate working environment transport facilities, medical leave, creche system for women workers of all levels, and appropriate benefits and pay to retain workers.

Creating Awareness and conducting counselling sessions: Community engagement through college student volunteers can play an instrumental role in generating awareness in both rural and urban clusters of the district. Awareness camps generation regarding various important government schemes and programmes as well as social issues can be organized by these college student volunteers. There is requirement felt for life skills among the youth. This should be given 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: In order to bridge the gap between vocational training programs and industry, apprenticeship scheme must be popularized further, and priority given to local firms, so that they are able to recruit locally. This will help the small-scale industries to train and employ required workforce.

Government assistance: Government-support in terms of wage subsidies or stipends would also allow small firms to recruit locally and strengthen the skills ecosystem. Fostering such linkages would help both manufacturers and services providers (retail, telecommunications, healthcare, tourism and hospitality), along with vocational training institutions.

Development of a Quality Labour Force: Migrant Support Centres can be set up, which help the migrant workers with accommodation, workplace related challenges, and up-skilling/ re-skilling. Wage Subsidies/ provisions for living wage can be designed, so that the current workforce is able to work on the shop-floor without major attrition issues.

1. District Profile

1.1. Demographic Profile

The district of Cuddalore is the largest exporter of cashew nut oil. Cuddalore District comprises 10 taluks, 13 Blocks, 5 Municipalities and 18 Town Panchayats. The Cuddalore Port is situated at the confluence of the rivers Gedilam and Paravannar discharging as combined river into the sea and it is an anchor point for imports and exports. The district contributes significantly to the Tamil Nadu state production of cashew nut (highest) and jack fruit³.

SN	Indicator	Cuddalore	Tamil Nadu
1	Total population	2,605,914	7,21,47,030
2	Female population	1,294,217	36,009,055
3	Population Density per sq.km (2011)	704	555
4	Urban Population	33.9%	48.4%
5	SC population (as % of total population)	29.3%	20.0%
6	ST population (as % of total population)	0.6%	1.1%
7	Differently abled population (as % of total population)	1.6%	1.6%
8	Population in age group 15-34 years (as % of total population)	35.3%	34.8%
9	SC population aged 15-34 years (as % of SC population)	35.9%	36.6%
10	ST population aged 15-34 years (as % of ST population)	33.9%	35.0%
11	Literacy rate	78.0%	80.3%

Table 1: Key Demographic Indicators- Cuddalore vs Tamil Nadu4

Snapshot of Cuddalore'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 13.8% between 2001 & 2011, compared to 15.6% at state level. During the same period, the share of urban population has grown by 17.3% while the rural population has grown at a rate of 12.2%.
- Literacy: The district had a female literacy rate of 70.1% while the male literacy rate of 85.9%. 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 16%, reducing the gap between them from a 21.3% in 2001 to 15.8% in 2011. The reducing gap between the male and female literacy rates indicates a higher level of education attainment among females in the district.

³ http://www.tn.gov.in/deptst/agriculture.pdf

⁴ Census 2011 & 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 34, increasing the share of dependent population as illustrated in the age-specific population pyramid of the district as seen below.

Figure 1 Age-wise Population Pyramid of Cuddalore (2011 vs 2026)⁵

1.2. Economic Profile

Cuddalore is famous for its Ceramics industries, cashew nut processing, and oil production. It contributes to 2.6

1.2.1. Sector wise Analysis9

Figure 3 Sectoral Snapshot of GVA 2016-2017



Figure 4 Sectoral Share of GVA (2011-12 & 2016-17)



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The Economy of the District is dominated by the service sector, accounting for about 61% of the district output in 2017. Cuddalore is one of the less prosperous districts with a Per Capita GDDP lower than the State Average. This district has seen an increase in share of agriculture and allied sector since 2012. It is one of the few districts in the state to achieve this, primarily because to its cashew nut production. The Services sector has witnessed a growth from 56% in 2014 to 61% in 2017. The share of industry has gone down by seven percentage points between 2012 and 2017. There has been a relative slowdown in Industrial

Sector in recent years. At sector level, Manufacturing, Real Estate, Trade & Tourism, Construction & BFSI are the major contributor

Table 2: Sector wise- Annual Growth Rate	in Cuddalore (Directorate	of Economics and Sta	tistics, TN)
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Sector	2012-13	2013-14	2014-15	2015-16	2016-17	CAGR (2011-12 and 2016-17)
Agri & Allied	17%	27%	11%	-9%	0%	8%
Industry	-3%	2%	-4%	7%	2%	1%
Services	7%	11%	10%	5%	%	8%

Figure 5 Share of GVA b	v Industry of Origir	n (2016-2017)
	,	

			Constr., 13%	Agri, 9%	R Tou Ma 83
Real Estate, 25%	Other Sectors, 22%	Tr. & Tou., 14%	Manuf., 9%	Other services, 8%	1

Real Estate, Travel and Tourism, Construction and Manufacturing make up to 83% of the Total output of the district The Sector has grown at a CAGR of 9% between 2011-12 and 2016-2017, largely driven by agriculture. Total cultivated area is 3,13,223 hectare., out of which 59% area is irrigated and 41% is under rain fed cultivation). Major agricultural crops cultivated in the district are Paddy, Cumbu, Maize, Varagu, Blackgram, Greengram, Sugarcane, Groundnut, Gingelly and Cotton. Horticulture crops-cashew, banana, sapota, jack, aonla and guava, tomato, brinjal, bhendi, chillies,

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



tapioca and onion, spices like turmeric and plantation crop like betel vine. There are two State Horticulture Farms in the District, one at Neyveli and the other at Vridhachalam.

The cashews are generally grown in areas around Panruti, Vadalur, Neyveli and Virdhachalam and 60% of the state production of cashews is accounted for by the district. The fertile soil and good water provides ample scope for livestock rearing in the district. Cuddalore is not only a potential district for marine, but also for land and brackish water resources. The district has a coastline of 57.5 km. There is 27,966 hectare of inland water

derelict water and aquaculture farms.

Construction and manufacturing sectors account for more than half of the sector output. The sector experienced fluctuations in output and has grown at low CAGR of 1% between 2011-12 and 2016-17. The key manufacturing sectors by output include Beverages, basic chemicals, food products. Non-metallic mineral products, grain mill products and spinning, finishing and weaving of textiles are other sectors that employ a significant share of the Industrial workers.

Figure 7 Industrial Sector GVA (2016-17)



Major emerging sectors: Ceramic, rice Mill, Chemical and Coal based and fly ash brick industries.

Source: Directorate of Economics and Statistics, TN

The Cuddalore industrial complex is home to a number of chemical, biotech, pharmaceutical and fertilizer companies. A new harbour for ship building industry is under construction. Further, Cuddalore district hosts industries from energy sector like Saravana Global Energy, Energia Solar, ILFS Energy and Tamil Nadu Power Company etc. Traditional handicrafts units are spread across district. Cashew kernels, organic chemicals, marine products, ceramics and jewelleries are exported to other countries. There are two private sugar factories, one at Nellikuppam and other at Pennadam and one co-operative Sugar mill at Sethiathope. These factories not only produce sugar but also generate rectified spirit and carbonic gas. E.I.D. PARRY Company Ltd, at Nellikuppam, is a leading confectionary producer. Ceramic factories at Vridhachalam and Vadalur produce crockery and sanitary ware.

The Ceramic Cluster at Virudhachalam have availed grant under MSE-CDP scheme of Govt. of India and Govt. of Tamil Nadu for establishing Common Facility Centre (CFC) for Tunnel Kiln. Refractory cluster at Vridhachalam (Manufacturers of fuse carriers) also have received approval from Govt. of Tamil Nadu for establishing a CFC for Tunnel Kiln and is under initial stage of progress.

