

NPCIL CSR Skill Development Project

DRAFT FINAL REPORT

Prepared for:	NSDC
Prepared by:	Ank Aha Private Limited
Date:	17-07-2018



Table of Contents

1. PROJECT BACKGROUND	3
1.1 Scope of Work	3
2. APPROACH AND METHODOLOGY ADOPTED	5
2.1 Baseline Survey.....	6
2.2 Focus Group Discussions	7
2.3 Semi-Structured Interviews	9
3. GENERAL FINDINGS.....	9
3.1 Overview of Target Area: Profile of Community	9
3.1.1 Demographic Indicators	10
3.1.2 Health	11
3.1.3 Development Indices: Comparing the Blocks.....	12
3.2 Profiling Economy: Economic Activity and Market Linkages.....	12
4. KEY FINDINGS	14
4.1 Understanding Perceptions	14
4.1.1 Quantitative Insights.....	16
4.2 Gauging Aspirations	18
4.3 Scoping Demand	21
5. ANNEXURES.....	25
5.1 Pilot Survey Findings	25
5.2 Sample Selection	25
5.3 Baseline Survey Questionnaire	27
5.2 FGD Questionnaire.....	31

1. PROJECT BACKGROUND

A project has been signed between NSDC, NSDF, and Nuclear Power Corporation of India Limited – Kudankulam Nuclear Power Project to train 500 beneficiaries in trades identified through a baseline survey in order to promote skill development in the region. The objective is to channelize funds from corporate partners of NSDC towards skilling of youth in the 19 villages that fall within a radius of 16 kms of the Kudankulam Nuclear Power Plant (KKNPP), to help them become more employable. The purpose of this report is to support this project by identifying key trades in which the 500 beneficiaries may be skilled. These trades are to be derived from the interests and aspirations of the beneficiaries and the demand by the economic setup of Kudankulam and its surrounding area.

Skill development has been chosen as a focus area in this CSR project in line with Prime Minister Narendra Modi's campaign of Skill India. Launched on 15th July 2015, this campaign aims to train over 40 crore people in India in different skills by 2022. The two goals of Skill India are, first, to meet employers' need of skills and, second, to provide better livelihood opportunities to workers. This report encapsulates the necessary insights to meet both these goals in the target location.

NPCIL – KKNPP also wishes to instil an overall sense of economic security and stability in the surrounding region. The enhanced access to industry jobs made possible by skill training has been chosen as the path to ensure the onset of economic security and stability. The major industry in the target location is the Nuclear Power Plant, which has requirement in mechanical, electrical and plumbing work roles. Additional requirement will also be generated due to expansion plans that were made in 2016 and 2017. These plans include the construction of two more reactors, to add to the two already in operation.

Self-employment and entrepreneurship are equally important in improving economic conditions. Though unirrigated agriculture is the main activity in the Radhapuram taluk where KKNPP is situated, there are a few small-scale industries engaged in bidi rolling and fisheries. An understanding of opportunities in these activities, vis-à-vis market linkages, skilled manpower deficits, etc. is required and will be addressed by the proposed methodology.

1.1 Scope of Work

The scope of work will include the following:

1. Preliminary assessment of target area (19 villages spread across 16 kms from the Kudankulam Nuclear Power Plant) to gain understanding of demographics, socio –

economic conditions, major industries, and other relevant indicators. This assessment will be based on secondary research and corroborated by primary data collection.

2. Development of the methodology for the study: This will include a methodology for estimating both the demand and supply of skills.
3. Demand and supply assessments: This requires primary research which will involve the design of survey questionnaires, training manuals, discussion guides and sampling methodology.

Research Methods	Stakeholders Targeted	Strategies
Surveys (Supply-Side)	Economically Active (working age) Population: 18-35 years located at households.	Devise detailed questionnaire with responses in binary options/ multiple choices. Map out expectations, aspirations and employability.
Semi- Structured Interviews (Demand Side)	(i) Local administration and government officials (Sub-Divisional Magistrate Office, Block Development Offices) (ii) Large Industries (KKNPP Officials)	Design pointed questions of an open-ended nature to understand economic activity in the region, opportunities for employment and existing market conditions for skills and job roles.
Focus Group Discussions (Supply-Side)	(i) Invited participants of all ages and backgrounds from Villages/ Clusters of Villages. (ii) MSME Owners	(i) Coordinate with local administration officials such as the Village Administrator or Revenue Inspector to invite community leaders, politically active citizens and members of the general public for discussing a pre- defined set of issues. (ii) Design a set of discussion points to lead the conversation with owners of enterprises to map out their skill demands and wage offerings.

4. The agency should regularly interact with NSDC and NPCIL to discuss / present the framework for the study and findings, and incorporate feedback/suggestions from time to time.
5. Preparation of draft report incorporating an overview of the framework and methodology of the study, details on the data sources, and findings of the primary and secondary research.

6. Validate the findings and recommendations with key stakeholders and finalize the report; main deliverable encapsulated within the final report will be key trades with high employment potential in target area.

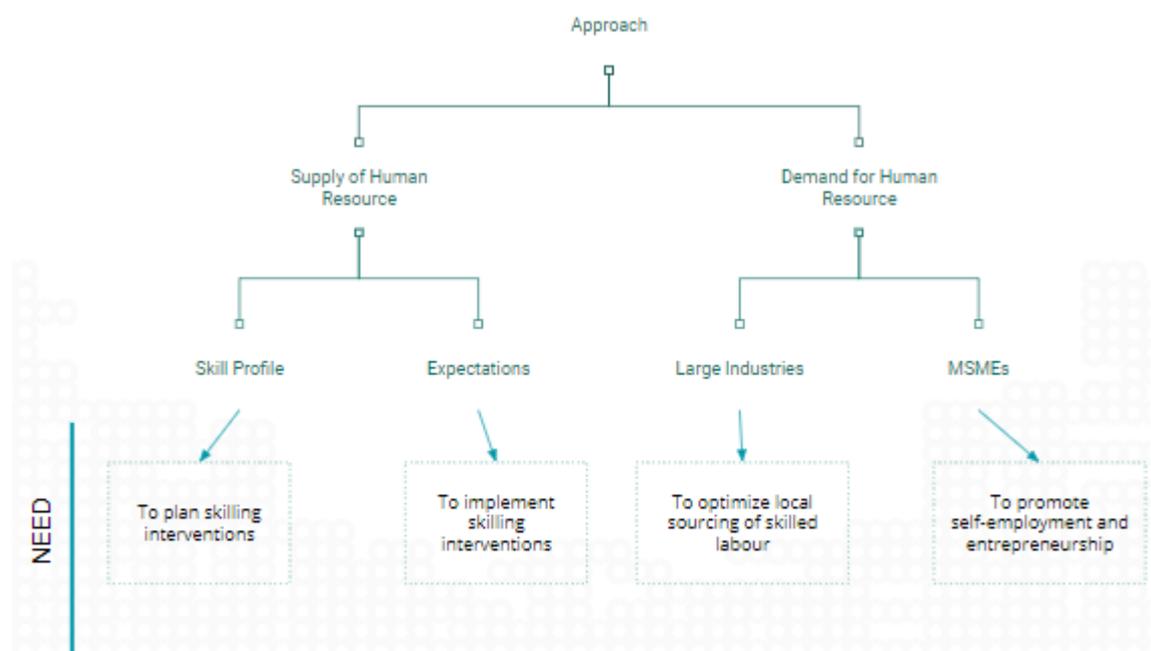
2. APPROACH AND METHODOLOGY ADOPTED

The study employs qualitative methods of social sciences research supplemented by quantitative analysis of the data. In order to achieve the clearest picture on the ground, the team first conducted secondary data collection and research before going on the field, to gain an understanding of what to expect from the region. The identified villages all fall in the Radhapuram Taluk, under the two blocks of Valliyur and Radhapuram. Therefore, assessing the general features of the taluk imparted a birds' eye view of the economic activity, market linkages, supply chains and labour demand of the target villages. The strategy to collect secondary data from block-level officials to paint the big picture helped in situating the village panchayats as micro-units that function within the union with mutual linkages.

