Human Resource and Skill Requirement Study for 21 Coastal Districts of India

Prepared for:
Sagarmala, Ministry of Shipping and National Skill Development Corporation

Andhra Pradesh

Visakhapatnam
East Godavari

Final Report

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1. District Profile
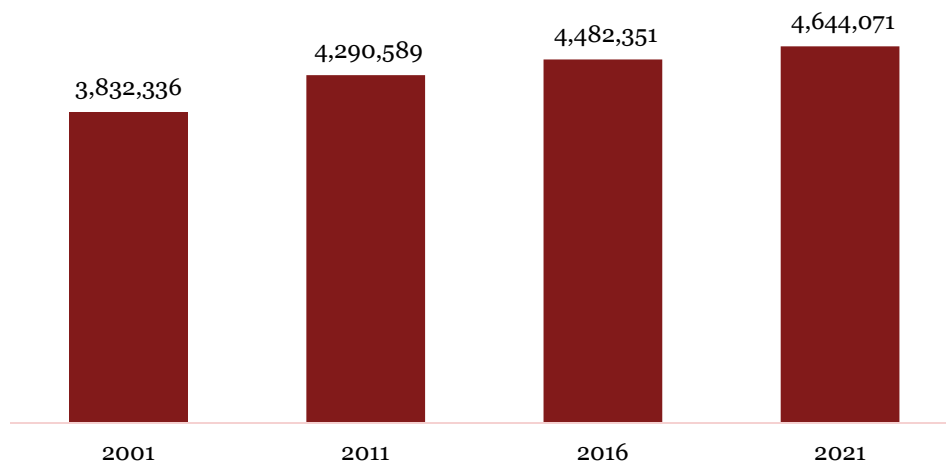## 1.1. Visakhapatnam

About Visakhapatnam

Around 40% of the area in the district is covered by forest and has rich mineral deposits. Bauxite deposits in Visakhapatnam district are considered to be the largest in the country. Agriculture is the main stay of nearly 45% of the households in Visakhapatnam district[1]. The district is the central hub for industry and education in the state of Andhra Pradesh and is known for its natural harbours, temples, beaches, valleys and Buddhist monastic complexes. The district houses a major port, Visakhapatnam port and a minor port, Gangavaram port.

1.1.1. Demographic Profile

Indicator	Value
Total population	42,90,589
Decadal rate of growth of population (2001-11)	12%
Rural population	52.5%
Female	50.1%
SC population	7.6%
ST population	14.4%
Workforce participation (As % of total population)	44%
Main Workers (As % of total population)	34%
Marginal (As % of total population)	10%
Non-workers (As % of total population)	56%
*Number of people with vocational training in the age group of 15+[2]	30 per 1,000

Population Trends[3]

Figure 1 Population Trends in Visakhapatnam (2001 -2021)

Visakhapatnam will continue to benefit from the young population for the coming 10-15 years. Visakhapatnam has 47% urban population, indicating a potential growth in services sector. Using proportional method for estimating the population for the period 2001-11 (10 years), the population is estimated to be 4,482,351 and 4,644,071 in 2016 and 2021 respectively. The projected absolute growth in the population from 2016 to 2021 is 4%.

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[1] (District Level Estimates, Employment and Unemployment Survey, Labour Bureau)
[2] (District Level Estimates, Employment and Unemployment Survey, Labour Bureau)
[3] Based on Census 2001 and 2011, PwC Analysis

Figure 2 Population Pyramid Visakhapatnam -2011
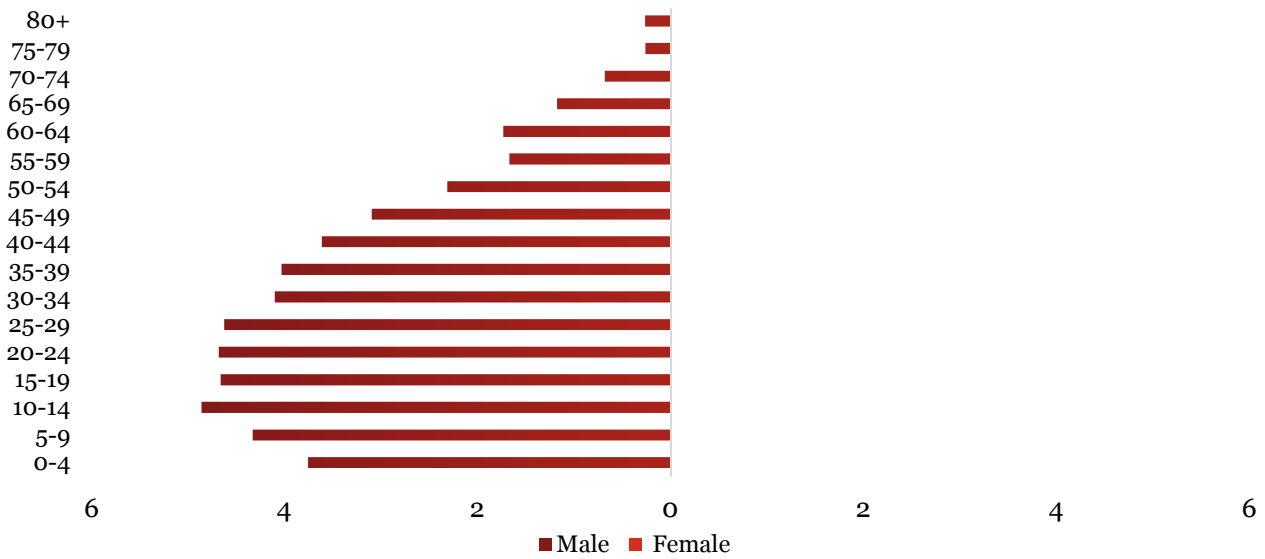
Literacy rates
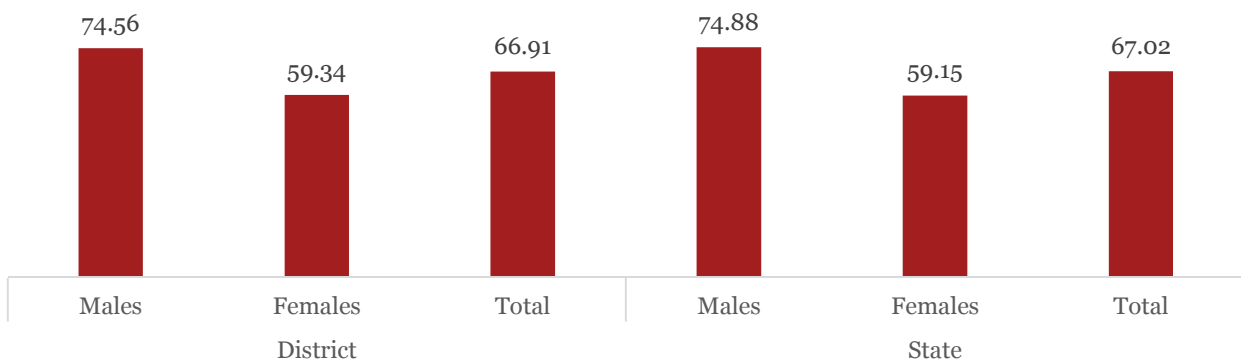
The total literacy rate of Visakhapatnam, as per Census 2011, is approximately 67%, which is around the state's literacy rate. Also, the female literacy rate of Visakhapatnam is 59.34% which is much lower than the male literacy rate, which is 74.56 % in 2011.

Age-specific population trends and education level for 2011[4]

As per the Census 2011, the population in the age group of 15 to 24 years was 796,116 (18.5% of the overall population). Using proportional method, the population in the age group of 15-59 years is estimated to be

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[4] Based on Census 2001 and 2011

2,912,535 and 3,017,617 in 2016 and 2021 respectively. The projected absolute growth in the population from 2016 to 2021 is 4%.