Due to the magnitude of the recent cyclone *Gaja* in 2018, extensive damages to the power infrastructure had affected rural industries 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

Refractory Cluster, Virudhachalam	Cashew Processing, Panrutti	Pottery, Cuddalore
Jewellery, Chidambaram	Ceramics, Virudhachalam	Coir, Cuddalore

Table 3 Profile of Manufacturing Sector from ASI 2014-15

Industry	No. of Units	No. of Employee	Gross Value Added (share in total GVA)	Share of Employment	Average workers per unit
Beverages	16	1,040	15%	5.9%	65
Basic chemicals, fertilizer and nitrogen compounds, plastics and synthetic rubber in primary forms	14	1,570	12%	8.9%	112
Other food products	50	6,514	12%	36.9%	130
Other chemical products	20	836	11%	4.7%	42
Non-metallic mineral products n.e.c.	73	2,267	9%	12.9%	31
Printing and service activities related to printing	9	214	4%	1.2%	24
Other fabricated metal products; metalworking service activities	6	425	3%	2.4%	71
Grain mill products, starches and starch products	49	49 808 1% 4.6%		4.6%	16
Special-purpose machinery	9	342	1%	1.9%	38
Spinning, weaving and finishing of textiles	3	474	1%	2.7%	1580
TOTAL	249	14,490	70%	100%	69

Source: Annual Survey of Industries 2014-15

According to the ASI 2014-15, more than 249 Industrial units were present in the district, directly employing 14,490 workers. Top 10 sectors contribute to 70% of the GVA of the district. Food products, non-metallic mineral products, beverages, chemical products including fertilizers and plastic were the key industries in terms of employment generation. Average workers per unit is maximum in food processing and textile industries, hence they tend to employ the maximum number of employees. In addition, these two sector tend to employ higher number of women workers. This is followed by the emerging Chemicals sector, which houses the famous industry Asian Paints.

Existing Industrial Estate

- SIDCO Industrial Estate, Semmandalam
- SIDCO Industrial Estate, Vadalur,
- Ceramic Industrial Estate, Vridhachalam
- SIPCOT Industrial Estate, Kudikadu

Real Estate, Trade and Tourism contribute to two-thirds of the total service sector in the district. The sector experienced fluctuations in output and has grown at a moderate CAGR of 8% during 2012 to 2017.

One of the famous tourist spots, silver beach, which remains swarmed with tourists round the year, is situated in the eastern side of Cuddalore in Devanampattinam. **Pichavaram mangrove forest** is located between two prominent estuaries, the Vellar estuary in the north and **Coleroon estuary in the south**. The backwaters, interconnected by the Vellar and Coleroon rivers, provide wide scope for water sports such as rowing kayaking and canoeing. Pichavaram is known for its backwater and mangrove forests. Cuddalore district is well known for its temples. The most famous of these is the Shiva Temple where the main deity **Padaleeswarar** is located near Chidambaram.

Figure 8 GVA of Services Sector (2016-17)



Cuddalore district has got strong base of handicrafts industries. Traditional handicrafts units are spread over across the district. Handicraft items such as jewellery, ceramics and *pasimani malai* have got more recognition outside the district. Ceramics units are concentrated in Vridhachalam area. A total number of 2782 handicrafts units are functioning in the district providing employment to about 5000 persons¹⁰. Particulars of handicraft units is furnished in the table given below:

Table 4 Handicrafts industries in Cuddalore

SN	Industries	No. of Units	Production value (Rs. in.'000)	Manpower employed
1	Jewellery	637	11466	1270
2	Wood Work	518	6216	1030
3	Ceramics	322	5796	640
4	Embroidery & Zari work	75	1350	150
5	Bamboo cane straw	92	1656	184
6	Leather	76	1900	150
7	Pottery	84	2016	164
8	Readymade Garments	287	6888	574
9	Pasimani malai	298	5364	596

Source: DC-MSME Report Cuddalore 2104-15

Cashewnut Industry¹¹:

Background: Cashew popularly known as the '**Gold mine' of wasteland** was initially introduced into the Cuddalore district (then South Arcot) from Konkan coast of Kerala in the early 19th century during British period mainly to meet out their demands of raw cashew nut, as the landscape favoured growth of cashew trees.

Cottage Industry has grown up in an increasing manner in the last ten years in Cuddalore district. Major products: Cashew Shell Oil, Peeled Cashewnut, Peeled Roasted Cashewnut, Cashew Nut Shell Liquid

(CNSL)-used by Paints and varnish industries

There are around 250-300 household cashew processing units, 27 medium sized export oriented units and 5 major large scale export oriented units by 2019.

94 villages in Panruti Taluk are involved in cashew nut processing, employing over 2 lakh workers Cashew nut oil extraction- 25 registered units in the district. Mostly employ unskilled labour (Married Woman in age group of above 35 years).

¹⁰ DC-MSME Report, 2014-15

¹¹ Primary stakeholder consultations at Cuddalore. International Journal of Research and Analytical Reviews- Volume 6, Issue 1, Jan. March 2019

Even though machines were in used for roasting, shelling and CNSL extraction

shelling, removal of testa and kernel grading by size are still being carried out by manual operations only.

A common state-of-the-art processing and packaging unit in Panruti spread across about two acres through the special purpose vehicle (SPV) has been developed in the cashew AEZ to promote cashew exports. Cashew kernels processed from this AEZ are exported to the countries like USA, Dubai, Saudi Arabia, Syria and Singapore as deemed export sales. The market trend in Europe, USA and other major markets showed

the strong emergence of organic cashew as a sizeable segment at a premium price

Challenges:

- The cashew industries face a shortage of raw cashew, since the domestic production is insufficient to feed the huge number of cashews processing units
- There is a considerable high rate of attrition within workers from one unit to the other in search of better wages
- Competition from emerging countries like Vietnam. The cost of production is lower due to use of high end machineries and efficient technology
- Youth not interested to take up such traditional activities.

Future Scope and Recommendations:

- Any cashew project development in the area can get assistance from APEDA (Agricultural and Processed Food Products Export Development Authority) besides assistance from ASIDE (Assistance to States for Development of Export Infrastructure and other activities) for development of infrastructure facilities.
- A common state-of-the-art processing and packaging unit in Panruti spread across about two acres through the special purpose vehicle (SPV) has been developed in the cashew AEZ to promote cashew exports.
- Adopting proven management technologies along with planting of grafts of high yielding varieties, the production and productivity of cashew can be enhanced, thereby boosting the cottage and export-oriented units through AEZ in Panruti with the scope of attaining self-sufficiency in the near future.
- Using new machinery, usage of solar drying and improved processing techniques will boost the growth.
- A training centre to educate workers on cashew processing techniques, personal hygiene and sanitation, etc. can be established
- Establish facilities for production of by-products such as Cashew Nut Shell Liquid (CNSL), a stream of exportable derivative chemicals from CNSL and bio-fuel briquettes from cashew husk and shell
- Model cashew demonstration farms can be designed to train the farmers to take up best practices.

Major Players:

- Sattva has an established history of over 10 years in Cashew Processing and marketing of cashew kernels with focus on the local institutional sales segment. They are in the advanced stage of establishing INR. 14.9 Crores modern cashew processing and packaging facility in a 25,000 sq. meter factory site, at Kattandikuppam, near Panruti.
- Tamil Nadu Cashew Processors and Exporters Association
- Cashew Oil manufacturing Association, Panruti

De-shelling-cashew nuts, Cuddalore

De-shelling-cashew nuts using machines

Cashew nut grading by size process, Cuddalore

Cashew nut drying process

Cashew nut oil boilers

Cashew nut oil tin packaging

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- Fishing boats are berthed at Cuddalore fishing harbour, Mudasalodai Fish landing centre, Samiyarpettai Fish • Landing Centre, MGR Thittu Fish Landing Centre, Parangipettai-Annankoil Fish landing centre and Pettodai Fish Landing Centre doing fishing.
- The annual total Marine fish production is 25,000 tons. The fishes caught are generally being sold in local market, to nearby districts and Kerala.
- 50% financial assistance to fishermen for construction of Tuna long liners cum Gill Netters
- Training conducted by the fisheries department include- Swach Pokara (300 trained). Fish market cleaning & hygiene (300 trained), sea safety training (500 trained)

1.2.2. Investments and key economic drivers

Figure 9 Sector-specific growth of Credit off Take¹⁴ (2012-17) - RBI



The District has seen recent growth in credit especially in Financial, and Trade. Credit offtake in Professional services has been low while Industry saw a decline.

According to the data collected from the RBI, the District has seen recent growth in credit across Financial, Transport and Professional Services sectors.

Other key investments and sectors include:

- Development of roads connectivity to Cuddalore Port- investment of INR 1000 crore and Development of port at Sirkazhi, investment of INR 3000 crores¹⁵
- Investment is expected in Food processing sectors as per the TN GIM (Tamil Nadu Global Investors Meet)
- Neyveli Integrated Coldry-Matmor R&D Facility Pilot Project proposed
- Cuddalore Food Park Project is expected to bring in investments of INR 1,000 Crore, with potential employment of 2,000 workers
- Chemical and Petrochemical Project is expected to bring in investments of INR 100 Crore, with potential • employment of 700 workers

Food processing, chemicals, agri-business, manufacturing and trade are sectors with high growth potential. Tourism and Hospitality also has immense potential to grow religious tourism in the district.

Large Investments





¹⁴ 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.