Once the secondary data was collected and evaluated, the team from Ank Aha visited the field for a duration of 3 weeks. In this period, primary data collection tools such as surveys, Focus Group Discussions (FGDs) and interviews were deployed in order to capture qualitative data from the field. Probability Proportional to Size (PPS) sampling strategy was adopted and through two stages of sampling, the villages to be sampled were selected. Consequently, the distribution of households to be sampled were also estimated and maintained at the same level and interval in order to ensure stability of the model.

To reiterate, the villages and the households that were sampled were decided purely by the randomised probability model and not through researcher influence to ensure a representative sample. In order to further eliminate bias, volunteers for the survey were sourced from the TDMNS College in Kallikulam, from the Third Year BA Economics Discipline. 10 female and 5 male students were chosen for the purpose.

The macro view of the approach is presented below:



The tools used under this approach are detailed in the following sub-sections.

2.1 Baseline Survey

The baseline survey forms a crucial part of the entire study. It helps establish an *as-is* scenario of the target area in terms of employment scenario, sectoral make-up, aspirations of the target population, expectations from employment, and perception towards skilling. The objective of this survey is three-fold:

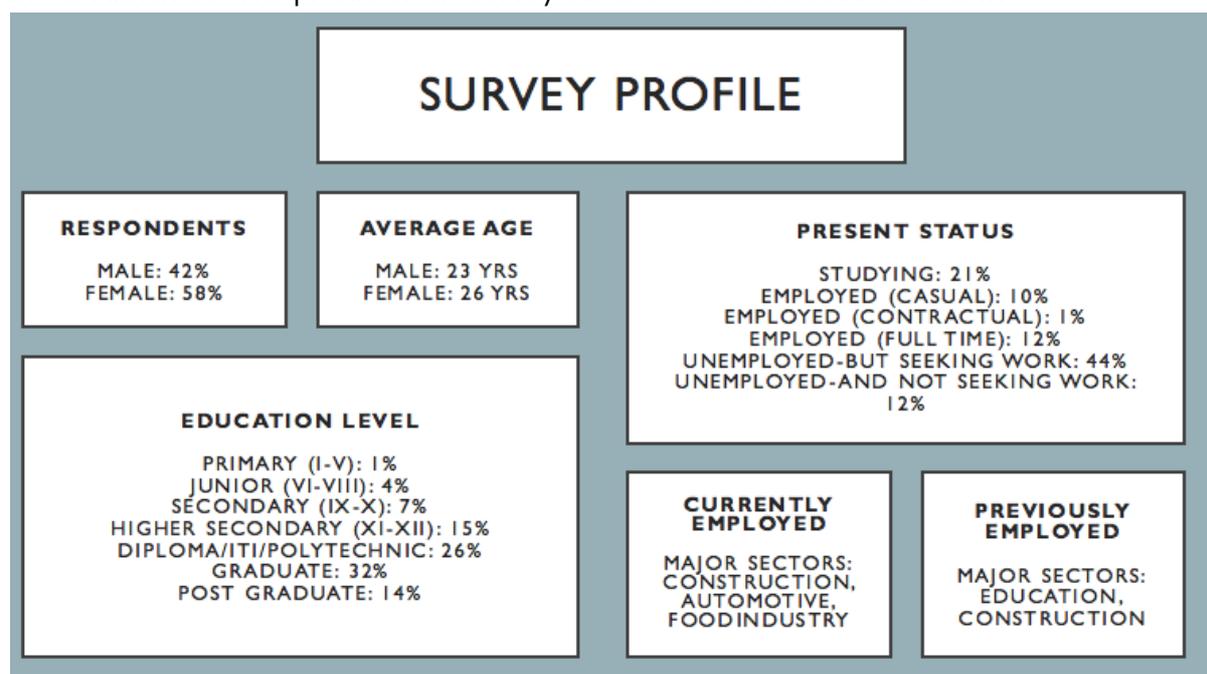
1. To collect information on the career aspirations held by persons in the age group of 18-35 years.
2. To understand the popular perception/awareness towards skill development.
3. To assess the current status of employment/unemployment amongst the target population.

Household level was selected as the mode of administration for the baseline survey. The reason for this is that household surveys are among the most flexible methods of data collection. In theory almost any population-based subject can be investigated through household surveys.

The sample size for the baseline survey was determined at 95% confidence level and 5% confidence interval. The sample size calculated under these parameters resulted to be 383. Accounting for a certain percent of incomplete surveys, 400 surveys were conducted. Prior to the actual survey, a pilot was conducted in the following villages; Vijayapathi, Parameswarapuram, Errukkundurai, and Thiruvambalapuram. 31 surveys were conducted under the pilot. Inputs from the pilot were used to make changes to the final survey. The findings of the pilot survey are encapsulated in the Annexure.

The sample size of 383 was constructed through the Probability Proportional to Size (PPS) methodology. In this, the Primary Sampling Unit was the village and Secondary Sampling Unit was the household. The underlying idea of the PPS method, and any probability method for that matter, is that every unit should have an equal probability of selection. So each household across the target area must have an equal probability of getting selected. In the first stage of selection in PPS, villages with a higher number of households will have a higher chance of getting selected and vice versa. But this is countered in the second stage, where a household in a village with a higher number of households will have a lesser chance of getting selected when compared to a household in a village with a lower number of households.

Using this method, the final eight villages selected for the baseline survey are; Avaraikulam, Pazhavor, Adangarkulam, Levenjipuram, Chettikulam, Kudankulam, Radhapuram, and Vadakkankulam. The exact process which lead to the selection of these villages in presented in the Annexure. The profile of the survey carried out is consolidated below.



2.2 Focus Group Discussions

Focus Group Discussions (FGDs) are often an instrument employed to corroborate the findings of a survey or data from discrete interviews. FGDs have the advantage of bringing together stakeholders that form a part of the target demographic, as well as other participants such as government officials and community heads. Therefore, FGDs become useful forums where different views are aired and debated and the discourse around the topic is shaped. For this precise reason, FGDs have been used in order to understand multiplicity of views that exist as well as to elucidate the sentiments around skilling in the

selected villages of Radhapuram Taluk. This served as one of the tools for unpacking the supply side of the skilling scenario in the area.

In order to map the attitudes towards skill development and employment in the target area, and to gauge the challenges and roadblocks faced in upskilling of the youth, focus groups were formed at village level and selected participants were invited. Working with the local government functionaries to invite relevant participants who would bring value to the discussion proved beneficial. The criteria used to invite discussants were manifold: they were active citizens who had shown initiative and interest in matters affecting the community in the past, and represented a cross-section of the demographic, cutting through lines of religion, age, gender and education and employment. The intended beneficiaries are members of closely linked communities and hence, FGDs proved to be a successful tool in extracting a broad, macro view of the village panchayats that we sought to impact.

The objective of conducting the FGDs centred mainly on understanding the skilling and vocational training scenario in the villages, as seen through the eyes of the villagers themselves. To this end, a loose set of discussion topics were arrived at, with three probing questions, four follow-up questions and one exit question. Sensitive issues were avoided and the moderator ensured that the participants do not criticize one another or that an ugly debate was not initiated between the invitees and the organisers (from the government). The probes were directed at profiling the skilling/ vocational training scenario in the villages. The migration patterns in the villages were also discussed along with the status of economic activity and livelihood attainment. The concluding remarks threw open the floor of discussion to the invitees, where they were encouraged to express their opinions on what strategies would suit their village best with regards to skill development. While often younger participants and female participants in general were reserved about revealing their thoughts, they expressed their ideas and contributed to the discussion when prodded.

The outcomes matched the expectations out of such a venture; this forum acted as a safe space for a healthy exchange of ideas between various groups of people who all have significant gains to achieve out of a skilling intervention. Mixing the worldliness of the village elder and the aspirations of a graduate rendered a wholesome picture of the demands of the community as well as their strengths. While it is possible to generalise that the selected villages as a singular unit exhibit many commonalities and follow similar trends, differences have to be acknowledged and acted upon. Thus, through this strategy, it was derived that villages accord varying priorities to for instance, agriculture, the erstwhile major vocation in the region. Such insights and outcomes are discussed in greater detail in the section on key findings of the study.