Figure 3: Growth trend of population in the age group 15-59 year in Visakhapatnam (2001-2021)
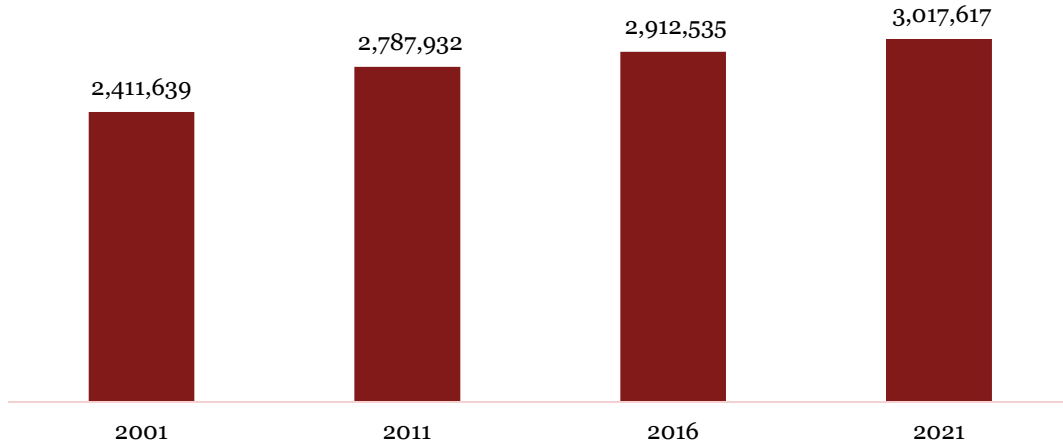
Figure 5 Age Specific Population in Visakhapatnam (15-24 years)
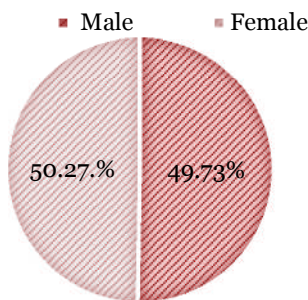
Figure 4 Age Specific Population in Visakhapatnam (15-59 years)
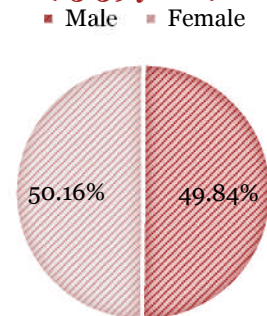
The share of population of males and females in total population of Visakhapatnam is around 50% each in both the age categories-15-59 and 15-24 years. The share of women in the 15-24 age bracket is marginally lower than in the 15-59 age bracket.

Figure 6 Age specific education level in Visakhapatnam (15-59 years)

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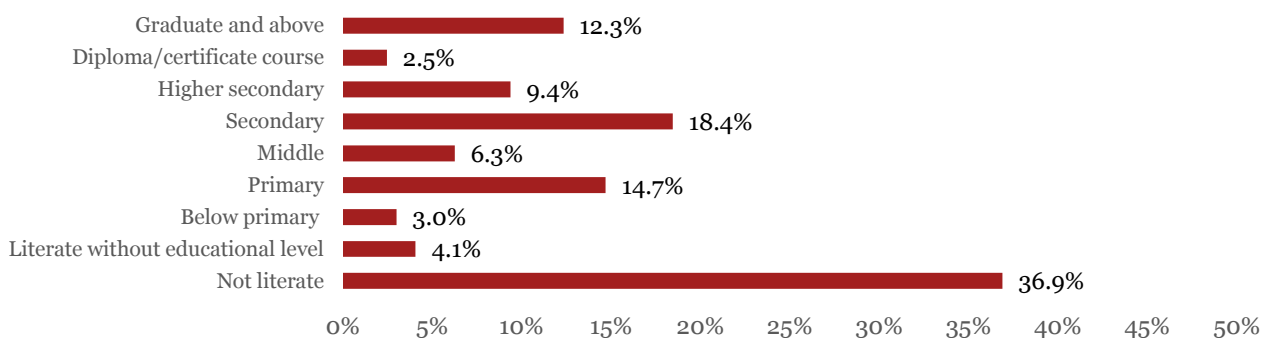
In the age category of 15-59 years, 36.9% of the population of Visakhapatnam is not literate, 4.1% of the population in the age category of 15-59 years are literate without any educational qualification, 3% have attended school till below primary level and 14.7% have completed schooling only up to primary level. 6.3% of the population in 15-24 years category have completed schooling up to the middle level, whereas around 18.4% of the population in 15-24 years category have been educated till secondary. Only 2.5% of the population of this district have done a certificate/diploma course and 12.3% have at least graduated, indicating that a graduate/post-graduate degree is more sought after than a certificate/diploma.

For the age category of 15-24 years, 14.1% of the population of Visakhapatnam is not literate, 3.2% are literate without any educational qualification, 2% have attended school till below primary level and 12.5% have completed schooling only up to primary level. 10% of the population in 15-24 years category have done schooling up to the middle level, whereas, around 29.1% of the population in 15-24 years category have been educated till secondary. Only 3.1% of the population of this district have done a certificate/diploma course and 8.8% have at least completed graduation.

Figure 7 Age Specific Levels of Education (15-24 years)
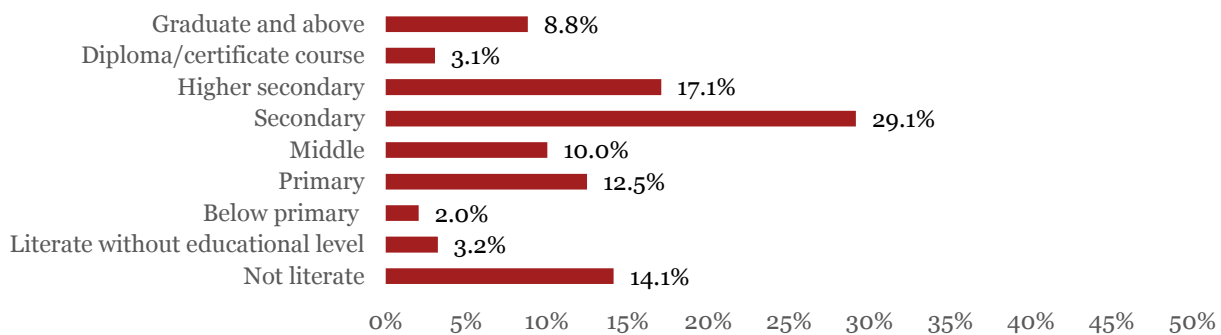
Age-specific distribution of workers and educational level

Figure 8: Age specific distribution of workers in Visakhapatnam (15-24 years)
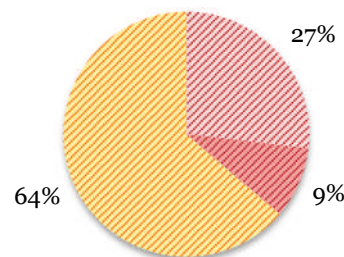
Figure 9: Education level of marginal workers available for work in Visakhapatnam (15-24 years)

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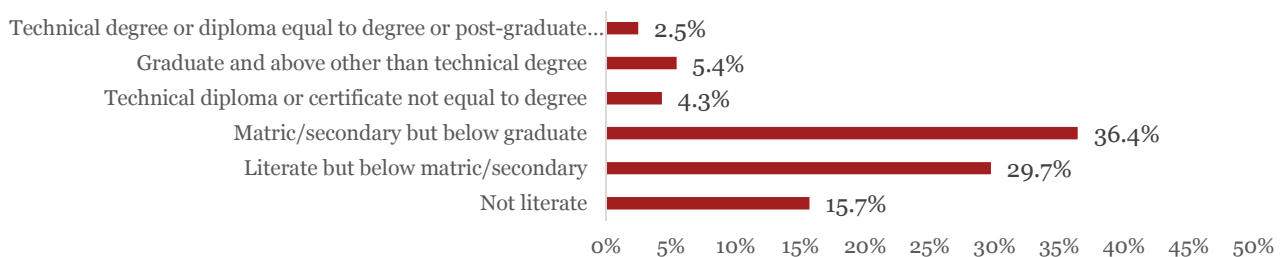
64% in the 15-24 age category are non-workers while 27% are main workers. 9% of the population are marginal workers.