¹⁵ Sagarmala investment plan

1.3. Labour Market Profile¹⁶

The overall labour force participation and worker population ratio are lower at the district level than at state. More than half of the workers in the district are in casual labour, higher in proportion than at state level. Youth Unemployment Rate (15-29 years) is higher (22.6%) by 11 percentage points at the district level than at the state level (11.4%).



Figure 10 Key Labour Market Indicators¹⁷

Figure 11 Distribution of Working status by Qualification: District Level Estimates



between industry expectation and supply .

Table 5: LFPR and Unemployment Rate by gender & Location

	LF	PR	Unemployment Rate			
Sex	Rural	Urban	Rural	Urban		
Male	79.9%	71.6%	3.6%	4.2%		
Female	31.7%	26.3%	5.5%	33.9%		

The education-level classification of the district population reveals that the unemployment rate among youth with higher education is strikingly high in the district. One-fifth population with post graduate and above level of education is unemployed. The overall trend suggests positive correlation between unemployment level and level of education, pointing towards mismatch between industry demand and supply from the educational institutions in the district. the gap

Disaggregation by area and sex, it is found that females have an rural labour force participation rate 5 percentage points higher than the urban counterpart. The urban unemployment rate for females is 28 percentage points higher than the rural counterpart. Such a gap is not seen in the

figures for males, indicating that urban women face a lack of employment opportunities and there is a scope for training woman in the district. Higher unemployment rate among urban female has increased the overall urban unemployment rate of the district to 6.6%.

¹⁶ Analysis in this section are based on the District Level Estimates, EUS, 2013-14, Labour Bureau

¹⁷ District Level Estimates, EUS, 2013-14, Labour Bureau

Figure 12 Sector-wise share of Employment

36%	20%	14%	13%	11%	6%
Manufacturing	Trade, Tourism & Comr	numication	Agriculture & Allie	ed	
Construction	Other Service Sectors	-	Others		
Source: District Level Estimates, EUS, 2013-14, La	abour Bureau				

More than one third of the workforce in the district is employed in the manufacturing sector and 13% employment in construction but the overall contribution from Industry sector is 24% of the GDDP. This reflects there is an issue of productivity in the industrial sector. Trade, Tourism and Communication is the second most important sector in terms of employment followed by agriculture. The ratio between agriculture employment and output is relatively high and indicates high productivity of the workforce in the district.

A large share of the population is employed in manufacturing. However, the productivity is low as Industry sector contributes to only 24% of the GDDP. In addition, unemployment among those with college education is a concern.

1.4. Education and Skill Development Profile

1.4.1. Education Profile

The district is home to one the oldest educational institution, Annamalai University. According to District Statistical Handbook, there were 1730 elementary/middle schools, 213 high schools and 208 higher secondary schools in the district. The Private sector dominates both the number of schools and the enrolments.

The Gross Enrolment Ratio at both Primary and Upper Primary are higher than the state averages. 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 0.5% at the primary level but is quite high at 2.4% at the upper primary level.

Cuddalore has 18 Polytechnic colleges in the district with a total enrolment of 18,623 students. There are 12 General Arts & Sciences Colleges with an enrolment of 20,672 students.

district. Apart from this, the district has four Pharmacy colleges, one medical college, one hotel management college and one dental college.



			Students		
S.No	Institution Type	No of Institutions	Males	Females	Total
1.	Engineering Colleges	7	3,239	1,411	4,650
2.	General Arts & Science Colleges	14	6,631	14,041	20,672
3.	Polytechnics	18	12,345	6,278	18,623
4.	Management college	1	65	24	89
5.	Teacher Training Institutions	38	403	1,264	1,667

Table 6 Institutions of Higher Education in Coimbatore District¹⁸

¹⁸ District Statistical Handbook, Govt. of Tamil Nadu

1.4.2. Vocational Education and Skill Development Profile

The skill training infrastructure of the district include skill training centres implementing schemes like TNSDC, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and Deen Dayal Upadhyay Grameen Kaushal Yojana (DDU-GKY).

Under the PMKVY scheme, four training institutes offered courses on sewing machine operator and selfemployed tailor. Apparel is the most prominent sector under PMKVY.

Table 7	Vocational	Training ur	nder Short	Term Skill	l Developmen	t Programs ¹⁹
Tuble I	vooutionui	riuning u				ci rogramo

Scheme	Sector	Job Role	No. of Training Centres	Intake
Deen Daval	Apparel	_	13	1 825
Upadhvav	Agriculture			1,020
Grameen Kaushal	Retail			
Yojana	Electrical			
	Food processing			
	Automotive			
	Construction			
	Iron & Steel			
	Tourism and			
	Hospitality			
	Healthcare			
	The strenging			
	Electronics			
	Logistics & Supply			
	Change			
	Management			
Pradhan Mantri	Apparel	Sewing Machine Operator	4	170
Kaushal Vikas		Hand Embroiderer	2	106
Yojana		Self Employed Tailor	4	150
		Specialized Sewing Machine	1	30
		Operator		
	Electronic and	Field Technician -	_	60
	Hardware	Computing and Peripherals	1	
	Construction	Assistant Electrician	1	15
	Beauty and Wellness	Assistant Beauty Therapist	1	60
	Telecom	Handset Repair Engineer	1	60
	Retail	Retail Sales Associate	1	60
	Agriculture	Dairy Farmer/ Entrepreneur	1	120
		Gardener	2	90
Tamil Nadu Skill Development	Allied Health Care	General Duty Attendant (Gda)	1	105
Programs		Geriatric Assistant	1	40
	Apparel	Sewing Machine Operator	1	160
	Automotive Repair	Basic Automotive Servicing	2	80
		Basic Automotive Servicing	2	80
	Deauty And	4 Wheeler	4	<u> </u>
		Assistant Beauty Therapist	1	60
		Beauty Therapist	1	60
	Construction	Mason General	1	40
		Bar Bender And Steel Fixer	1	40
		Assistant Electrisian	1	80
		Assistant Electrician	l l	00
		Wheel Tractor Backhoe Loader Machine Operator	1	60
		Wheel Tractor Backhoe Loader Machine Operator Excavator Operator	1	60 60
		Wheel Tractor Backhoe Loader Machine Operator Excavator Operator Junior Land Surveyor	1 1 1 1	60 60 20
		Wheel Tractor Backhoe Loader Machine Operator	1	60

¹⁹ 2017-2018 training year report.

Scheme	Sector	Job Role	No. of Training Centres	Intake
	Electrical	Electrician Domestic	6	240
		Electrical Winder	2	60
	Fabrication	Arc And Gas Welder	1	40
		Sheet Metal Worker (Panels, Cabins & Ducts)	2	60
	Garment Making	Tailor (Basic Sewing Operator)	1	120
		Zig Zag Machine Embroidery	1	120
	Information And Communication	Web Designing And Publishing Assistant	1	60
		DTP And Print Publishing Assistant	1	60
		Computer Hardware Assistant	1	60
		Accounts Assistant Using Tally	1	60
	IT/ITeS	Associate Desktop Publishing(DTP)	1	60
		CRM Domestic Non Voice	1	60
	Logistics	Consignment Booking Assistant	1	40
	Medical And Nursing	Nursing Aides	1	65
		Bedside Assistant	2	125
	Refrigeration & Air Conditioning	Repair & Maintenance Of Automobile Air Conditioning	2	120
		Repair And Maintenance Of Refrigerator	2	60
		Repair And Maintenance Of Window And Split A.C	2	60
	Retail MES	Sales Person (Retail)	1	170

The long-term skill development programs are predominantly offered through Industrial Training Institutes, which offer one and two year programs in various sectors and trades. 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 ITI, 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	Industrial Training InstitutesAutomobiles and Auto Components		17	810
(Craftsmen Training Scheme)	Capital Goods	Draughtsman (Civil)	3	52
		Draughtsman (Mechanical)	1	27

Scheme	Sector	Job Role	No. of Training Centres	Intake
		Information Communication Technology System Maintenance	1	28
	Management and Entrepreneurship & Assistant (English) Professional		1	37
	Mining	Fitter (DST)	1	699
		Fitter	15	0
	Plumbing	Plumber	1	8
	Strategic manufacturing	Marine Engine Fitter	1	31
	Textiles and Apparel	Sewing Technology	1	25
		Surface Ornamentation Techniques (Embroidery)	1	25

Figure 14 Proportion Undergone Vocational training 2015-16, MoLE²⁰

With respect to vocational training in the district, 4.4% had received training in the district, when compared to 5.1% in the state as per Employment and unemployment survey 2015-16. This is lower than average.