2.3 Semi-Structured Interviews

One of the first techniques used in qualitative data collection is that of the interview. In order to allow room for flexibility and reduce the risks associated with a rigid framework, semi-structured interviews were deployed through the duration of the study predominantly to discern the demand side of the skilling scenario in Radhapuram taluk. The various stakeholders thus interviewed involve the officials in the Sub Divisional Magistrate's Office at Cheranmahadevi, under whose administration the targeted taluk falls, the Block Development Officials at the Radhapuram and Valliyur Blocks, and the contractors that supply labour to the large industries in the region, predominantly the KKNPP. These stakeholders were selected to reflect their respective roles in employment generation as well as policymaking, thus acknowledging the close ties between the government and the labour market.

The strategy adopted in semi-structured interviews was to administer a certain set of carefully- worded, open-ended questions that allowed room for interpretation. Some interviews snowballed into the next, where the interviewer was able to draw on the observations from the previous interviewee and touch upon granular detail in the next interview. This proved useful while moving from a macro perspective to a micro one, thereby rarefying the surveys. Questions related to the physical and social infrastructure, as well as the economic profile of the sub-division/ block were asked in order to derive key observations that eventually informed the sampling strategy.

Many surprising observations were made during the course of such interviews; for instance, it was revealed that the state of Tamil Nadu no longer faces load-shedding or power cuts, despite providing first 100 units of electricity (for two months) for free to every household thanks to the surplus generated by wind and nuclear energy, and that all the households in the Cheranmahadevi subdivision are electrified. This was an important piece of information as it has bearing on the popular perceptions surrounding the KKNPP. Therefore, such knowledge was gathered indirectly through these semi- structured interviews, designed to bring out unexpected nuances from the interviewees for the larger benefit of the study itself.

3. GENERAL FINDINGS

This section details the general findings of the study.

3.1 Overview of Target Area: Profile of Community

The 19 target villages fall under the administrative ambit of the Radhapuram and Valliyur blocks, which together make up the Radhapuram Taluk. This taluk is a part of the Cheranmahadevi sub-division located in the district of Tirunelveli, in southern Tamil Nadu.

Radhapuram Block	Valliyur Block
Kudankulam	Erukkandurai
Udayathur	Levenjipuram
Kuthenkuzhi	Vadakkankulam
Parameswarapuram	Dhanakkarkulam
Vijayapathy (Coastal)	Chidambarapuram Yacopuram
Radhapuram	Chettikulam
K. Navalady	Avaraikulam
Thiruvambalapuram	T. Karunkulam
Chidambarapuram	Adangarkulam
	Pazhavur

3.1.1 Demographic Indicators¹

On the whole, both the blocks exhibit similar trends in terms of population characteristics. The gender distribution of the blocks stand favourably to women at 51% of the population identifying as female and 49% as male. However, this advantage does not translate to literacy outcomes; in both the blocks, the literacy rate among males is far higher than that of females. The Valliyur block has a much higher population density as well. The exact figures are broken down as follows:

Profile of Target

	Rankings	Demographic Profile	Economic Profile
Valliyur	HDI: 3/19 GII: 1/19 CDI: 5/19 MDPI: 3/19	Population: 1,58,047 Sex Ratio: 1023 Literacy Rate: 78.91 % SC population: 14.39 % ST Population: 0.47 %	Agriculture (paddy and floriculture) Dry Fish Processing Wind Mills
Radhapuram	HDI: 9/19 GII: 17/19 CDI: 17/19 MDPI: 18/19	Population: 1,46,605 Sex Ratio: 1032 Literacy Rate: 78.48 % SC population: 13.36 % ST Population: 1.08 %	Horticulture Livestock (milch animals like goats and cows) Dry Fish Processing Wind Mills Mud Pots manufacture

¹ District Census Handbook 2016-17, Tirunelveli

Radhapuram:

Covering an area of 446.12 sq. km, Radhapuram block has a population of 1, 46,605 persons, of which 49% (72,154) are males and 51% (74,451) are females. The literacy rate stands at 78.48%, where 81.21% of the males and 75.85% of females are literate. The population in the block is composed of 13.36% Scheduled Castes (SC) and 1.08% Scheduled Tribes (ST). The block has a population density of 328.6 persons per sq. km.

Valliyur:

Valliyur has an area of 427.63 sq. km and a population of 1, 58,047 persons, therefore implying a population density of 369.5 persons per sq. km. Of the total population, approximately 49% (78,130) are males and 51% (79,917) are females. The literacy rate of the block is 78.91% with 82.08% male literacy and 75.81% female literacy. About 14.39% of the block's population is composed of Scheduled Castes and 0.47% of Scheduled Tribes.

Therefore, the blocks both have favourable sex ratios at 1023 females per 1000 males in Valliyur and 1032 females per 1000 males in Radhapuram. Valliyur has a higher population density among the two. Radhapuram on the other hand, has a higher concentration of STs as compared to Valliyur. According to the District Census Handbook 2016-17, the population of both the blocks are set to grow uniformly from 2011 to 2021, therefore necessitating a closer examination of other Human Development indicators such as health and education.

3.1.2 Health²

The presence of healthcare services by the government is crucial for the well-being of the population. Preliminary access to healthcare for a community is provided at the Primary Healthcare Centres (PHCs) and Sub-centres (SCs) present in the block. Accordingly, Radhapuram has 4 PHCs and 23 SCs, while Valliyur has 6 PHCs and 27 SCs in 2016-'17. This works out to be a patient burden of 36,651 persons per PHC in Radhapuram and 26,341 persons per PHC in Valliyur, roughly meeting the mandate³ of establishing one PHC per 30,000 population.

Another set of indicators that relate to the health status of the residents of the blocks are Birth Rate (BR) and Infant Mortality Rate (IMR)⁴. Valliyur has the highest BR in the among the 19 blocks of the district, at 14.1 live births per 1000 population, and Radhapuram is at fourth place with its corresponding figure at 13.6. The IMR for these blocks are relatively low as compared to the other blocks in the district with the figures at 6.1 and 8.2 deaths per 1000 live births at Radhapuram and Valliyur respectively.

² ibid

³ Ministry of Health and Family Welfare guidelines on establishment of PHCs, CHCs, SCs.

⁴ District Census Handbook 2016-17, Tirunelveli District

3.1.3 Development Indices: Comparing the Blocks

The Human Development Report jointly brought out by the Tirunelveli District Administration and the State Planning Commission, posits that the development of blocks can be assessed through their respective performances in the indices devised as a synthesis of indicators such as IMR, Maternal Mortality Rate (MMR), Gross Enrolment Ratio (GER) and enrolment rates in higher education. The report⁵ consolidates multiple such indicators for each index it measures- Human Development Index (HDI), Gender Inequality Index (GII), Child Development Index (CDI) and Multi-Dimensional Poverty Index (MDPI), and arrives at a ranking for each block, thus providing insights previously unavailable. This assists in obtaining an understanding of the intra-block variations in the district.

Accordingly, Radhapuram is ranked 9 out of 19 blocks in HDI, 17 in GII and CDI, and 18 in MDPI, signalling broadly that the block has many milestones to cover in child education and gender parity. Meanwhile, Valliyur performs better in all of the indices than Radhapuram, as it is ranked number 3 in HDI, first in GII, fifth in CDI and third in MDPI, topping in the district in most aspects. The report notes that the two blocks perform similarly poorly only in male workforce participation rate. This comparative analysis, thus contextualises the blocks in consideration better and brings out the contrasts in the field very well.

3.2 Profiling Economy: Economic Activity and Market Linkages

The field of study is the village of Kudankulam as well as 18 other villages surrounding it, within a radius of 16 kms. These villages fall under two blocks- Valliyur and Radhapuram and the Kudankulam Nuclear Power Plant (KKNPP) is situated in the Radhapuram block. This section concerns with the economic activity and industry in the considered blocks, as well as the employment opportunities that the inhabitants have.