Amongst the 52,727 marginal workers in the age group of 15-24 years, 1,091 (2.07%) hold a technical degree or a diploma equal to degree and 2,413 (4.58%) are graduates above holding degrees other than a technical one. 420 are at least graduate. 1,338 (2.54%) have a diploma or a certificate (not equal to degree). 16,205 (30.73%) are educated up to the matric/secondary level and 14,497 are (27.49%) literate with an educational qualification of below matric/secondary level. 14,239 (27.01%) marginal workers in this age group are not literate.

As illustrated from the census, the proportion of main workers who are illiterate (in the age category 15-24 years) is slightly less (3 percentage difference point between the two) than the proportion of marginal workers available for work and who are illiterate. We also find that the proportion of main workers who are literate but below matric/secondary (in the age category 15-24 years) is slightly more than (2 percentage difference point between the two) the proportion of marginal workers who are available for work and are literate but below matric/secondary.

Figure 10: Education level for main workers available for work in Visakhapatnam (15-24 years)

- Illiterate
- Literate but below matric/secondary
- Matric/secondary but below graduate
- Technical diploma or certificate not equal to degree
- Graduate and above other than technical degree
- Technical degree or diploma equal to degree or post-graduate degree

The proportion of main workers who have attained a technical degree or diploma equal to degree or post-graduate degree (in the age category 15-24 years) is slightly more than (1 percentage difference point between the two) the proportion of marginal workers available for work and who have attained a technical degree or diploma equal to degree or post-graduate degree. For the remaining three educational levels, we find that the population shares are more or less the same across the two worker categories.

. Figure 11: Education level of non-workers available for work in Visakhapatnam (15-24 years)
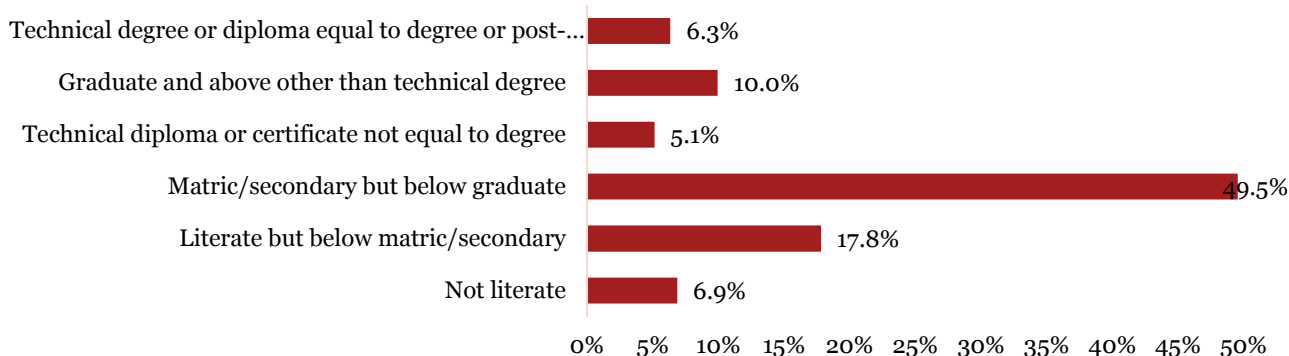
Amongst the 1,04,764 non- workers in the age group of 15-24 years, 6,646 (6.34%) hold a technical degree or a diploma equal to degree or post graduate degree and 10,425 (9.95%) have a graduate and above other than a technical degree at least. 5,382 (5.14%) have a diploma or a certificate (not equal to degree). 51,910 (49.55%) are educated up to matric/secondary level and 18,658 (17.81%) are with an educational qualification of below matric/secondary level. About 7,193 (6.87%) marginal workers in this age group are not literate.

1.1.2. Key Economic Drivers

The Gross Domestic Product of the district (at constant prices- 2004-05) was INR 32,423.25 Crore in 2012-13 and it has steadily grown at a CAGR of 7% over the period 2004-05 to 2012-13. The sectoral break up suggests that service sector contribution to district GDP is more than half (56%) followed by industries sector (35%). Further disaggregation suggests that Trade hotels and restaurants have a share of 20.51% and manufacturing sector has a share of 24.12% in the district GDP. Trade, hotels and restaurants have witnessed an impressive growth in their contribution to the district GDP with a growth rate of 107.6% between 2004 and 2012[5][6]

The key economic drivers of the district are illustrated below:

Figure 12: Sectoral breakup of Visakhapatnam district GDP at constant prices (2004-05)

■ Agriculture ■ Industry ■ Services
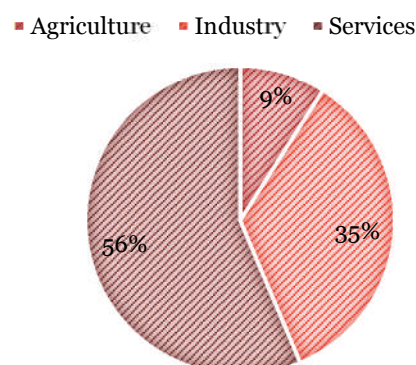
Port, maritime and logistics
- Presence of one of the 13 major ports in the country- Vishakapatnam Port
- Extension of existing container terminal in outer harbour by 0.54 million TEUs are planned
- Multi-modal Logistic Skill Parks are expected to be fully operational by 2017-18 and will have the capacity to handle 0.3 million TEU

Industrial Development
- Houses a host of manufacturing industries- apparel, food processing, petrochemical, pharmaceutical industries are prominent
- SH Food Processing P. Limited to establish a food park with an investment of INR 300 crores, Jawaharlal Nehru Pharma City to be developed with an investment of INR 7000 Crores,

Infrastructure Development
- Vizag–Chennai Industrial Corridor spans across 800 kms is expected to spur growth by augmenting existing investment in world-class transport networks, infrastructure, and industrial and urban clusters
- Vizag Metro Rail runs across 43 kms through 3 corridors

Urbanization
- Vizag has been identified to be developed as a SMART City
- Vishakapatnam Special Economic Zone is set up in a sprawling 360 acres of prime land

1.1.3. *Priority Sectors*

In Vizag, the priority sectors that have been identified are **Port and Maritime sector** and other sectors: **logistics, fisheries, tourism and construction.** In addition, **manufacturing, food processing, apparel and petrochemical** have also been identified as priority sectors from the point of view of their contribution to district GDP**.**

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[5] Andhra Pradesh State Planning and Development Society
[6] PwC Analysis

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1.1.4. *About Ports*

Ports & Maritime			
Major Ports: 1	**Minor Ports:** 1		**Shipyards: 1**
Details			
Visakhapatnam Port Trust			
Operations:	Land Lord Port model (PPP)	*Capacity*	34 mn tonnes P.A
Key Cargo	Thermal Coal (80%), Petroleum Oil and Lubricants (12%)	*No of berths:*	5
		Draft	13.5M
Description and key Trend	One of the few natural harbours along the eastern coast, the Visakhapatnam harbour is home to the Eastern Command of the Indian Navy and the Vizag Naval Dockyard. The harbour can be divided into three viz. the Inner Harbour, Outer Harbour and the Fishing Harbour. Major portion of the Cargo is bulk in terms of Coal and Oil. The Port is completely operated on Landlord Port Model. In addition the minor port of Gangavaram boasts the deepest draught among the all-weather ports in the country.		
Terminal Operations			
	Vizag Seaport Private Limited	**Vizag General Cargo Berth Pvt. Ltd**	**Visakha Container Terminal Pvt. Ltd**
Annual Capacity	2 berths: 20,000 tons (per day) each	Coal vessel of 1.64 MTPA	30,000 TUEs (per month)
Type of Cargo handled	Bulk cargo, Gypsum, Manganese Ore, Iron Ore, Coking Coal	Coal	Containers
High Demand Job Roles	Crane operators, truck drivers	Supervisors, Electricians, technicians, crane operators, bridge operators, fitter, drivers, ship unloaders	Truck drivers, Equipment Operators (QC/RTG/Reach Stackers), Berth/Yard Executives
Gangavaram Port			
Operations:	Private	*Capacity*	20.68 MTPA
Key Cargo	Bulk cargo, Gypsum, Manganese Ore, Iron Ore, Coking Coal	*No of berths:*	5
		Draught	19.5 M
Description and key Trend	Port Gangavaram is the deepest port in India with a draught of 19.5 m. The Andhra Pradesh Govt. has a minor stake in the port. The port's major client is currently the Vizag Steel Plant.		