²⁰ Employment and Unemployment Survey 2015-16, Ministry of Labour and Employment

2. Youth Perspective

2.1. Profile of Respondent Youth

The structured household survey tool was administered with the 360 youth (young men and women in the age group of 15-34 years) sampled from six blocks **Cuddalore**, **Komaratchi**, **Keerapalayam**, **Nallur**, **Kattumannarkoil and Virddhachalam**. Of the total respondents, **53.6%** were **female**. **Majority (almost four fifth) of the respondents** were from the rural category. The sample has balanced representation of various socioeconomic and demographic characteristics of the population.





2.2. 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 Self Employment (31.6%) category, the male respondents were largely distributed between Wage / Salaried Employment (34.1%), and in Education system (28.1%).

Figure 16 Current Status of Respondent by gender



2.3. Economic Engagement of Youth

Out of the respondents who are not presently working, 5.8% of these respondents have ever been engaged in economic activities. % of the respondents (ever engaged in an economic activity and currently working) reported that they were employed in a field related to their education/ training. 93% of these respondents who were currently in employment and ever worked were females.

Figure 17 Distribution of Respondents across Monthly Income Category across gender



More than half (54.4%) of the respondents under this category were females.

61.2% of these female respondents reported that they receive less than INR 5000 monthly. More than half of the male respondents under this category (56.1%) reported that their monthly income is less than INR 10,000 (n=82). 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. Around 38.3% of the respondents were dissatisfied with their jobs (n=180).

Among those with education of higher secondary and below, skilled work like tailor, mason were the most common form of economic activity. It is important to note that, 19% of the respondents who had completed their post-graduation, graduation or Diploma degrees had been engaged in unskilled work.

n=180

Table 9 Education Qualification of Respondents and Employment Type

	Upper Primary and Below	Secondary	Higher secondary	Diploma	Graduate	Post Graduate
Farm Activities	6.9%	14.3%	17.6%	4.3%	11.1%	0.0%
Unskilled worker (construction, MNREGA)	6.9%	9.5%	5.9%	4.3%	5.6%	9.1%
Salaried Employment (teacher, government official, etc.)	0.0%	0.0%	5.9%	19.6%	22.2%	36.4%
Skilled worker (tailor, mason)	62.1%	54.8%	47.1%	34.8%	16.7%	18.2%
Petty Business/Trade	20.7%	14.3%	20.6%	32.6%	38.9%	36.4%
Major Business/Trade/ Manufacturing	3.4%	7.1%	5.9%	8.7%	5.6%	9.1%
Number of respondents	29	42	34	46	18	11

Figure 18 Youth survey findings across categories

Youth Survey findings

NEET (n= 101)

- 46.5% in 15-24 years age group
 56% female respondents; 40% total
- respondents married42% have completed Graduation
- 42% have completed Graduation
 10% respondents had prior work
- experience

Student (n=90)

- · 91% in 15-24 years age group
- 47.8% female
- 80% from rural areas
- Higher income- reason for self employment as stated by 86% respondents

Self Employed (n=80)

- 17.5% aged 15 -24 years; 44% in 30-34 years age group
- 76.3% female
- 13.8% have completed graduation

Wage employed (n=89)

- 31.5% aged 15-34 years; 36% in 30-34
- Years age group
- 36% female
- 6.7% have completed post-graduation
 22.6% have distance description
- 32.6% have diploma/ college education

2.4. Youth under NEET Category

28.1% of the total respondents were neither in employment, nor in education nor in any training.

56% of the NEET category respondents were females. Majority of the NEET respondents (40%) of the respondents were between the age group of 20-24 years while 33% were between 25-29 years. 36.6% of the NEET respondents reported to have completed their Diploma course and 30% had completed their graduation. This shows that there is high level of educated unemployment in the district.

Only 10% of the NEET respondents have ever worked before.

While the most of the respondents in NEET category have been in it for more 1 year (60%). Almost two-thirds of the female respondents in the NEET category have been in the category for more than a year.

75.4% of the female NEET respondents and 56.8% of the male NEET respondents, wish to work in the future. All the male respondents and 95% of the female respondents in the NEET category are actively seeking work opportunities and 45% of them are looking for job opportunities for more than 1 year.

Duration in NEET Category (n=101)				Wish to Work (n=68)			
	Female	Male	Total		Female	Male	Total
Less than 6 months	12.3%	27.3%	18.8%	Yes	75.4%	56.8%	67.3%
6 months- 1 year	24.6%	15.9%	20.8%	Total	43	25	68
1-2 years	17.5%	25.0%	20.8%	Actively Seeking Work (n=66)			
2- 3 years	12.3%	9.1%	10.9%		Female	Male	Total
3 - 4 years	3.5%	6.8%	5.0%				
4 - 5 years	1.8%	2.3%	2.0%	Yes	95%	100%	97%
More than 5 years	28.1%	13.6%	21.8%	Total	41	25	66

Table 10 NEET Category Respondents

2.5. Youth in Vocational Training

3.3% of the total respondents have undergone vocational trainings. Three fourth of these respondents received trainings under govt. scheme. Out of the 12 respondents who have undergone training only 50% received job offers and only three respondents have joined the job. The rest of the placed candidates did not take up the offer, due to the wages being lower than average market standards.

2.6. Youth Career Aspiration

The youth in the district have preference for wage / salaried employment (37%) with the public sector (42.2%). Both female and male respondents have shown similar interest in the pursuit of wage employment, while males have a substantially higher interest in pursuit of private sector employment and female respondents aspired for self-employment as it gives them more flexibility towards working hours and balancing their household activities.



Figure 19 Career Aspiration of Youth

72.7% of the youth feel there is a lack of adequate employment opportunities available in the district.

The main factors determining the aspiration of the youth are Salary (wages) / Income (84.7%), Job Security (37%) and Social Status (19.7%). About 70% of the total respondents 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 the youth feeling prepared is their available work experience in the relevant field (51%).

Factors Determining Aspiration* (n=360)	Responses	Perception of Preparedness for Jobs (n=360)	Responses
Salary (wages) / Income	84.7%	Largely Prepared	69.7%
Job Security	66.7%	Moderately Prepared	3.6%
Social Status	19.7%	Somewhat prepared	1.7%
Safety / Security	14.7%	Not Prepared	25.0%
Retirement Plans	10%	Availability of Job Opportunities (n=360)	Responses
Closeness to Residence	3.3%	Very adequate	3.6%
Traditionally Acquired Skills / Family	2.2%	Somewhat adequate	3.9%
Business		Neither adequate nor inadequate	14.7%
Gender suitable role	1.7%	Inadequate	72.7%
Employer provided benefits and perks	1.4%	Do not know	5.6%

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

Multiple response question

Lack of sufficient education qualification was the major challenge faced by youth in pursuing their career aspiration. Other factors include lack of family support (14.4%). **11% 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 (n=360)*

Challenges	Responses	Challenges	Responses
Lack of sufficient education qualification	25.8%	Lack of work experience	5.0%
Lack of family support / social acceptance of girls being engaged in economic activity	14.4%	Lack of guidance / information on appropriate job available for skill levels	3.1%
Lack of vocational skills	11%	Pressure related to getting married	9.4%

Challenges	Responses	Challenges	Responses
Lack of jobs locally	6.9%	No Challenge	38.1%

*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 (41.9%), soft skills (32.8%) and certifications in technical skills (8.9%). Team work (36.9%), Clear Communication Skills (67%) and Creativity, originality and initiative (27.2%) were identified as key skills specific to their aspired jobs. While 46.4% respondents had already taken steps to meet these requirements, 37.8% respondents were looking to continue education, 18.1% were intending to take up a vocational / skill training program while 17% were looking for apprenticeships.

Key Requirements to enhance employability* (n=360)					
Requirements	Responses	Requirements	Responses		
Education attainment (level of education)	41.9%	Years of Relevant Work Experience	4.7%		
Soft skills	32.8%	Institution of Education / Skill Training	1.4%		
Certifications of Technical Skill	8.9%	Relevant work experience in similar	0.6%		
References	8.1%	position or field	0.0%		
Key Skills	Required for o	desired job*(n=360)			
Clear communication	29.2%	Active listening	3.1%		
Coordination Skills	5.6%	Leadership	14.7%		
Team work	36.9%	Creativity, originality and initiative	27.2%		
Time management	6.4%	Complex problem-solving	8.1%		
Analytical thinking	8.9%	Attention to detail	0.8%		
New Step	os to achieve a	spirations*(n=360)			
Steps	Responses	Steps	Responses		
Already in Pursuit	46.4%	Apprenticeship / Gathering Work Experience	17.8%		
Vocational/ Skill Training 18.		Othere			
Continuing Education	37.8%	37.8%			

*Multiple response question

Career aspiration and preference of sectors varied across the gender group. Education (23.8%), Textiles (22.8%) and Healthcare (19.7%) were the most preferred sectors among the female respondents (n=193) while the male respondents (n=167) preferred sectors like Auto and auto components (13.8%), Construction (13.8%), Transport (10.2%) and food processing (11.9%). However, these were the least preferred sectors by the female respondents. The figure below details out the gender wise career aspiration for the youth. 90% of the total respondents stated that they were not interested to take up any gig work.