Valliyur:

Agriculture is the main economic activity in Valliyur Block. It is marginal and seasonal, depending on favourable North Eastern monsoon, as there are no irrigation projects. The inhabitants mostly cultivate paddy and floriculture for markets in Kanyakumari. The water for this comes from their own wells. **Wind Energy Farming** is the only large-scale industry in the region. There are about 3 Wind Energy farms owned by various people from different parts of Tamil Nadu. Inhabitants of Valliyur work as casual labour in such farms (security services etc.). Some degree of **migration** is witnessed in the block; Vadakkankulam GP inhabitants have all mostly moved abroad to work as skilled labour in oil rigs. Interestingly, owing to its proximity to Nagercoil, Valliyur has a lot of quality schools and professional colleges which are run by Christian missionaries.

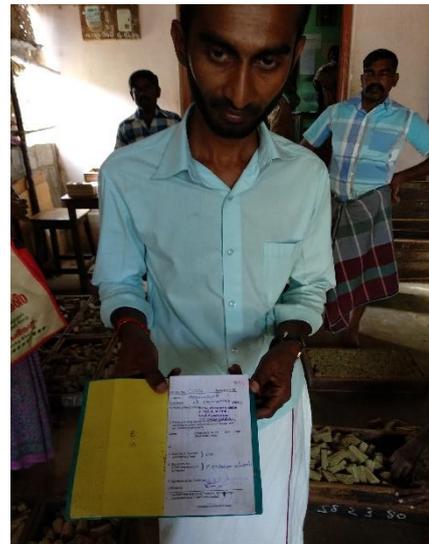
⁵ District Human Development Report- 2017, Tirunelveli District, State Planning Commission, Tamil Nadu

Small-scale industries with investments less than 10 crore are present in few numbers across the block; these are mostly fish yards, where fish from Tuticorin/ Thoothukudi are brought in, processed and powdered, turned into poultry feed and sent to farms. Situated in the coastal villages such as Erukkundur, these yards are also a source of casual labour to the local, skilled youth who are often unemployed after completing their Diploma or Graduation. North Indian casual labourers also work in these yards and the job requires virtually no skills. There are some metal ore mines which manufacture red oxide rubble for construction purposes.

Radhapuram:

Radhapuram shares similar economic activities as Valliyur that, it also has **dry fish processing** and **windmills**. Inhabitants often travel to Valliyur to work for daily wages in farms and wind energy farms as Valliyur is a business centre in the region. Predominantly, the residents **raise milch animals such as goat and cows** for subsistence use and marginal sale of dairy. They also manufacture **mud pots**, and have **sand mining** companies. In some villages, they have manufacture of steel puja thalis, idiyappam moulds and trays, totalling up to 32 varieties of utensils. Vijayapathy is a fishing intensive village panchayat, with one village, Idinthakarai, populated solely by fishing tribes. The region has some **horticultural activity** which provides daily wage labour opportunities. Crops cultivated include drumstick, banana, groundnuts, cucurbits, jasmine, guava, sapota. Out of these, bananas and drumsticks are often exported to markets in Kerala, and even to the Middle East.

Bidi rolling is also an important activity in the block. The activity is carried out by women in their spare time after their domestic chores are taken care of, thus working for about 8 hours a day. The bidi manufacturing company sources the necessary tobacco and the *tendu* leaves from Andhra Pradesh, Chhattisgarh and other states and supplies the raw material to the retail proprietors it has employed in the villages. The role of the proprietors is to engage women at their homes, supply material to them enough for 1000 bidis (half a kilo tendu leaves and 200 gms tobacco dust) daily, pay them the government- approved rates weekly, and maintain records of women engaged with the company indirectly. Therefore, they act as interfaces between the corporate and the bidi worker and are paid a monthly salary by the company. The retail stores maintained by these agents/ employees are the place of collection and disbursement of the raw material and finished products. The bidi stacks are collected weekly and taken back to the company office to be branded and sold in the rest of the state and the country. Some manufacturers even export to nearby Sri Lanka.



4. KEY FINDINGS

This section details the key findings of the study.

4.1 Understanding Perceptions

The Focus Group Discussions were held with the objective of understanding the prevalent perceptions regarding skilling in the villages. The outcomes of the discussions are captured in the following section by analysing the responses that emanated from the discussions held at the village level between stakeholders of varying groups. The invited FGDs witnessed participation from government officeholders at the village level, thus covering all potential participants in the region.

The discussions all began by probing the attitudes of the villagers towards skilling and vocational training as a whole. This prompted follow-ups from the discussants as to what constitutes skill development at all. Most responses acknowledged the need for skill training, given its role in enhanced placement of candidates. Therefore, it can be inferred from this that villagers are wary of the levels of educated unemployment rampant in their domiciles and are open to exploring strategies to tackle this problem. While it was considered useful to take certification in certain courses and upskill those who seek employment, it was also felt that an acknowledgement of the skills gained through apprenticeships and practical work experience ought to be made. Overall, the perception was that the youngsters looking for jobs were short of exposure, language and other soft skills as well as opportunities for practical experience. The value of a polytechnic diploma over a basic degree was emphasized and an overall need for awareness creation recognised.

The participants raised the issue of poor rates of employment offered by the Kudankulam Nuclear Power Plant (KKNPP) which according to them, discriminates against the villagers, flouting government promises. This has led to a certain degree of animosity towards the NPCIL and a general suspicion towards any state-led initiatives for the apparent betterment of the villages. The latter was exacerbated by unfulfilled election sops, leading to a general difficulty in setting up cottage industries in the region, thus damaging already fragile trust in government systems. Such sensitivities impact the purpose of this exercise in that, they affect how skill development is understood by the villagers and undertaken by the state. The issue of institutional distrust becomes far more apparent when other challenges in the villages, such as infrastructural shortcomings, poor rates of economic activity, basic qualification requirements and conflicting timings of training classes were brought up as roadblocks, signalling that the administrative apparatus has perhaps been dissonant with the villagers.

The reliance on KKNPP as a major source of employment arises out of two simultaneous situations: the decline of other livelihood options such as agriculture and the lack of other large scale economic activity in the region. The discussions attributed this phenomena to the establishment of the KKNPP, but given the strained relationship between the locals and the KKNPP, it has to be viewed with caution. However, the symptoms of the phenomena point that the issue is not so suspect; villagers felt that they made the sound choice by skilling themselves and attaining advanced degrees, but were failed in the job market due to lack of opportunities or the inability to communicate in English and/or Hindi. While they demanded soft skills training to overcome such shortcomings, they also pointed at a lack of industries and economic activity in the region, resulting in fewer avenues for skilled employment. This led to the discussions on migration, which was identified as due to distress from a poverty of skilling and job opportunities.

Migration in search of employment is the most common form in the villages; the discussants opined that the quickest fix to curb out-migration would be to train and equip more people for self-employment. Setting up of Small Scale Industries (SSIs) and Micro, Small, Medium Enterprises (MSMEs) is useful to tackle the dual problem of unemployment and low economic activity. Rectification of bottlenecks such as red-tapism and access to credit however, is still pending. Further, there was a call to increase awareness about the various opportunities that do exist in different fields such that aspirants could align their interests alongside the demand for jobs.

In one of the discussions held at Pazhavur, a participant quipped that if agriculture were a reliable source of income as it used to be, issues of employment, livelihoods enhancement and migration would not have arisen in the first place. The main obstacle to the sustenance of agricultural activity is the fact that the Radhapuram taluk is not irrigated at all. Floriculture

is the prevalent form of cultivation but poor market linkages and supply chain management practices, including the meddling of middlemen, make it a low-profit venture. A repeated suggestion that arose out of the discussions was to open a fragrance factory that manufactures perfumes, essential oils and other floral products like agarbathis to enhance value of the local produce.

The aspirations among the young to move abroad as skilled labour in sectors such as Petroleum Drilling, Construction and Iron & Steel is very high; they view it as a necessary exile in order to earn quick money and gain exposure, to return and start businesses in their domicile. The rampant perception is that jobs abroad pay better and upskill candidates for their advancement. Therefore, there is high demand for skill development for such jobs.