1.1.5. Investments

As per the MoUs signed in the 'Partnership Summit-2016', investments to the tune of INR 54,666 Crores have been proposed and vary across a range of sectors which include power, chemical, industrial parks and pharmaceutical industries, to name a few. The proposed investment from this summit is expected to generate employment for 47,193 persons.

In the port and maritime sector, 2 multimodal logistics skill parks worth INR 600 Crores are expected to be operationalised in the coming years. The key players for the proposed projects are VTP, Concor, and Balmer and Lawrie. These logistics parks are expected to generate employment for 800-1000 persons in the construction phase and 200 persons in the operations phase.

In the manufacturing space too some significant investments are proposed, and these include expansion plans by Coca Cola worth INR 1000 Crores, establishment of Pepsico Plant worth INR 100 crores, Oil Refinery Project worth INR 18,400 Crores by HPCL, establishment of Aluminium Production Plant worth INR 6,700 Crores and expansion of Vizag Steel Plant worth INR 38,500 Crores.

- ✓ Vizag Metro Rail Project- Rs. 13,488 Crores; Total Kms- 42.55; Total Corridors-3
- ✓ 6 Lane National Highway- Anandapuram to Anakapalli- Rs. 500 crore
- ✓ NAD Kotha Road Flyover- Rs. 320 Crores
- ✓ Information Technology Investment Region (ITIR)- Rs. 50,000 to Rs. 60,000 crores. Employment- 9 lakh people.
- ✓ IT incubation center- Rs. 62.70 crore. Employment- 2,500.
- ✓ Society for Applied Microwave Electronics Engineering and Research (SAMEER)- Rs. 80 Crores.
- ✓ Electronic Hardware Manufacturing Cluster

Table 1: Proposed Key Investments for the year 2016-22 in Visakhapatnam

Sector	Proposed Investment (INR Cr)	Number of Projects	Expected Employment	Key Players
Port & Maritime	2,811	7	1,810 persons	Visakhapatnam Port, Vizag General Cargo Berth, CONCOR, Visakha Container Terminal, Vadinar Oil Terminal
Manufacturing	1,12,199	16	52,762 persons	Coco cola, Kaizen Power, Texport, Hareon Solar Company, Kerneos India Technologies, Pepsico, Asian paints, Rashtriya Ispat Nigam Ltd (RINL)
Smart City	1,51,613	25	--	Greater Visakhapatnam Municipal Corporation (GVMC)
Infrastructure	14,308	3	--	NHAI, Metro Rail
Port & Maritime	2,811	7	1,810 persons	Visakhapatnam Port, Vizag General Cargo Berth, CONCOR, Visakha Container Terminal, Vadinar Oil Terminal

Figure 13: Proposed Projects under SMART City initiative-Visakhapatnam, Source: Visakhapatnam Smart City Corporation[7]

Projects	Sector	Cost (In Cr.)
Solar Rooftop & Associated Projects	Solar Energy	**600**

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[7] Greater Visakhapatnam Smart City Corporation Limited

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Projects	Sector	Cost (In Cr.)
Beautification of Beaches	Tourism	500
ICT and E-Governance	IT ITES	370
Housing Project	Construction	107
Multi-Level Car Parks	Construction	200
Green Spaces	Construction	180

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1.1.6. Youth Aspiration

The key findings of the youth aspirations include youths' exposure to vocational training and educational aspirations, job aspirations, training aspirations and self-employment.

Respondent Profile

Profile	Details
Total Sample Size	384
Gender Profile	Male- 58% Female- 42%
Age Group	15-24 years
Education Level (top 3)	Senior Secondary schooling(Class 9 to 10)- 34.7% Higher secondary schooling with arts(Class 11 to 12)- 15.2% Higher secondary schooling with science (Class 11 to 12)- 13.9%
APL/BPL/AAY/Don't know	APL-2 % BPL- 96% AAY- 1% Don't know- 1 %
Occupational Profile (top 3)	Agriculture (32.2%), Labourer outside village/town (12.2%), Own business (8.7%)

Exposure to Vocational Training and Educational Aspiration

Regarding the exposure to vocational training, most respondents reported that they had not completed any vocational training course. Overall, ~98% of the respondents had not enrolled in vocational training courses.

Of the total respondents who underwent vocational training (which is ~2%), majority were from ITI (64%) and polytechnics (7%).

Further, the respondents were asked about the level of education they wished to attain. Nearly three-fourth of the respondents (74%) aspired to attain graduation and post-graduation levels of education. The desire to attain technical education was relatively low, with only 22% of the respondents choosing it.

Figure 14 : Percentage of respondents who completed vocational training courses - Visakhapatnam
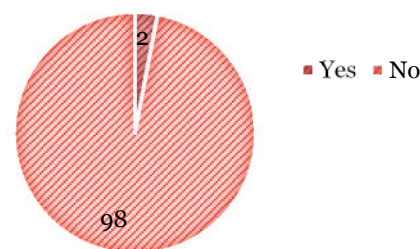
Figure 15: Percentage of respondents who had completed courses in vocational training - Visakhapatnam

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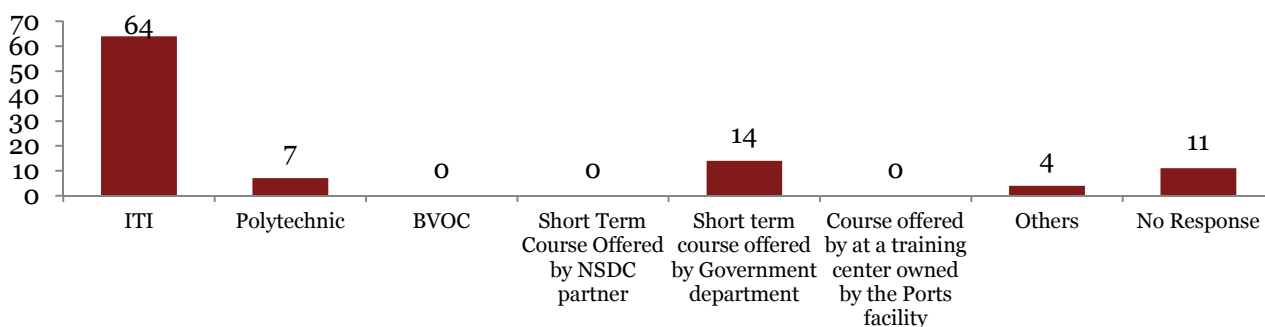
Job Aspiration

One of the important findings of the survey has been the complete preference for wage employment over self-employment among the youth of the district, wherein all of the respondents reported to have preferred wage employment.

The respondents were further asked to identify the factors important for securing employment in the area of interest. Half (50%) of the respondents identified job opportunities as the most important factor for securing employment. followed by computer skills (43%), English speaking skills (41%) and industry specific skills (22%).

Figure 16: Percentage of respondents aspiring for wage and self-employment - Visakhapatnam

- ■ Wage employment (Job)
- ■ Self-Employment (Enterprise)

100

Regarding the job aspiration of the respondents, after completion of education or training, it can be observed that there is a demand for

Figure 17: Factors important for securing employment in area of interest (%) - Visakhapatnam
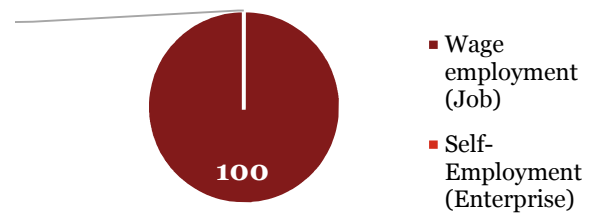
Figure 18: Desired job profile after completion of education/training - Visakhapatnam

services sector with 34% aspiring for entry level jobs in service sector and 16% aspiring for middle level jobs. This is followed by middle level jobs (24%) and entry level jobs (15%) in manufacturing industry.