Gender wise preferred sectors Auto & Auto Construction Education & Textile & Skill components Apparel Development Healthcare Retail Food Transport and Services Processing Trade



Figure 20 Sectors aspired by respondents (female=193, male=167)

90% of the total respondents stated that they were not interested to take up any gig work.

The median wage expectation

Male 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 INR 10,001 to 20,000.

Respondents currently in education system had higher income expectation, 4.4% aspired more than INR 40,001 monthly.

Compared to respondents in self-employment where 53% aspired for income above INR 10,001, more (65%) respondents in wage employment aspired for the same.









Half of the respondents preferred a job within their hometown. The respondents were reluctant to migrate outside of their hometown / district for the purpose of employment. Even though male respondents were ready to move outside their hometown, female respondents preferred their work locations to be situated within their hometown.

Figure 23 Sources for Job Information*



The most important source for the job related information was friends and peers (42.8%). The community, parents and family played a secondary role (37.5%).

54.2% 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 (48.1%) and placement support (36.7%) Information on Relevant vacancies (30.8%).

Figure 25 Preference on Counselling Services*



2.7. Skill Training Preferences of Youth



Figure 24 Perception on Counselling Services



²¹ Multiple Response, Sum may exceed 100%

38.9 % of the total respondents had any awareness of Govt. run vocational programs while around 3.3% had undergone any vocational training previously. Only 8.3% of the respondents were interested in undertaking any vocational training. Of these respondents 54.8% wanted the trainings to be short term certificate courses and 64.4% wanted the courses to be part time in nature. Though the respondents weighed most aspects of a training program as being important, they were mostly concerned with quality of internship/ apprenticeship training (87.1%) and quality of training (77.9%).







3. Employer's and Other Stakeholder's Perspective

3.1. Employers' Perspective

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

The survey covered 41 Industries from primarily nine sectors, with highest representations from the manufacturing, renewable energy and green jobs, which are highest contributors to the local economy. 46% of the industries were in operations for more than 10 years. 70.7% of the industries surveyed reported to be in the Small Industries category.



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.	Manufacturing	26	6.	Agro-business	1
2.	Renewable Energy & Green Jobs	4	7.	Auto and Auto Components	1
3.	Warehousing and Packaging	2	8.	Chemical & Pharmaceuticals	1
4.	Others	2	9.	Capital Goods	1
5.	Iron and Steel	2	10.	Food Processing	1

Majority of the employers (72.5%) recruited through employee reference, from either existing employees or known sources as a mode of recruitment.

Local Community (12.8%) was the second most preferred mode of recruitment, followed by advertisements in media (10% each). There has been slower uptake of recruitments from Job Melas and Campus recruitment, social networks or web portals.

The most common challenge they face by employers was candidate disinterest and attitude (58.1%), followed by high local wages (44.2%) and work hours (30.2%).

Table 15 Modes and Challenges in Recruitment Process*

Key M	odes of Recruitment		Key C	hallenges faced in Recruitment	
S.No	Particulars	%	S.No	Particulars	%
1.	Employee Reference	72.5%	1.	Candidate Disinterest and Attitude	58.1%
2.	Local Community	12.8%	2.	High local wages	44.2%
3.	Advertisements in Media	10%	3.	Work hours	30.2%
4.	Manpower Agencies	8.1%	4.	Lack of Prior Experience	14.0%
5.	Job Melas	5%	5.	Lack of requisite core skills	9.3%
6.	Web portals	5%	6.	Requirement of safe working conditions/toilets for Women	4.7%
7.	Social Networks	5%	7.	Nature of work requires strenuous physical labour	4.7%
8.	Campus recruitment in ITIs/Polytechnic	5%	8.	Lack of safe transportation	4.7%





The surveyed industries were largely dominated by the male workers. Semi-Skilled workers dominated the share of workforce (47.3%) followed closely by unskilled workers (29.9%). Most of the female employees were employed in the unskilled workers category as daily wage labourers for doing manual work. While 80.5% respondents affirmed sourcing migrant workers from other districts of Tamil Nadu, all (41 employers) confirmed sourcing workers from other parts of the country. Among these (33), 85% of the respondents sourced their workers from the southern districts of Tamil Nadu. All the employers stated that they recruited employees from Eastern India. States of Bihar, West Bengal and Odisha were the key sources of migrant workers.

Figure 31 Key causes of Attrition *



The employers estimate 30-40% attrition annually from their workforce.

Inability to adjust to work environment (85.7%) and household duties were the dominant cause of attrition. Lower wages, resistance by family and safety/ security issue were the other causes of attrition in the enterprises.



The employers stated that domain skill upgradation of the workers needs the most focus. In addition, 38.9% employers stated that communication skills trainings are required for the workers.

36.1% of the employers feel there is high growth prospects in the industries, while only 8.6% of the respondents see high adoption of technology in the future. Among these, only 17.8% of the respondents have already initiated plans in adoption of technology.



8.3% Industries Plan for High technology adoption in future



Table 16 Growth Prospects and prospective adoption of technology

Growth Prospects of Industry (n= 41)	%	Level of Technology adoption (n= 41)	%	Plans to adopt Technology	%
High	36.1%	High	8.6%	Yes	17.8%
Medium	25.0%	Medium	34.3%		
Low	33.3%	Low	42.9%	No	62.2%
Can't Stay	5.6%	Can't Stay	14.3%		

The employers see a high demand for both minimally skilled and skilled workers while only 20% of the respondents see high demand for supervisory roles. 90% of the respondents provided some sort of training to their workers. Trainings were largely given for career advancement and domain skills for recruitment.

Table 17 Demand for workers by Skill Level and type of training provided to workers

Demar	nd for Workforce in I	next 5 year	Type of Training Provided for Workers	
	Minimally Skilled	Skilled	Supervisory	Type of Training %
High	68.2%	48%	21%	Induction 50%
Demand				
Medium	31%	50%	56%	Domain skills on recruitment 40%
Demand				
Low Demand	5%	2%	16%	Up-skilling to meet technical needs 25%

Domain skills and communication skills are the two major requirements for workers.

Responses indicate that there is medium to high demand for skilled labour perceived in the next five years. However, challenges faced in recruitment in general and from institutions need attention in order to improve the quality of the work force.

3.2. Other Stakeholders' Perspective

The study also included in-depth interviews of more than 18 stakeholders including District Collector and other line departments involved in the Skill Development, Livelihood and Employment and Industrial development related activities, Industrial Associations, Vocational Education and Skill Development institutions among others. A focus group discussion was conducted with 20 stakeholders from various organizations in sectors such as ceramics, cotton, construction, petro products and auto components.

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

Table 18: Qualitative findings Cuddalore

S No	Торіс	Responses
1.	Awareness of government skill training programs/ jobs/ job melas	 Low level of awareness amongst Work force; they do not know where to search for jobs Low level of awareness regarding job fairs that are being conducted locally No awareness of government skill training programs
2.	Education- schools, ITI/ Polytechnics/ Engineering colleges in the district	 School curriculum needs to be revised Examination and evaluation patterns to be designed such that it can effectively assess the students Training institutions do not emphasize practical application of knowledge Low attendance rates in colleges especially private ITIs Ulundurpet ITI sponsored by Hyundai offered to pay INR 8000 as stipend for apprentice programme, but students are still not willing to join Engineering students lack practical knowledge and are generally paid lesser than ITI graduates nowadays. They are not given proper technical training required in the job market. Unemployed youth who join short-term training programs are more willing to work in private companies. Most ITI students go to Tiruchirappalli for jobs (BHEL and its ancillary units) Courses to be aligned to industry need- Polytechnic colleges near the SIPCOT chemical estate does not offer Chemical diploma course