There is also a general feeling that people must be able to look beyond KKNPP as the lone employment option. For instance, training in the Green Jobs Sector is woefully lacking, implying that there is unmet demand from the villagers' side. In Kudankulam specifically, a tie-up with the local Panchayat offices will assure self-employment and promote enterprising behaviour. The opening of new ventures by the government, such as the SEZ in Nanguneri was proposed and established for the purposes of setting up a multi-product hi-tech SEZ, but lies unused due to the government's refusal to provide water and electricity on favourable terms. Similarly, the factory in Vijayapathy GP that was conceived to produce parts for NPCIL is also not functioning, which results in double wastage of resources.

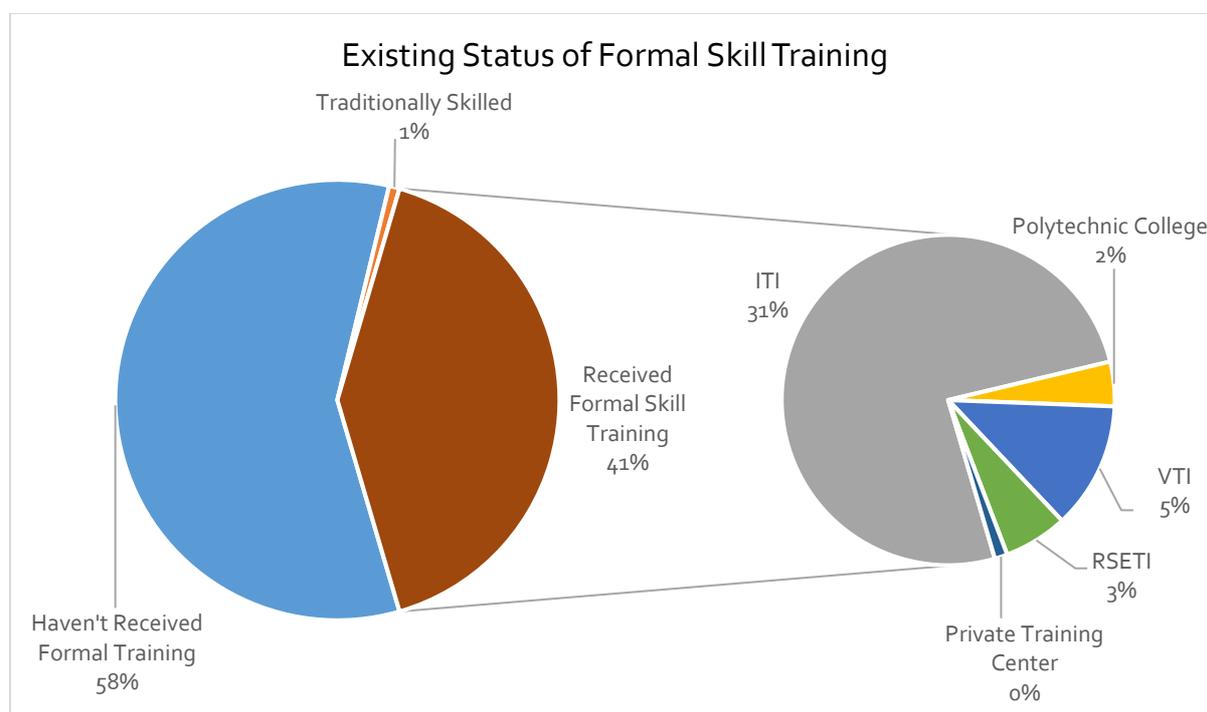
Finally, the discussants touched upon the need for training in value addition strategies such as manufacture of finished products, handicrafts and export of raw material. The lack of awareness in this regard and their vulnerability to being exploited were highlighted. The sharp gender divide in the education discipline pursued- mostly Engineering or Arts & Science degrees for women and Diplomas/ Polytech for men- also put the women at a professional disadvantage, as advanced degrees often do not focus on immediate employability. Female candidates are not allowed to move out of their villages in search of employment or skill development, thus doubly disadvantaging them by virtue of their gender and higher education. This analysis fits into the larger picture of rampant unemployment among the educated youth in these villages, as they are often unable to find jobs related to their field.

4.1.1 Quantitative Insights

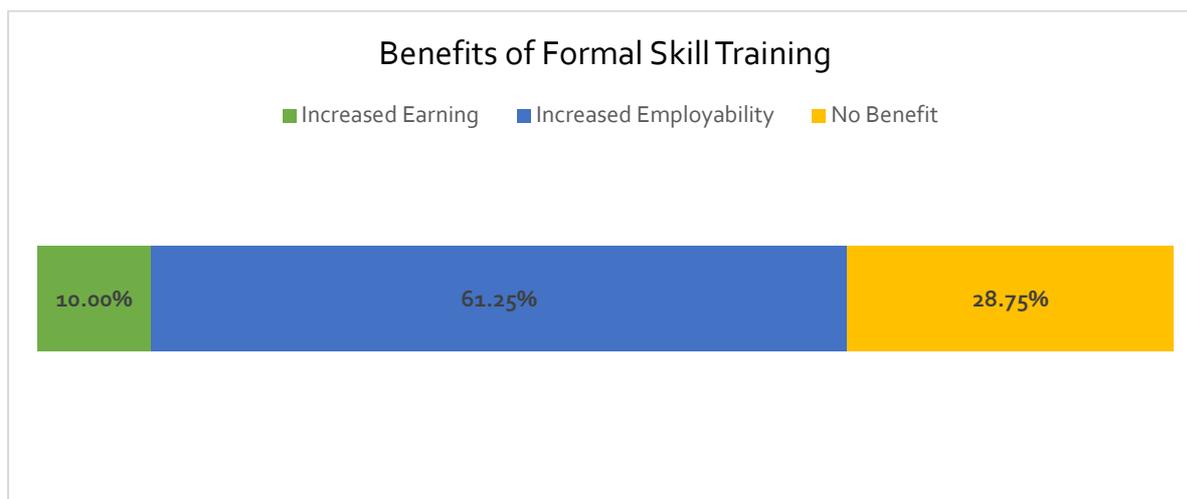
The baseline surveys quizzed the respondents to assess their perception about skilling in terms of formal training and institutional infrastructure. While a large proportion of the respondents (58%) recorded that they have not received any formal skill training, about 41%

responded that they have been skilled formally. Less than 1% of the respondents recorded that they have traditional skills (in vocations such as jewellery making or woodwork).

Off the 41% who responded that they have been formally skilled, almost one-third have been trained at ITIs. This signals that there is a high level of awareness around ITIs in general. Vocational Training Institutions enjoy the next level of popularity with about 5% of skilled candidates making use of this facility. Rural Self Employment Training Institutes and Polytechnic Colleges follow, and private training centres being relied on the least. This trend is also symptomatic of the fact that there are very few private training centres in the region.



As a follow-up, survey respondents were asked to elaborate as to why they chose to skill themselves, given their current employment status. Majority of the respondents, at 61.25%, felt that skill training would boost their chances of employability, while 10% of the respondents sought skill training in the hopes of bagging higher pay packages. The remainder 28.75% were of the opinion that skill training has been of no benefit to them; this air of passivity can be attributed to the fact that most of the surveyed skilled persons were actively seeking employment.



Unsurprisingly, ITIs emerged as the skilling institutional infrastructure that the most people were aware of (35.79%). 16.75% of the respondents were aware about RSETIs while Polytechnic Colleges, Vocational Training Institutes and Private Training Centres registered awareness at 5.1%, 4.8% and 3.1% respectively. A staggeringly high proportion of people do not know anything about skill training institutions; 34.5% of the respondents had not heard of any of these institutions, and this points to a lack of awareness in the local population.

While there was common agreement that skill training does benefit employment opportunities (almost 80% of the surveyed population opined in the affirmative), about 15% of the respondents felt otherwise. Their disagreement, when broken down, can be correlated with the lack of awareness around skilling initiatives and institutions. Numerically, among those who disagreed, about 64.4% had not heard of a single skill training infrastructure, as opposed to only 27.3% among those who had agreed. Thus, there is a strong correlation between perception and awareness about institutions, thus necessitating better initiatives in the direction of awareness creation.