Further, Education (37%) Logistics & transport (18%), tourism (13%) and BFSI (12%) have been identified as sectors in which the respondents feel that they are mostly likely to get job which is in alignment with their aspiration for a job in the service sector space.

Figure 19: Sectors in which respondents' foresee getting a desired job (%) - Visakhapatnam

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Out of total respondents, 98% preferred to work in the same state. It is important to note that 88% of the respondents preferred to work in the same district and 10% expressed willingness to migrate to other districts in the same state, suggesting lack of flexibility among the youth of the district.

For majority of the respondents (39%) the monthly salary expectation was INR 15,000-20,000. And for 32% of respondents the expected salary was reported to be range of 10,000-15,000 per month.

Figure 21: Monthly salary expectation of respondents - Visakhapatnam
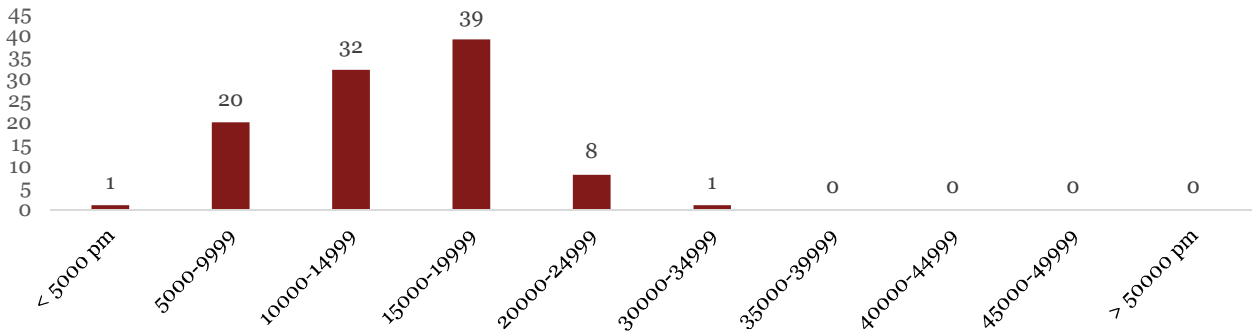
Figure 20: Preferred work location of candidates - Visakhapatnam
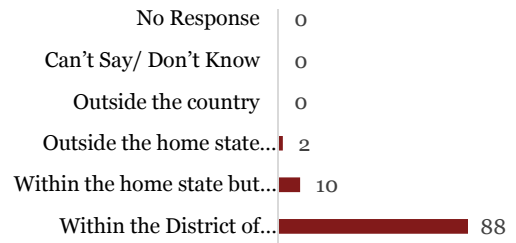
Figure 22: Willingness to participate in trainings (%) - Visakhapatnam
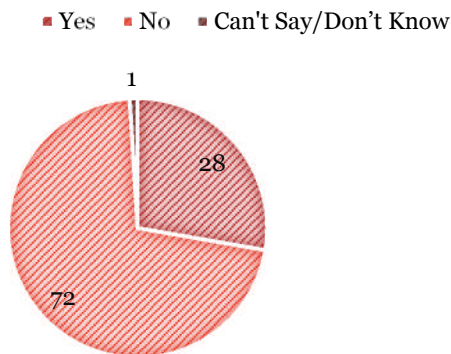
Training Aspiration

Regarding willingness of the respondents to participate in the training programme in the next one year, 28% expressed interest whereas 72% expressed dis-interest.

Further, when enquired about the key focus areas of skill training, 33% of respondents reported that emphasis must be placed on life skills followed by technical skills (28%) and proficiency in English (24%).

Figure 23: Focus area on skills training - Visakhapatnam

Overall there is demand for training in hospitality (47%), port operations (40%), food processing (34%) and logistics (31%).

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Figure 24: Willingness of respondents to participate in trainings of different sectors - Visakhapatnam

Bar chart values: Port Operations 4, Shipping Operations 2, Ship Building/Repair 3, Logistics 11, Fishing 5, Food Processing 12, Tourism 8, Hospitality 5
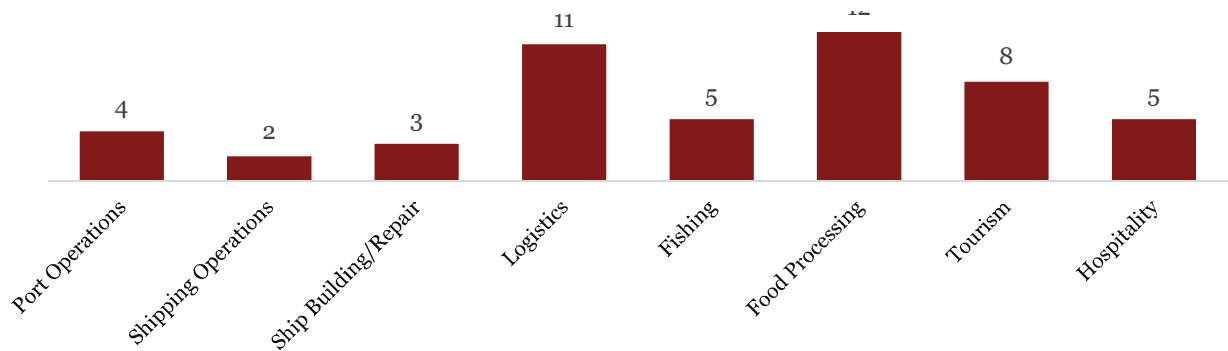
Self-Employment

Regarding the current status of the Entrepreneurial Ventures of the respondents who aspired for self-employment, 6% were in family business, 21% have already established enterprises and 73% were in the ideation stage.

Further, only 45% of the respondents expressed a desire to undergo a training programme for enhancing their entrepreneurial skills.

Retail business (36%), food processing (21%) and trading (18%), manufacturing (engineering trades) (9%) have been identified as the most preferred sectors for setting up own enterprises.

Figure 25: Current Status of Entrepreneurial Venture (%) - Visakhapatnam

Bar chart values: Looking to set up : In Ideation phase 73, Already established 21, Family Business 6, Can't Say/ Don't Know 0

Figure 26: Interested in skill development for enhancing entrepreneurial skills (%) - Visakhapatnam

Pie chart: 55, 45

Figure 27: Sectors for establishing enterprises - Visakhapatnam

Horizontal bar chart values: DK/CS 3, Professional Services (CA, Lawyer, etc) 3, IT/ITeS Services 0, Retail business 36, Manufacturing (Engineering Trades) 9, Logistics 6, Trading 18, Food Processing 21, Tour operations 0, Hospitality Industry 3

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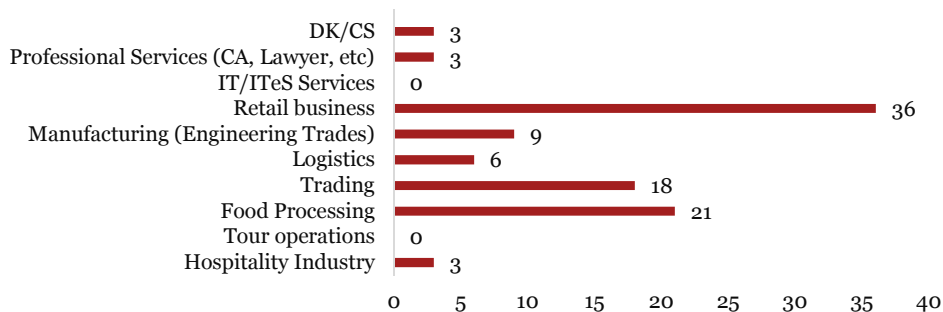
1.1.7. *Training Infrastructure*

Type of training infrastructure	Total number of institutions	No of trades	Top 5 trades based on enrolment and seat capacity
Industrial Training Institutes (ITIs)	65	31	Fitter, Electrician, Welder, MMV, COPA
Polytechnic	21	15	Civil Engineering, Electrical And Electronics Engineering, Mechanical Engineering, Civil Engineering Electronics & Communication Engineering
DDU-GKY: PIAs	8	-	
PMKVY	9	29	Retail Sales Associate, Field Technician – Computer and Peripherals, Domestic Data Entry Operator, Modeller
Directorate General of Shipping Courses	1	2	B.E.-Marine Engineering, Graduate in Marine Engineering (G.M.E)
Central Institute of Fisheries Nautical and Engineering Training (CIFNET)	1	43	Shore Mechanics, Advanced Diploma in Fishing Gear technology, Advanced Fishing Technology, Elementary Fishing Technology
APSSDC Centres of Excellence (Siemens)	4	18	
APSSDC – Youth Training Centre	4	12	Electrician, AC and Refrigeration, BPO, Sewing Machine Operator
Employability Skill Centres	37	3-4	Communication, IT, SAP, ERP
Visakha Institute of Port Management	1	60	Port Equipment Maintenance, Fire and Safety

The Training infrastructure in the district is dominated by the ITIs and Polytechnics. However, the state Govt. has initiated trainings through Centres of Excellence in partnership with Siemens in a hub and spoke model in high end Manufacturing trades.