S No	Торіс	Responses
		 Female students are willing to work in sector such as BPO, garment making, food processing, IT, hospitality, etc. provided the employers provide accommodation and transport and they do not have to move out of the district Rural youth have low motivation and learning ability (due to language issues)
3.	Candidate Attitudes/ Abilities	 Due to MNREGA program paying more than factory work, people tend to gravitate towards the former A job-guarantee scheme program for industries would help local firms with facing labour shortages Local youth do not prefer shop-floor roles, and prefer white-collar jobs Local youth also do not prefer to work in smaller firms, and want to migrate to Chennai Candidate disinterest leads to attrition However, women workers are more willing to work on the shop-floor, and have lower attrition rates (especially in textiles and mosquito net making) Candidates recruited through job fairs also tend to aspire to desk-based jobs over shop-floor roles, while the latter has more demand Machine repair and maintenance workers are also needed, for which supply is low
4.	Migrant workers	 The ceramic factories in Vridhachalam employ about 2000 migrant workers from Eastern India. The daily wage is around INR 500 to INR 1000. Migrant workers are employed in unskilled/ semi-skilled job-roles They work for lower pay, and are recruited through manpower agencies 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 Most of the chemical industries in the district is technology driven However, textile and cashew nut processing industries have 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 once used to have many Ceramic units Due to non-availability of raw materials in recent years, the production of ceramic and refractory industry has gone down considerably, which is highly affecting the employment. There is a government institute exclusively for Ceramic Technology in Virudachalam. Female employees are also provided employment in these factories. The industrial sector is yet to fully recover from the external shocks of demonetization and GST. Cashew processing plants are facing a tough competition from Vietnam
8.	Labour Requirements	 Job opportunities for the skilled category present. There is a growing trend amongst youth to either seek government jobs or be employed with the big brands. The industries perceive a preference for jobs among youths in the services sector, especially in retail, food delivery and cab services over a fixed employment in manufacturing sector.
9.	Women Employment	 Female employment is largely focussed in the cashew nut processing industries and spinning units. There is greater acceptance of females in the food processing units. Women are engaged in fishing industries too.

S No	Торіс	Responses
10.	Skill Gaps	 Students lack in 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. There is increased investments collaborations by national and international companies in the Industrial sector which value work ethics, professionalism and timeliness among other things. This is a major challenge to inculcate during employment.

Specific Skill Requirements include:

- Supervisory roles in the food-processing, cashew processing, and spinning mills to manage entry level skilled workers.
- Receptionists, Tour Guides, Cab Drivers among others in the Tourism & Hospitality sector. There is a requirement to learn multiple languages especially, English and Indian regional languages. As Pondicherry is just 20 km away, there is a high demand of workforce in the tourism sector
- GST Accountants are needed across sectors owing to the recent tax reforms.
- In general, the government must 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

4. Skill Gap Analysis

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

The district of Cuddalore is witnessing increased urbanization and increase in both industrial and service sector.

As per our methodology for estimating demand and supply, manufacturing, other services, agriculture, construction, transportation and communication, hotels and restaurants, and trade and repair services show high levels of demand for both skilled and semi-skilled workers.

Table 19 Sector wise Incremental Demand for Skilled and Semi-Skilled Workers between 2019 and 2025

Sectors	Incremental Demand for Skilled Workers			Incremen Sk	Total Increme ntal Demand		
	2019-21	2022- 25	Total	2019-21	2022-25	Total	Total
Allied Activities (Fisheries,							
Livestock, forestry etc.)	252	369	621	1,765	2,584	4,349	4,970
Manufacturing	2,601	4,110	6,711	5,202	8,220	13,422	20,133
Electricity, gas, water supply and other utility services	91	132	223	183	263	446	669
Construction	1,296	2,125	3,420	3,239	5,312	8,551	11,971
Trade & Repair Services	464	659	1,123	1,606	2,280	3,886	5,008
Hotels and restaurants	546	828	1,374	1,058	1,605	2,662	4,036
Transportation and storage	216	296	512	518	710	1,228	1,740
Communication and services related to broadcasting	697	1,077	1,774	348	538	887	2,660
Financial and insurance		,	,				,
activities	478	704	1,182	239	352	591	1,773
Real estate	327	510	837	817	1,275	2,092	2,929
Public Administration	289	412	701	232	329	561	1,262
Education; Human health & Social Work Activities	2,679	4,010	6,689	2,143	3,208	5,351	12,040
Arts, entertainment and							
recreation	963	1,409	2,372	771	1,127	1,898	4,270
Repair of computers and							
noods	3 230	4 724	7 954	2 584	3 780	6 363	14 317
Other Services	1 530	2 2 2 8	3 768	1 22/	1 700	3 01/	6 782
Total Demand	15 650	2,200	30,700	21 022	33 372	55 301	04 561
Total Supply	7 661	20,00Z	17.976	14 220	10 107	22,301	51 214
Total Skill Gan	7,001	13 387	21 38/	7 598	14 265	21 863	43 247
	1,331	10,007	21,004	1,000	14,200	21,003	40,247

4.2. 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 varies across the district. Technical skills, lack of soft skills, aspirations, migration patterns and access to financial institutions emerge has key impediments in the employment of youth. However, it also emerges that there opportunities for the youth, especially in sectors like manufacturing, food processing, tourism and trade among others.

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

Industry engagements:

Training centres and institutions need to tie-up with local industries, understand the requirement in the sectors, and accordingly develop the curriculum. In addition, industry visits and hand-on training 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 and regular workshops.

The institutions can tie up with the big industries in the district and collaborate with their CSR division and schedule meaningful trainings for the target group. The corporate officials can conduct entreprenuership and soft skills trainings for the target group.

Most of the recruitmentin the industries are conducted through manpower hiring agencies. For these contract workers who are not hired directly, employers can take stock of contract workers as well in their audits and create a supportive environment for them as well.

Workshops can be organized between the training service providers operating in Cuddalore 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.

In order to encourage women to work in technical job roles, employers need incentives to create the appropriate working environment transport facilities, medical leave, creche system for women workers of all levels, and appropriate benefits and pay to retain workers.

Creating Awareness and conducting counselling sessions:

Community engagement through college student volunteers can play an instrumental role in generating awareness in both rural and urban clusters of the district. Awareness camps generation regarding various important government schemes and programmes as well as social issues can be organized by these college student volunteers. There is requirement felt for life skills among the youth. This should be given 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:

In order to bridge the gap between vocational training programs and industry, apprenticeship scheme must be popularized further, and priority given to local firms, so that they are able to recruit locally. This will help the small-scale industries to train and employ required workforce.

Government assistance:

Government-support in terms of wage subsidies or stipends would also allow small firms to recruit locally and strengthen the skills ecosystem. Fostering such linkages would help both manufacturers and services providers (retail, telecommunications, healthcare, tourism and hospitality), along with vocational training institutions.

Development of a Quality Labour Force:

Migrant Support Centres can be set up, which help the migrant workers with accommodation, workplace related challenges, and up-skilling/ re-skilling. Wage Subsidies/ provisions for living wage can be designed, so that the current workforce is able to work on the shop-floor without major attrition issues.

4.3. District Action Plan

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

Table 20 Summary of Trainings

S. No	Sector	Trades	Target (Persons)	Budget
1.	Paints &	Liquid Paint Processing Operator	3,000	5.41 Crores
	Coatings	Supervisor		
	Sector	Operator		
		 Paint Filling & Packing operator 		
		Paint QC Chemist (RM and FG)		
2.	Food	Packaging Technician	4,100	5.67 Crores
	Processing	Industrial Production Worker Food Processing		
		Quality Assurance Manager /		
		 Feed Analytical Technical Assistant 		
		 Traditional Snack and Savory Maker 		
		Cold Storage Technician		
3.	Tourism &	Food & Beverage Steward	3,780	5.64 Crores
	Hospitality	Housekeeping Attendant		
		Chef		
		Billing Executive		
		Facility Supervisor		
		Order Taker-Home Delivery		
		Tour escort and Driver		-
4.	Cashew nut	Boiler Operator	1,800	2.29 Crores
	and oil	Packaging technician		
	processing	De-Shelling machine technician		
_		Finance & Marketing		
5.	Construction	• Draughtsman	6,400	18.78
		Construction Fitter		Crores
		Fabricator		
		Construction Welder		
		Helper Electrician		
-		Foreman Electrical Works (Construction)	0 700	4 47 0
б.	Banking,	Life Insurance Agent	2,700	1.47 Crores
	Financial	Accounts Executive (Recording, Reporting)		
		Goods & Services Tax (GST)		
	Insulance	Accounts Assistant		
7	Dhumbing	Mutual Fund Agent	0.400	0.4.0
7.	Flumbing,	Plumber (General)	3,400	6.1 Crores
	Electronics and	Solar Domestic Water Heater Technician		
	TIAIUWAIE	Field Technician AC Field Technician Define t		
		Field Lechnician Refrigerator		
		Field Technician - Washing Machine		
		Field Lechnician - Other Home Appliances	05 400	45.0
		lotal	25,180	45.3 crores

Note:

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

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

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

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

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

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

The Cost of training in the project shelves represents the calculation of: (training target \times training hours \times per hour cost) + (training target \times number of days of training \times 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 x 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 21 Training Project 1- Paints and coatings sector

Name of the Project: Training in Paints & Coatings Sector

Key Economic Drivers:

Major sector in the district (chemicals, fertilizer and nitrogen compounds, plastics and synthetic rubber in primary forms)- Contributes to 12% of the GVA

SIDCO at Semmandalam & SIPCOT Industrial Complex at Kudikadu, major estate housing more than 10 large scale units; e.g.- Tanfac, Asian Paints, Clarient Chemicals

One of the aspired sectors of the youth.