4.2 Gauging Aspirations

From the baseline surveys, it is possible to understand aspirations of the targeted beneficiaries in terms of preferred sectors of employment, expected wage rates, migratory behaviour and workplace priority. These data points have been arrived at through the analysis of the responses received. Accordingly, the top sectors in which people seek employment have been arrived at so as to understand the preferences of the population.

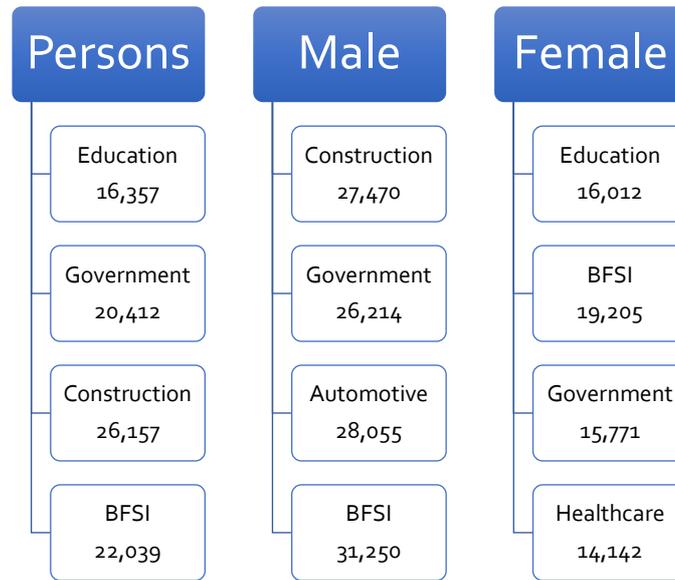


Education emerges as the top preferred sector, with over 21% of the respondents choosing it to work in (refer infographic on left). This is followed by Government in the second preference, with 15.5% of the respondents seeking employment in job roles at the government. Construction (15%) and Banking, Financial Services and Insurance (13%) follow closely in the order of preference. However, a gender-disaggregated analysis will reveal that the numbers are skewed by the large proportion of female respondents in the survey. As the corresponding figures below show, men and women have differential interests and priorities which are largely in keeping with the traditional gender roles.

When considering responses only from the males, it becomes apparent that the most preferred sector is Construction (34%), with its potentials to migrate and job market opportunities abroad. This is also the sector that often employs skills attained through training programmes and Diploma courses, heavily preferred by men. Government sector jobs are also attractive to males of the target area (17%) as are other traditionally masculine vocations such as the automotive sector (11%). The infographic on the right illustrates these data points. What is revealed here is an understanding of trade-offs between job security vis-à-vis opportunities and a balancing of interests.



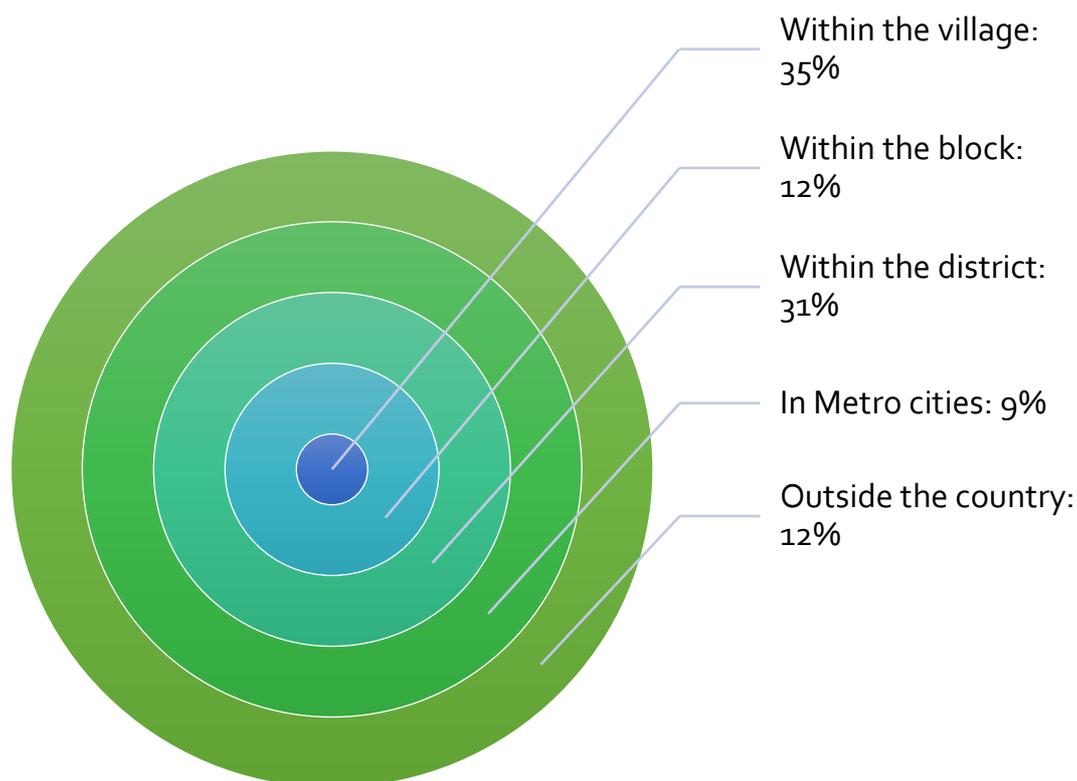
In a stark contrast, the figures for women paint a different picture, where 34% registered a preference for education as a top sector to work in. about half as much women recorded an interest to work in the Banking sector, which follows closely. True to assigned gender roles again, women see healthcare provision in job roles such as Nurse or Bedside Assistant as a meaningful vocation to them (refer infographic on left). Therefore, the strong correlation between gender and preference exists, as does an acknowledgement of the geographical location of the job market. Women also exhibit very low migratory behaviour, effectively situating them within the target region at large.



Gender of respondent affects not just the preference in sectors but also the monthly wage expectations in the employment. This is illustrated best through the appended infographic, where it is evident that the aspired wages in comparable sectors, register a marked difference. Consider government job pays as aspired by the two groups: while male respondents expect INR 26,214, female respondents seek only INR 15,771, which is a significant contrast. Similarly, bankers' salaries as aspired to by women stand at INR 19,205 while men expect INR 31,250, illustrating a further gap. This could again tie back into the argument about mobility of job aspirants, with women showing restricted tendency to migrate and men exhibiting migratory behaviour.



When analysed for priorities at place of work, the ranking options were also split along gender lines; women prioritised safe working conditions with 62% of them reporting it as a prime concern. Men on the other hand cared equally about wages and workplace safety, as illustrated by the graph above. Overall, safe working conditions take precedence over wages or job security. The low prioritisation of job security could be attributed to the general culture of casual labour in the region.



Regarding the mobility/migration of the respondents in the target area, a cumulative 78% wish to work within the district. The preference for working within the village is highest, at 35%. This trend is driven by women. Men are more comfortable with migrating out for work, especially out of the country. Wages that people expect upon migrating out were also collected but given the low percentage of respondents willing to migrate out, it does not form a substantial analysis. The scenario that this creates is the load on local employment opportunities. The load has to be dispersed across large industries and MSMEs, and the opportunities in these enterprises have been captured in an upcoming section. But it is equally important to build capacity for entrepreneurship since most of the existing MSMEs are on a decline due to increasing input costs or other peculiar problems.

4.3 Scoping Demand

The skilling of job seekers will be meaningful and practical only if the demand side of the employment market is fulfilled. The demand side is composed of job givers such as MSME

owners and the large industries in the region. Therefore, understanding their perspective is crucial for assessing the level of skill required as well as the job roles in demand. This scoping is crucial for creating the demand profile of the region, in order to tailor the supply side to the need. Obviously, the requirement of skilled labour is in close conjunction with the economic activity in the region and a high proportion of the demand is in the semi- skilled agriculture and retail sector or in the skilled construction sector.

The methodology employed to understand the demand side has been a combination of primary and secondary processes. Available secondary government data on MSMEs and officials' testimonies on general employment trends, coupled with Focus Group Discussion responses from enterprises at different levels in terms of investment and employment have been included in this section. The approach accounts for multiplier effect of manufacturing sector and for the growth in services based on rising per capita disposable income.