- ITI-s - There are 65 ITI's providing training in 31 Different trades.
- Polytechinics – Core engineering sectors like Civil, Electrical & Electronics, Electronics & Communication and Mechanical remain the most dominant trades, however, new age trades like Hotel Management, Mechatronics, Production Technology, etc. are also gaining traction.
- PMKVY & PMKK – The Trades are focussed on the BPO sector with a sanctioned strength of around 1080 per year. No PMKKs have been sanctioned at present.
- CIFNET- Cifnet has been providing short term courses (3 days - 2 weeks) in its campus on various trades focussing on increased production.
- DG-Shipping- The DG Shipping courses available are in the Engineering category.

- APSSDC-Siemens – A centre of Excellence and three T-SDIs giving advanced lab training in 18 different trades in manufacturing have been set up in partnership with Siemens.
- APSSDC-Tribal Welfare – To cater to the tribal areas, three Youth Training Centres are being run in partnership with the Tribal Welfare Department. The trades are currently oriented towards repair /servicing sectors and BPO.
- APSSDC-ESCs – To boost the employability of college students in the districts, Employability Skills Centres have been established. These provide trainings across the program in Soft Skills and Information Technology. In addition, a core skill course in the field of Degree like Computer Programming, SAP,ERP etc are also being imparted in offline-online modes.
- Visakha Institute of Port Management – The Visakha Container Terminal provides training (Diplomas) in Port related activites - one of the very few in the country.

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1.2. *East Godavari*

About East Godavari

Natural resources form the mainstay of the district and its residents, as 55.7% of the total working population of East Godavari is employed in agriculture, with the district being the largest producer of paddy, coconut and banana in Andhra Pradesh. East Godavari District enjoys the unique distinction of having marine, inland and brackish water pisciculture[8] and the district thrives on tourism as it is bestowed with beaches, mangroves, and backwaters, to name a few. The key industries in the district include agro-based industries like rice mills, coir, soya bean oil, rice bran oil, and has rich mineral deposits including graphite, pegmatite along with the availability of natural gas deposits.

1.2.1. *Demographic Profile[9]*

Indicator	Value
Total population (2011)	51,54,296
Decadal rate of growth of population (2001-11)	5%
Rural population	75%
Female population	50%
SC Population	18%
ST Population	4%
Workforce participation (As % of total population)	41%
Main Workers (As % of total population)	34%
Marginal (As % of total population)	7%
Non-workers (As % of total population)	59%
*Number of people with vocational training in the age group of 15+[10]	56 per 1,000

Population Trends[11]

Figure 28: Population trend in East Godavari (2001-2021)

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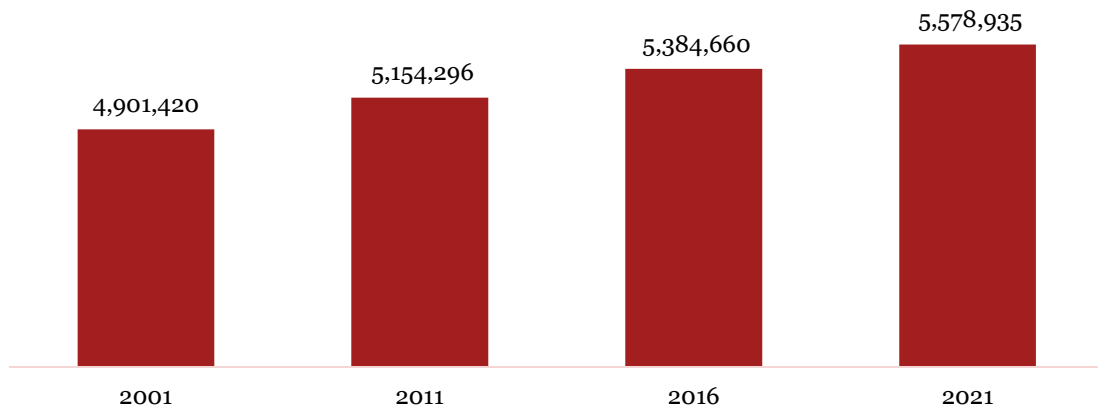
[8] Brief Industrial Profile of East Godavari District, MSME

[9] Census 2011

[10] Employment and Unemployment Survey, District Level Estimates for Andhra Pradesh - 2014

[11] Based on census 2001 and 2011

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Figure 29: Population Pyramid East Godavari - 2011
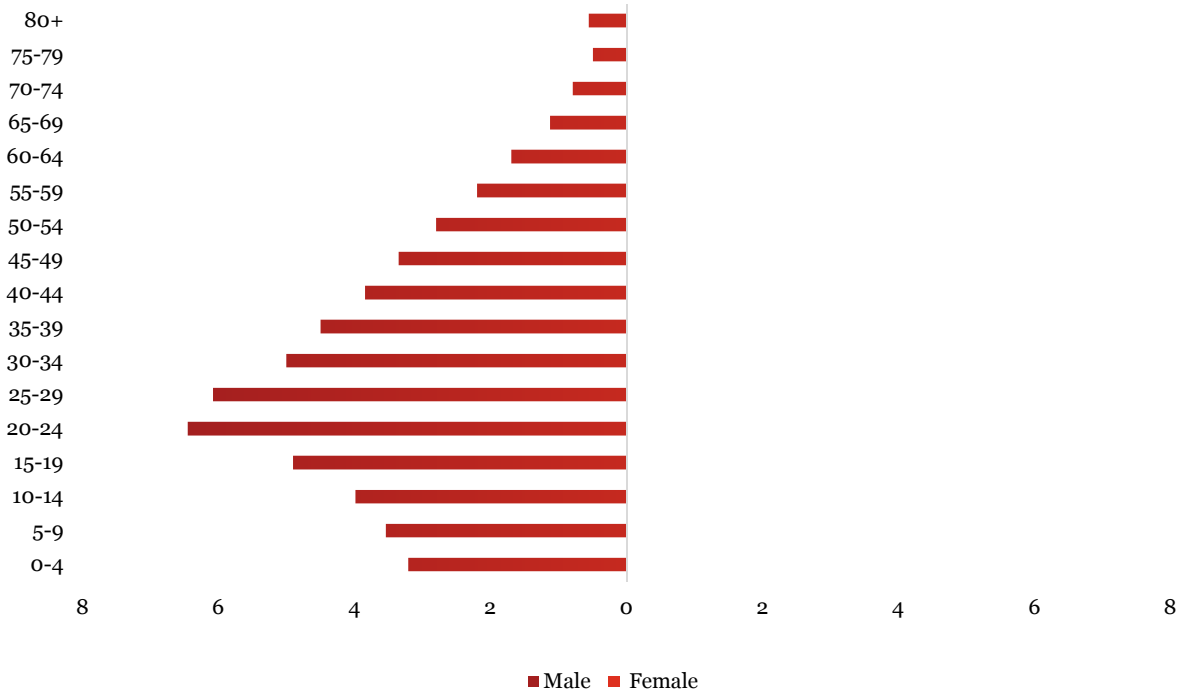
East Godavari will gradually have an increased proportion of population over 35 Years, indicating aging of the population. Estimating the population for the period 2001-21 (10 years), the population is estimated to be 5,384,660 and 5,578,935 in 2016 and 2021 respectively. The projected absolute growth in the population from 2016 to 2021 is 3%