Key Partners: SIDCO-Cuddalore, Polytechnic colleges, ITIs

Job Roles:	NSQF Level	NSQF Code	Duration of Training (hours)	Cost Category	Target Group	Training Target (People)	Cost of Training (training + transportation) in crores
Liquid Paint Processing Operator	4	PCS/Q0510	416 hours	2	10th Class Pass	500	0.86 Crores
Supervisor	5	PCS/Q5001	240 hours	2	5th class Pass	1,500	

Table 22 Training Project 2-Food Processing Sector

Name of the Project: Training in Food Processing sector

Key Economic Drivers:

Expected growth and investment potential in Food processing Sector

Potential investment is expected - Cuddalore Mega Food Park Project as per the TN GIM is proposed to be set up in the district

Export promotion zone for Cashew Nut in the district- Major Cashew nut production (Panruti, Vriddhaclam and Neyveli) Food processing amongst top 3 sectors aspired by youth as per primary survey

Manufacture of beverages contribute to 14% of GVA

One of the aspired sectors of the youth.

Key Partners: APEDA (Agricultural and Processed Food Products Export Development Authority), ITIs, Cuddalore Cashew Nut Oil processing Association

Job Roles:	NSQF Level	NSQF Code	Duration of Training (hours)	Cost Category	Target Group	Training Target (People)	Cost of Training (crores)
Food Products Packaging Technician	5	FIC/Q7001	240 hours	1	12th Class Pass	1000	1.32 Crores
Industrial Production Worker Food Processing	2	FIC/Q9005	240 hours	1	5th class Pass	1000	1.32 Crores
Quality Assurance Manager	6	FIC/Q7602	240 hours*	1	M.Sc.	500	0.66 Crores
Traditional Snack and Savory Maker	4	FIC/Q8501	240 hours	1	8th Class Pass	1000	1.32 Crores
Cold Storage Technician	4	FIC/Q7004	250 hours	3	12th Class , Preferably/ Diploma /ITI with certification in refrigeration	600	0.65 Crores
Total training cost							5.26 Crores
Total Assessment and Certification cost (1,000 per candidate)							0.41 crores
Total cost							5.67 Crores

Key Considerations:

This sector is most suited to absorb workers shifting out of agriculture. It is also a favorable Industry for the employment of women.

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

Table 23 Training Project 3-Tourism and Hospitality

Name of the Project: Training for Tourism and Hospitality Sector													
Key Economic	Drivers:												
Tourism is the most prominent sub sector, contributing to 24% of the service sector													
Number of tourist places in Cuddalore- temples, Pichavaram mangrove forest													
Pondicherr	y is just 20k	m high demar	d; Tourism is the n	najor economic d	rive in Puducherry								
Key Partners:	Key Partners: 111, Tourism and Hospitality Skill Council, Tourism Department												
Job Roles	NSQF Level	NSQF Code	Duration of Training (hours)	Cost Category	Target Group	Training Target (People)	Cost of Training (crores)						
Food & Beverage Service - Steward	4	THC/Q0301	300 hours	2	Class 10 th pass	600	0.88 Crores						
Housekeeping Attendant (Manual Cleaning)	3	THC/Q0203	250 hours	2	Primary education	600	0.74 Crores						
Chef-de-partie	6	THC/Q0404	285 hours	1	Class 8 th pass	600	0.94 Crores						
Billing Executive	4	THC/Q5801	300 hours*	2	Graduate	480	0.71 Crores						
Facility Supervisor	5	THC/Q5709	300 hours*	2	ITI	400	0.59 Crores						
Tour vehicle Driver	4	THC/Q4202	240 hours*	2	Driving license & Class 8 th pass	300	0.35 Crores						
Assistant Catering Manager	6	THC/Q5901	300 hours*	3	Class 12 th pass	200	0.26 Crores						
Front Office Associate	4	THC/Q0102	280 hours	3	Class 12 th pass	300	0.36 Crores						
Guest Relations Manager	6	THC/Q0108	300 hours*	2	Class 12 th pass	300	0.44 Crores						
		·			Total training cost	3,780	5.26 Crores						
		Total Ass	sessment and Certi	fication cost (1,	,000 per candidate)		0.38 Crores						
					Total cost		5.64						
Kay Consider	tiona						Crores						
Tourism is the	e most prom	inent sub sector	, contributing to 24	% of the service	sector	Key Considerations: Tourism is the most prominent sub sector, contributing to 24% of the service sector							

Number of tourist places in Cuddalore- temples, Pichavaram mangrove forest Pondicherry is just 20km high demand; Tourism is the major economic drive in Puducherry Woman and youth can be easily employed in this sector

Woman and youth can be easily employed in this sector *-Job roles do not have training hours mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours. In some cases, insights from consultations with stakeholders are also considered.

Table 24 Training Project 4- Cashew nut and oil processing sector

Name of the	Name of the Project: Training for Cashew nut and oil processing sector									
Key Economic Drivers:										
Cuddalore is largest producer and exporter of cashew nut in Tamil Nadu.										
Cashew	Cashew kernels processed from the AEZ are exported to the countries like USA, Dubai, Saudi Arabia, Syria and									
Singapor	re as deer	ned export sales	5. Decessors and Exported	ra Accaciation C			tion			
APEDA (Agric	cultural and	d Processed Fo	od Products Export De	evelopment Author	ority). Sattva Ltd.	Icturing Associa	auon,			
Job	NSQF	NSQF Code	Duration of	Cost Category	Target	Training Target	Cost of Training			
Roles	Level	Code	fraining (nours)	Category	Group	(People)	(crores)			
Boiler Operator	-	To be developed ²²	240 hours	2	-	150	0.18 Crores			
Packaging technician	5	FIC/Q7001	240 hours	2	12th Class Pass	500	0.59 Crores			
De- Shelling machine technician	-	To be developed	240 hours	2	-	1000	1.17 Crores			
Finance & Marketing	-	To be developed	240 hours	2	-	150	0.18 Crores			
Total training cost 1,80							2.11 crores			
Total Assessment and Certification cost (1,000 per candidate)						₹ 0.18 crores				
Total cos							₹2.29 Crores			

Key Considerations:

Any cashew project development in the area can get assistance from APEDA (Agricultural and Processed Food Products Export Development Authority) besides assistance from ASIDE (Assistance to States for Development of Export Infrastructure and other activities) for development of infrastructure facilities.

A common state-of-the-art processing and packaging unit in Panruti spread across about two acres through the special purpose vehicle (SPV) has been developed in the cashew AEZ to promote cashew exports.

Adopting proven management technologies along with planting of grafts of high yielding varieties, the production and productivity of cashew can be enhanced, thereby boosting the cottage and export-oriented units through AEZ in Panruti with the scope of attaining self-sufficiency in the near future.

Using new machinery, usage of solar drying and improved processing techniques will boost the growth.

A training centre to educate workers on cashew processing techniques, personal hygiene and sanitation, etc. can be established

Establish facilities for production of by-products such as Cashew Nut Shell Liquid (CNSL), a stream of exportable derivative chemicals from CNSL and bio-fuel briquettes from cashew husk and shell

Model cashew demonstration farms can be designed to train the farmers to take up best practices.