In discussions and interviews with industrialists, sub-contractors and owners of small businesses in the Radhapuram taluk, it was revealed that regardless of the level of education, workers were required to be trained to the needs of the job. The roles that they usually hired for included Machine Operator, Helper- manual labourer, mechanic, engineering works labourer, ITI- moulder, welder, polisher, and ironsmith among others. They opined that certificate skill training courses were of poor quality and require an overhaul. On the agriculture front, farmers were keen to employ tractor and machinery operators as well as those skilled in mixed cropping practices. Overall, an emphasis on innovation and promotion of new industries, such as setting up of a rail coach factory in the vicinity to tap into local copper reserves, was placed. This is in line with the idea to match industries to proximate raw material sources to maximise supply chain potential.

As already discussed, a major portion of the demand for incremental labour force is generated by MSMEs. From the initial secondary data collection and the pilot visit, it had become evident that MSMEs had tremendous potential to absorb the workforce. While this promotes entrepreneurship and has a positive correlation with distribution of wealth in a growing economy, it also increases the difficulty in identifying pockets/clusters of sector specific demand as most MSMEs hire in small numbers. As a result of the MSME growth phenomena, demand is expected to be dispersed across the district of Tirunelveli. In the case of large-scale enterprises, existing industries even after accounting for attrition, are not generating enough employment demand.

An important indicator of economic activity from the supply side perspective is the wage levels prevalent in the market. In the context of high degree of engagement of casual labour, it becomes all the more pertinent to discuss wages and work hours. In response to the question, MSME owners reported that they pay INR 500 for 8 hours of work in a day,

regardless of gender, while farmers pay differentially to men and women as the value of the work they respectively do varies. Accordingly, female casual labourers in agriculture earn INR 250 for 4 hours of work, while male casual labourers earn INR 400 for 3.5 hours of work. The distress in market reported by employers also include wage conditions.

With regards to the large industries in the region, there are only two industries. One is the wind energy farms and the other is the Kudankulam Nuclear Power Plant (KKNPP). The wind energy farms mostly employs unskilled labour on a contractual basis, and has been kept out of the purview of this study. KKNPP, on the other hand, is estimated to generate demand for various job roles in the time frame of next one year. This is due to the on-going construction of reactor three and four. Reactor one and two are already operational at a capacity of 1000 MW each, making this the single largest power station in India. Units 3 and 4 will further add to this capacity.

Existing employment in Unit 1 and 2 is mostly made up of Scientific Officers and Assistants who require a degree and this demand cannot be met by vocational training. Technicians can be from ITIs but based on the past trends of low vacancies to high number of applicants, it can be concluded that the demand for this job role is sufficiently met. Other possibilities include job trades like security guards and drivers. Security on the operational area of the plant is taken care by the CRPF, while the ongoing construction and KKNPP Township is taken care by Tamil Nadu Ex-Servicemen's Corporation Limited (TEXCO). In regards to job roles related to driving, KKNPP has around 40 vehicles (Indicas, Sumos, and buses) which are provided for by sub-contractors, with the exception of four buses that KKNPP owns. There is no gap in the supply and demand of drivers for these vehicles and the total number of vehicles is also quite low.

The major human resource requirement is due to the expansion (construction of Unit 3 and 4) of KKNPP. The entire expansion has been sub-contracted to various firms like L&T and Reliance, and the work is mostly in the construction sector. The demand, consequently, is in the construction sector. The highest demand has been estimated for shuttering carpentry with a demand of almost **930 shuttering carpenters**. There is also high demand for **Bar Bender and Fixers and Reinforcement Fitters, estimated around 870**. The usual trend is that these carpenters and fitters require 2 helpers each. Other than these roles, there also exists demand for **Masons (Form Finished and Special Concrete)** and Welders. Based on previous hiring trends, around 20% of the requirement is usually sourced from Radhapuram Taluk. With a skilling intervention in place, this could perhaps be driven up and the efficacy of the skilling intervention can also be gauged.

Other sectors in which sub-contractors are operational, like logistics and non-plant related construction activities do not have any major human resource requirement.

Overlaying demand with aspirations, construction is at a sweet spot as it figures on the top as an aspirational sector for male respondents and there is plenty of demand for skilled construction workers. Education and Government related job roles aspirations cannot be met through the existing Sector Skill Councils. BFSI and Healthcare training can also be provided but the local scope of jobs in these sectors is not much, and persons will have to seek jobs elsewhere. This is slightly problematic because BFSI and Healthcare are aspirational sectors for women and as per our baseline survey, women do not prefer to migrate out for work.

5. ANNEXURES

5.1 Pilot Survey Findings



5.2 Sample Selection

Objectives of Survey Study

1. To collect information on the career aspirations held by persons between the age group of 18-35 years.
2. To understand the popular perception/awareness towards skill development.
3. To assess the current status of employment/unemployment amongst the target population.

Sample Size Calculation

$$\text{Sample Size} = \frac{\frac{z^2 * p(1-p)}{e^2}}{1 + \frac{z^2 * p(1-p)}{N * e^2}}$$

1.96	Z	The statistic that defines the level of confidence desired. The value set reflects 95% confidence level
0.5	p	The incidence of the parameter in population based on earlier estimates. Due to the lack of earlier estimates, it has been set at a maximum value of 0.5
0.05	e	The margin of error to be attained. The value is set at 0.05 to reflect a +5% or -5% error margin
26663	N	The estimated number of households in the target area, estimated using population size provided by NPCIL and average household data obtained for target area from Census 2011

379 Sample Size

Sampling Methodology

Methodology Adopted: Probability proportional to size

Physical Selection Process			
PSU No.	Name	HH Size	Cumulative
1	Pazhavor	1338	1338
2	Erukkandurai	1009	2347
3	Vadakkankulam	2171	4518
4	T. Karunkulam	881	5399
5	Udayathoor	606	6005
6	Parameswarapuram	521	6526
7	Adangarkulam	1249	7775
8	Thiruvambalapuram	833	8608
9	Dhanakkarkulam	1300	9908
10	Chidambarapuram Yacopuram	845	10753
11	Radhapuram	1666	12419
12	Levinjipuram	3302	15721
13	Chettikulam	2454	18175

14	K. Navalady	856	19031
15	Koondankulam	2872	21903
16	Chidambarapuram	467	22370
17	Avaraikulam	1934	24304
18	Vijayapathi	2359	26663

Final GPs selected

Number of PSUs to be selected	8
Sampling Interval (I)	3332.875
Random Start	805

Selection Numbers	GP Selected (by PPS)	Sample size allocated to each GP
805	Pazhavor	48
4137.875	Vadakkankulam	48
7470.75	Adangarkulam	48
10803.625	Radhapuram	48
14136.5	Levinjipuram	48
17469.375	Chettikulam	48
20802.25	Koondankulam	48
24135.125	Avaraikulam	48
	Total	384

5.3 Baseline Survey Questionnaire

4	Qn_In	Question	Option Name
1		Name of Block	1. Radhapuram, 2. Valliyur
1.1		Name of gram panchayat	
1.2		Name of village/habitation	
2		Location	
3		Name of Respondent	
4		Gender of Respondent	1. Male, 2. Female, 3. Other
5		Contact number of respondent	
6		Age of Respondent	