Literacy rates
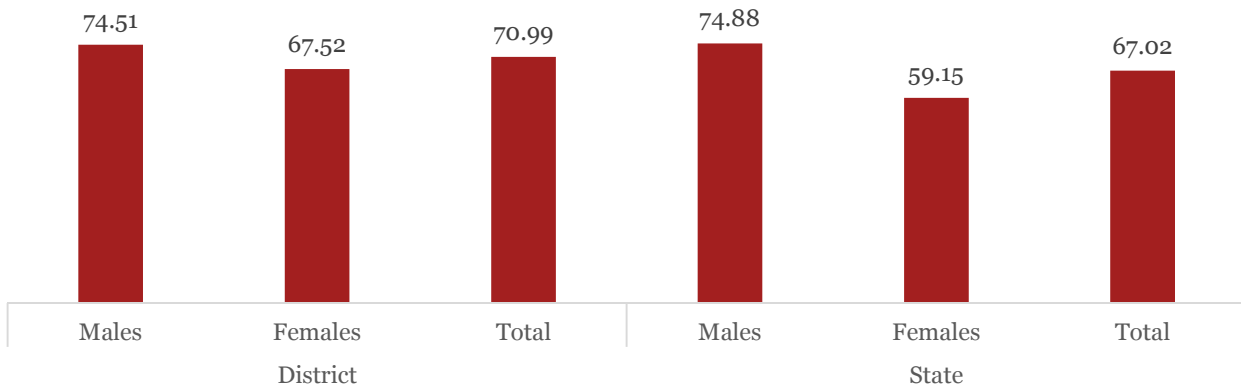
The total literacy rate of East Godavari, as per Census 2011, is approximately 71%, which is higher than the state's literacy rate of 67%. Also, the female literacy rate of East Godavari is 67.34% though lower than the male literacy rate, (which is 74.56), is much higher than the state's female literacy rate in 2011.

Age-specific population trends and education level for 2011[12]

As per the Census 2011, the population in the age-group of 15 to 24 years was 1,001,200 (15.44% of the overall population). Using proportional method, the population in the age group of 15-59 years is estimated to be

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[12] Based on Census 2001 and 2011

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3,531,644 and 3,659,063 in 2016 and 2021 respectively. The projected absolute growth in the population from 2016 to 2021 is 4%.

Figure 30: Growth trend of population in the age group 15-59 years in East Godavari
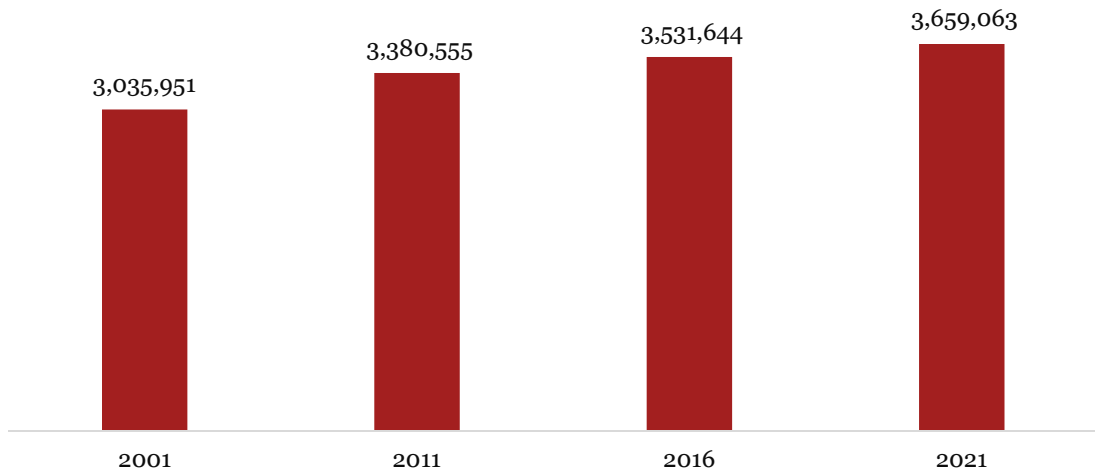
Figure 31: Age specific population in East Godavari (15-59 years)
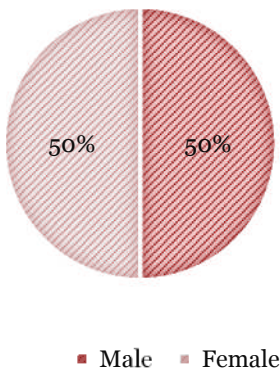
Figure 32: Age specific population in East Godavari (15-24 years)
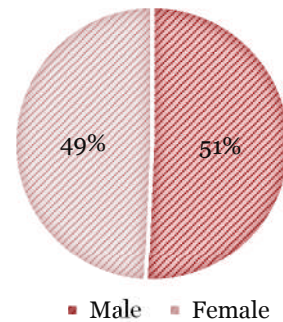
The share of population of male and female in total population of East Godavari is around 50 % each in both the age categories-15-59 and 15-24 years.

Figure 33 Age Specific Education Levels (15-59 Yrs.)

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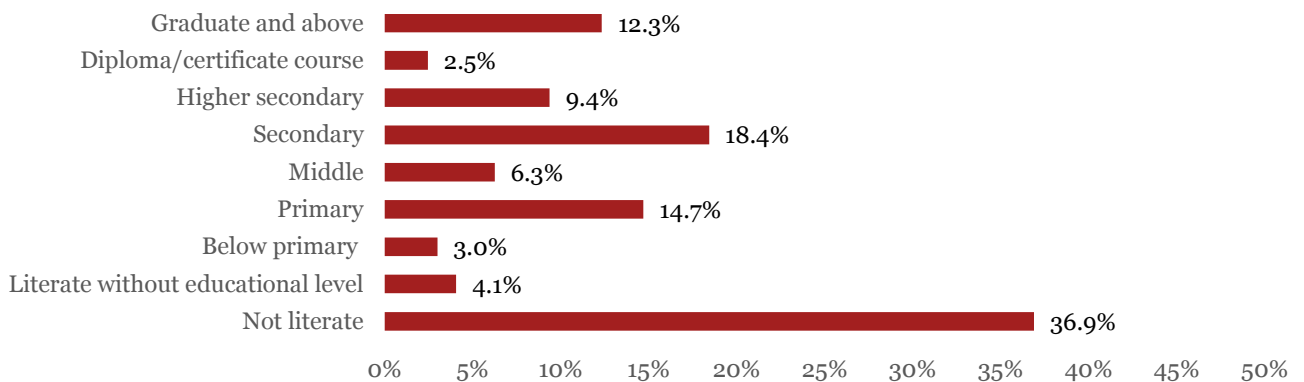
According to Census data, for the age category of 15-59 years, 36.9% of the population of East Godavari was not literate, 4.1% the age category of 15-59 years were literate without any educational qualification, 3% had attended school till below primary level and 14.7% had completed schooling up to primary level. 6.3% of the population in the 15-59 years category had completed schooling up to the middle level, whereas around 18.4% of the population in 15-59 years category had been educated till secondary. Only 2.5% of the population of this district had done a certificate/diploma course and 12.3% had at least graduated, indicating that a graduate/post-graduate degree was more sought after than a certificate/diploma.

For the age category of 15-24 years, 9.9% of the population of East Godavari was not literate, 3.3% were literate without any educational qualification, 3.4% had attended school till below primary level and 19.4% had completed schooling only up to primary level. 12.3% of the population in 15-24 years category had done schooling up to the middle level, whereas around 27.1% had been educated till secondary level. Only 2.5% of the population of this district in 15-24 years category had done a certificate/diploma course and 6.9% had at least completed graduation.