²² To be developed QPNOS- The QP is yet to be developed. The Duration, Cost category for these job-roles is derived here basis the other similar QP available for this sector

Table 25 Training Project 5- Construction Sector

Name of the Project: Training for Construction sector									
Key Economic Drivers:									
Construction is one the driving sectors in the economic growth of the district, 13% employment in construction as									
per District Level Estimates, 2013-14									
The sector	contribu	tes to 26% of th	ne industrial sect	or					
Constructi	on will lay	y a vital role for	the Investment p	proposed in th	he district- mage fo	ood park,			
One of the	aspired	sectors during y	outh aspiration	study					
Key Partners:	Constru	uction sector co	uncil, ITI, Polyte	chnic					
Job Roles	NSQF Level	NSQF Code	Duration of Training (hours)	Cost Category	Target Group	Training Target (People)	Cost of Training (crores)		
Draughtsman	4	CON/Q1301	600 hours*	1	ITI/ Diploma in Civil	1,200	3.96 Crores		
Construction	3	CON/Q1205	350 hours*	1	Class 10 th	1.500	2.89 Crores		
Fitter	Ū	001001200			pass	.,			
Quality	6	CON/Q0403	516 hours	1	Class 12 th pas	600	1.71 Crores		
Technician									
Fabricator	4	CON/Q1206	600 hours	1	Class 12 th	500	1.65 Crores		
					pass				
Construction	1	CON/01252	600 hours*	1	Class 10 th	1000	3 3 Crores		
Welder	-	0011/01232	000 110013	· ·		1000	0.0 010163		
VVEIGEI					pass				
Helper	2	CON/Q0601	350 hours	1	10 th pass	600	1.16 Crores		
Electrician									
<u> </u>		0.011/0.000			0 1 (0 th				
Construction	4	CON/Q0603	636 hours	1	Class 10 ^m	1000	3.5 Crores		
Electrician -					pass				
LV									
					Iotal	6,400	18.13		
							Crores		
	То	tal Assessment	and Certification	n cost(1,00	00 per candidate)		0.64 crores		
	Total cost 18.78								
							Crores		

Key Considerations:

Tie up with upcoming investment sites to understand the need of manpower in construction sector Focus on ITI graduates and diploma graduates Trainings can be accompanied by stipends

Trainings can focus on sustainable practices

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

Table 26 Training Project 6- Banking, Financial Services and Insurance Sector

Name of the Project: Training in Banking, Financial Services and Insurance sector

Key Economic Drivers:

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
- Skilled labour force requirement in the sector as per skill gap estimation projection
- One of the aspired sectors during youth aspiration study

High demand of GST Assistants in the industries

Rey Partners	Rey Partners. Broi 550, III							
Job Roles	NSQF Level	NSQF Code	Duration of Training (hours)	Cost Category	Target Group	Training Target (People)	Cost of Training (crores)	
Marketing and Social Media manager	4	ASC/Q1110 (Derived QP from Automotive sector)	100 hours*	2	Diploma/ Graduation	500	0.25 Crores	
GST Accounts Assistant	4	BSC/Q0910	100 hours	3	Graduation: commerce or allied subject	400	0.18 Crores	
Mutual Fund Agent	4	BSC/Q3802	100 hours*	3	Class 12th pass	450	0.2 Crores	
Life Insurance Agent	4	BSC/Q3801	100 hours*	3	Class 12th pass	900	0.39 Crores	
Accounts Executive (Recording, Reporting)	4	BSC/Q1001	100 hours	3	Graduate in Commerce	450	0.2 Crores	
Total training cost							Crores	
Total Assessment and Certification cost (1,000 per candidate)							0.27 crores	
Total cost								

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.

Skilled labour force requirement in the sector as per skill-gap estimation projection. Healthcare insurance sector in high demand due to the healthcare sector being a leading service sector in Vellore. High demand of GST Assistants in the industries due to its complex nature. Graduates can be our target training group.

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

Table 27 Training Project 7- Plumbing, Electronics and Hardware Sector

Name of the Project: Training in Plumbing, Electronics and Hardware sector

Key Economic Drivers:

Urbanization will lead to increase consumption ad purchase of domestic appliances. This will lead to growth in Repair sector of domestic appliances and computers

Key Partners	Key Partners: ITI						
Job Roles	NSQF Level	NSQF Code	Duration of Training (hours)	Cost Category	Target Group	Training Target (People)	Cost of Training (crores)
Plumber (General)	3	PSC/Q0104	410 hours	1	10 th pass	600	1.36 Crores
Field Technician AC	4	ELE/Q3102	300 hours	2	8th Class+ 2 yrs	1000	1.47 Crores
Field Technician Refrigerator	4	ELE/Q3103	300 hours	2	8th Class+ 2 yrs	400	0.59 Crores
Field Technician - Washing Machine	4	ELE/Q3106	300 hours	2	8th Class+ 2 yrs	400	0.59 Crores
Field Technician - Other Home Appliances	4	ELE/Q3104	360 hours	2	8 th pass	1000	1.76 Crores
Total training cost 3,400 5.76							
	Total Assessment and Certification cost (1,000 per candidate) 0.34						
	Total cost ₹6.1Crores						
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.

Appendix

A.1 Methodology for Block Selection for Youth Aspiration survey

Sampling Design for Youth Survey

A total of 360 youth was surveyed in the district, which included youth in both self-employment and wageemployment, 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 was interviewed.

2. Household Level Survey:

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

3. Self – Employed Youth:

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

4. Employed in the informal sector:

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

Selection of Block

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

To categorize blocks, the following data points were used.

- Count of MSME Clusters (based on DC-MSME Report)
- Number of SIDCO Industrial Estates
- Number of SIPCOT Industrial Estates
- Credit Outstanding, 2017-18 at Centre-level (Annual Data published by the Reserve Bank of India)

The following weights were assigned post award of marks:

- MSME Cluster 25%
- SIDCO Cluster 25%
- SIPCOT Industrial Estate 5%
- Annual Centre-level Credit Data 45%



Based on the above weights, the total score of each block was calculated. The total score was capped at 100. To classify the block as High/Medium/Low, the total score was converted into percentile values and categorized

into three groups 0-33.33th percentile values, 33.33 to 66.67 percentile value and 66.67 to 100 percentile values. The percentile values are calculated with respect to each district as the base. Based on the percentile classification obtained, blocks were classified as follows:

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

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

Based on this, the following blocks were selected in Cuddalore-

High-Cuddalore, Virddhachalam, Medium- Kattumannarkoil, Keerapalayam Low- Nallur, Komaratchi

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:



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 state²³. 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:





²³ Report on Employment-Unemployment Survey, 2011-12, 2012-13, 2013-14, 2015-16 & 2017-18.

A.3 List of Stakeholders Consulted 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	District Employment Officer	Govt official
5	District Rice Mill	Govt official
6	Assistant Director, District Fisheries Department	Govt. official
7	Micro Small Industries Association SIDCO Semmandalam	
8		Industry Association
9. 9	SIPCOT Industry Association, Kudikadu	Industry Association
10	SIDCO Vadalur	Industry Association
11	Ceramics Refractory Owners Association Vridbachalam	Industry Association
12	Tamil Nadu Cashew Processors and Exporters Association	Industry Association
13	Cashew Oil manufacturing Association Panruti	Industry Association
14	Cuddalore coconut and Yarn manufacturers Association	Industry Association
15	Association Ceramics and Clay	Industry Association
16	Mabalakshmi Polytechnic college	Training Service Provider
17	Gove ITL Principal and Deputy Director	Training Service Provider
18	Sarawati Private ITI	Training Service Provider
10.	Abirami Ceramics	
20		
20.	Anna Food Products	
21.	Are Industries	
22.	Aruliothi Industrios	
23.	B C Coromics	
24.	Pabu Pototoch Dyt Ltd	
20.		
20.	Cidywales Enfield Coromice	
21.	Canach Caramics And Pofractorias	
20.	Gabi Coramica	
29.		
30. 21		
22	K Tophoromics	
32.	Kn Toch Coromics	
33. 24	NP Tech Ceramics	
34. 25	Laksiiiii industries	
- 30. - 26	Noveli Wirepotting Industrial	
30. 27	Nicho Disetion	
37.	NISHA Plastics	Industry
30. 20	Preman Engineering Ca	Industry
39.	Ragneed industries	Industry
40.	Raj Ceramics	Industry
41.	Raja Enterprises	Industry
42.	RONINI FIYARO BRICK WORKS	Industry
43.	S M R Plastics	Industry
44.	Sasikumar Waste Plastic Grainding	Industry
45.	Selvaganapathy Industries	Industry
46.	Shanmugam Zircons	Industry
47.	Sri Ceramics	Industry
48.	Sri Cotton Industries	Industry
49.	Sri Kamaraj Industries	Industry
50.	Sri Kandeswara Ceramic	Industry
51.	Sri Ram Ceramics	Industry
52.	Srs Cars Pvt Ltd-Vbsrs Hyundai	Industry
53.	Steel Cut Tools Industries	Industry
54.	I rack Weld Engineering Works	Industry
55.	Jtr Digital Printing	Industry

S.No	Stakeholder	Category
56.	Sri Ashok Petro Products	Industry
57.	Nr Industries	Industry
58.	Kkr Ceramics	Industry
59.	Sri Hari Sakthi Engineering Workshop	Industry
60.	Csr Ceramics	Industry
61.	Amcor India Pvt. Ltd.	Industry
62.	Hemalathaa Hi-Tech Industries	Industry
63.	Annai Velankanni Metal Industries	Industry