7	What is your highest education level?	1. Not literate, 2. Literate without formal schooling, 3. Anganwadi OR Pre-school, 4. Primary (I-V), 5. Junior (VI-VIII), 6. Secondary (IX-X), 7. Higher Secondary (XI-XII), 8. Diploma/ITI/Polytechnic, 9. Graduate, 10. Post-Graduate
8	What is your present status?	1. Studying, 2. Employed-Contractual, 3. Employed-Casual, 4. Employed - Full Time, 5. Unemployed-but actively seeking for work, 6. Unemployed-and not actively looking for work
	If Studying	
8.1.1	What is the current level of study?	1. Higher Secondary (XI-XII), 2. Diploma/Certificate, 3. Graduation, 4. Post-Graduation
8.1.2	What will be pursued after completing the current course of study?	1. Higher Education, 2. Employment (job), 3. Self-Employment, 4. None of the above
	If Employed (any kind)	
8.2.1	Which Sector are you employed in?	1. Agriculture and Allied Activities, 2. Automotive, 3. BFSI, 4. Construction, 5. Education, 6. Food Industry, 7. Gems and Jewellery, 8. IT-ITeS, 9. Leather, 10. Healthcare, 11. Paints and Coatings, 12. Retail, 13. Textile and Apparel, 14. Tourism and Hospitality, 15. Government, 16. Beauty and Wellness, 17. Domestic Work, 18. Furniture and Fittings, 19. Handicrafts and Carpet 20. Iron and Steel, 21. Indian Plumbing, 22. Other
8.2.2	How much time have you spent on the current job/role?	1. 0-6 months, 2. 6-12 months, 3. 1-3 years, 4. 3-5 years, 5. Greater than 5 years
8.2.3	What is your job role/title?	Options in Job Role Sheet
8.2.4	What is your current wage/earning per month?	
8.2.5	How many years of completed work experience do you have?	
	If Unemployed-but actively seeking work	
8.3.1	Were you previously employed?	1. Yes, 2. No
8.3.2	If yes, which sector were you employed in?	1. Agriculture and Allied Activities, 2. Automotive, 3. BFSI, 4. Construction, 5. Education, 6. Food Industry, 7. Gems and Jewellery, 8. IT-ITeS, 9. Leather, 10. Healthcare, 11. Paints and Coatings, 12. Retail, 13. Textile and Apparel, 14. Tourism and Hospitality, 15. Government, 16. Beauty and Wellness, 17. Domestic Work, 18. Furniture and Fittings, 19. Handicrafts and Carpet 20. Iron and Steel, 21. Indian Plumbing, 22. Other

8.3.3	If yes, What was your job role/title?	See Job Roles sheet
8.3.4	If yes, What was your wage/earning per month?	
8.3.5	If yes, How many years of completed work experience do you have?	
8.3.6	Why are you unable to find employment?	1. Lack sufficient experience, 2. Lack required skill set, 3. Lack of opportunities, 4. Unsatisfactory wages, 5. Other
	If Unemployed-and not actively looking for work	
8.4.1	Were you previously employed?	1. Yes, 2. No
8.4.2	If yes, which sector were you employed in?	1. Agriculture and Allied Activities, 2. Automotive, 3. BFSI, 4. Construction, 5. Education, 6. Food Industry, 7. Gems and Jewellery, 8. IT-ITeS, 9. Leather, 10. Healthcare, 11. Paints and Coatings, 12. Retail, 13. Textile and Apparel, 14. Tourism and Hospitality, 15. Government, 16. Beauty and Wellness, 17. Domestic Work, 18. Furniture and Fittings, 19. Handicrafts and Carpet 20. Iron and Steel, 21. Indian Plumbing, 22. Other
8.4.3	If yes, What was your job role/title?	See Job Roles sheet
8.4.4	If yes, What was your wage/earning per month?	
8.4.5	If yes, How many years of completed work experience do you have?	
8.4.6	Why are you not seeking employment?	1. Family responsibilities, 2. Disability/Illness, 3. Feel unqualified, 4. Lack of opportunities, 5. Don't feel like working, 6. Temporary-will seek work again, 7. Other
9	Which sector would you like to work in?	1. Agriculture and Allied Activities, 2. Automotive, 3. BFSI, 4. Construction, 5. Education, 6. Food Industry, 7. Gems and Jewellery, 8. IT-ITeS, 9. Leather, 10. Healthcare, 11. Paints and Coatings, 12. Retail, 13. Textile and Apparel, 14. Tourism and Hospitality, 15. Government, 16. Beauty and Wellness, 17. Domestic Work, 18. Furniture and Fittings, 19. Handicrafts and Carpet 20. Iron and Steel, 21. Indian Plumbing, 22. Other
10	What wages do you expect to receive in this sector? (Per month)	
11	What kind of employment would you prefer?	1. Full Time, 2. Self-employment, 3. Casual, 4. Contractual

12	What is your preferred job location?	1. Within the village, 2. Within the block, 3. Within the district, 4. In Metro Cities, 5. Outside the State, 6. Outside the Country
13	At what wages (per month) would you be willing to migrate out of your hometown for work?	
14	Which among the following is of the highest importance at a workplace?	1. Wages, 2. Job Security, 3. Safe working conditions
15	Have you received (or are receiving) formal skill training?	1. Yes, 2. No, 3. Traditional Skills
15.1	If yes, where have you received this training?	1. ITI, 2. Vocational Training Institute, 3. Private Skill Training Centre, 4. Polytechnic College, 5. RSETI
15.2	If yes, In what way has skill training benefitted you?	1. Increased Employability, 2. Increased Earning, 3. No benefit
16	Which among the following are you aware of?	1. ITI, 2. Vocational Training Institute, 3. Private Skill Training Centre, 4. Polytechnic College, 5. RSETI, 6. None of the Above (NOTA)
17	Skill training will help further/progress your career.	1. Agree, 2. Disagree, 3. No opinion
18	Does the surveyor believe the respondent answered the questions honestly?	1. Yes, very honestly, 2. Yes, somewhat honestly, 3. Can't Say, 4. No

5.2 FGD Questionnaire

Objective	To gain qualitative insights that can explain the quantitative trends that emerge from the baseline survey.
Group Size	8-10 Persons
Duration	1 Hour
Moderator	Ank Aha Representative
Guidelines to be followed by Moderator	
DOs	
1	Go around the room and get each person to answer the first question, to draw everyone in.
2	Keep praising and thanking people for their contribution.
3	Order of the questions can be changed, if someone brings up points related to a later question.
4	Request participants to illustrate points/opinions with examples.
5	Explain that the discussion will be kept highly confidential and no person will be quoted anywhere.
6	If need arises, explain who the report will be submitted to (i.e. NSDC).
DON'Ts	
1	Do not ask leading questions.
2	Do not share or express personal opinions.
3	Do not tell people that they are wrong.
4	Do not interrupt people while they are talking, but ensure a healthy discussion.
5	Do not let participants criticize one another.
Structure of the Questionnaire	
Three probing questions	
Four follow-up questions	
One exit question	

Design Process of questions		
1	The number of questions will be kept under 10.	
2	The questions will be as short and concise as possible.	
3	The wording of the questions should be clear.	
4	Sensitive topics/issues will not be touched upon.	
Questions		
1	What are your thoughts about skill/vocational training?	Probing
2	How do you think skill/vocational training will impact an individual?	Follow-up
3	What are the challenges in imparting skill/vocational training?	Follow-up
4	What is the nature of migration that exists in your region?	Probing
5	What can be done to reduce/curb migration in your region?	Follow-up
6	What are the main livelihood options present in your region?	Probing
7	What are the key challenges that restrict the growth the livelihood options? Please discuss solutions also.	Follow-up
8	Is there anything else that you would like to say about skill/vocational training?	Exit



Transforming the skill landscape

301, 3rd Floor, West Wing, World Mark 1, Asset 11, Aerocity, New Delhi – 110037

Tel: +91-11-47451600-10 | Fax: +91-11-46560417

Website: www.nsdcindia.org

July 2018

About National Skill Development Corporation (NSDC): National Skill Development Corporation, working under the aegis of Ministry of Skill Development & Entrepreneurship, is a unique public-private-partnership which aims to catalyze creation of quality vocational training ecosystem in India. The organisation provides funding to build scalable and profitable vocational training initiatives. Its mandate is also to enable support system which focuses on quality assurance, information systems and train-the-trainer academies either directly or through partnerships. Since establishment in 2009, NSDC has trained more than 2 crore people through its partnership with 600+ training partners, wide a robust network of 11,000+ training centers spread over 600 districts across the country. NSDC has institutionalized 37 Sector Skill Councils and is also implementing Government's flagship skill development schemes such as Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Pradhan Mantri Kaushal Kendra (PMKK), National Apprenticeship Promotion Scheme (NAPS), among others.

CONTACT US

NSDC's Skills Intelligence Platform at skillsip@nsdcindia.org