Figure 34 Age-Specific Education Level in East Godavari (15-24 Yrs.)
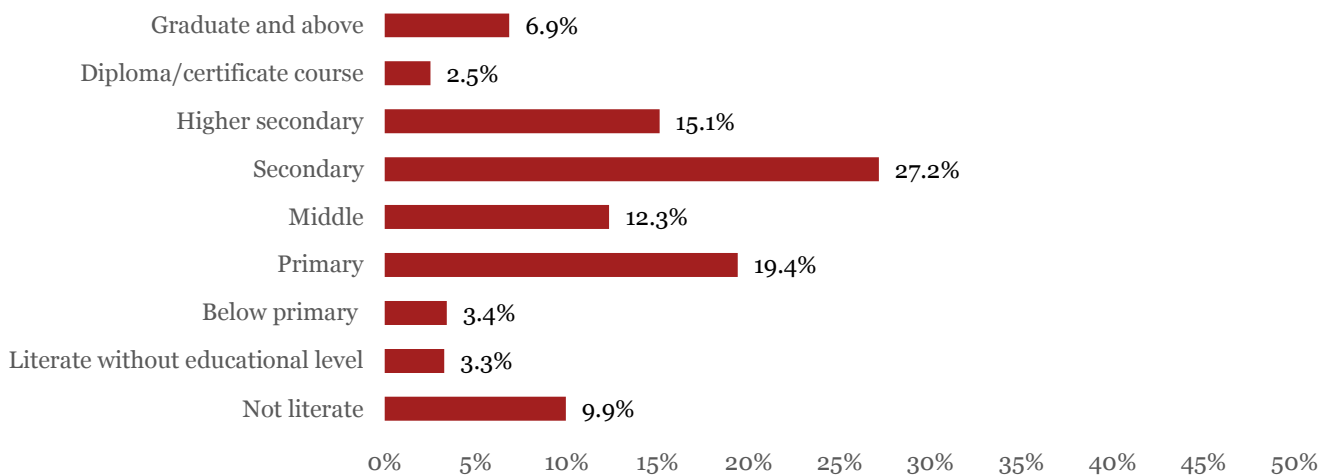
Age specific distribution of workers and educational level

Figure 35: Age-specific distribution of workers in East Godavari (15-24 yr)
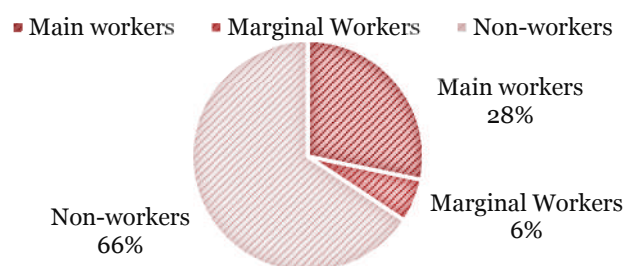
66% of the population in the age group of 15-24 years are non-workers. 28% of the population are main-workers, whereas 6% are engaged in marginal work i.e. work for 3-6 months during the year.

Amongst the 31,351 marginal workers in the age group of 15-24 years, 471 (2%) hold a technical degree or diploma equal to degree and 1,223 (4%) are graduate and above other than technical degree. 916 (3%) have a diploma or a certificate (not equal to degree). 11,211 (36%) are educated up to the matric/secondary level and 18,290 (58%)

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are literate with an educational qualification of below matric/secondary level, 7,249 (23%) marginal workers in this age group are not literate.

Figure 36 Education Level of Marginal Workers in East Godavari (15-24 Yrs)
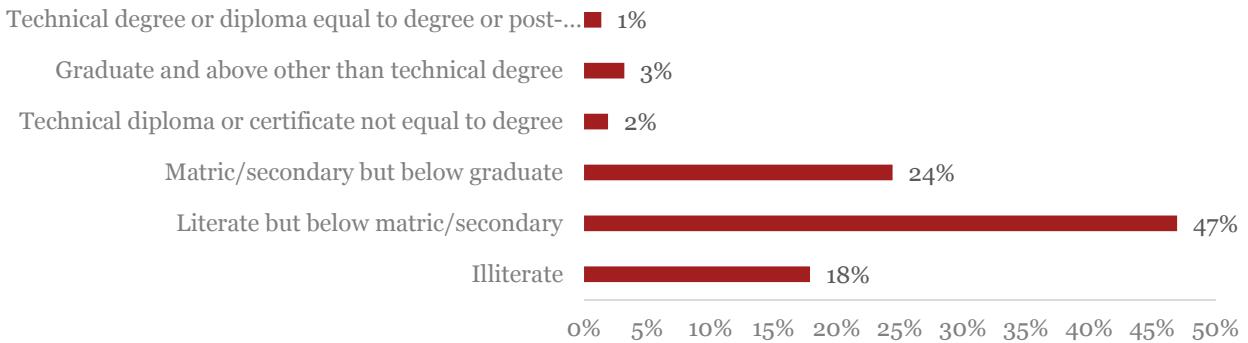
Figure 37: Educational level for main workers available for work in East Godavari (15-24 years)
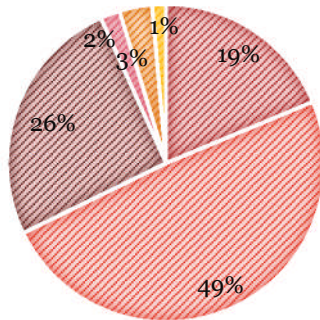
- Illiterate
- Literate but below matric/secondary
- Matric/secondary but below graduate
- Technical diploma or certificate not equal to degree
- Graduate and above other than technical degree
- Technical degree or diploma equal to degree or post-graduate degree

categories.

From Census 2011, we find that the proportion of main workers who are illiterate (in the age category 15-24 years) is slightly more (4 percentage point difference between the two) than the proportion of marginal workers available for work and who are illiterate. We also find that the proportion of main workers who are literate but below matric/secondary (in the age category 15-24 years) is slightly more (3 percentage point difference between the two) than the proportion of marginal workers who are available for work and are literate but below matric/secondary. The proportion of main workers who are matric/secondary but below graduate (in the age category 15-24 years) is slightly less (4 percentage point difference between the two) than the proportion of marginal workers who are available for work and are matric/secondary but below graduate. For the remaining three educational levels, we find that the population shares are more or less the same across the two worker

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Figure 38: Education level of non-workers available for work in East Godavari (15-24 years)

Category	Percentage
Technical degree or diploma equal to degree or post-...	13.8%
Graduate and above other than technical degree	11.6%
Technical diploma or certificate not equal to degree	5.9%
Matric/secondary but below graduate	44.9%
Literate but below matric/secondary	22.4%
Not literate	4.7%

(x-axis: 0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50%)
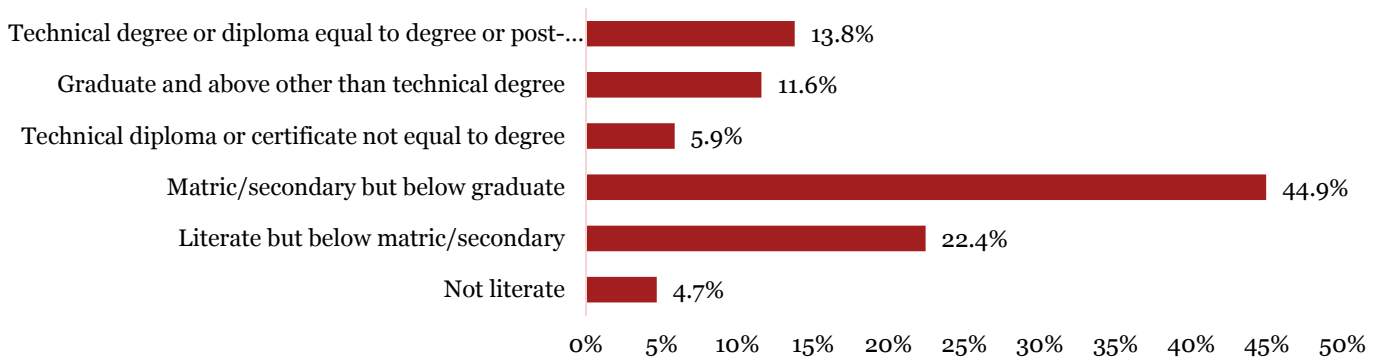
Amongst the 106,858 non-workers in the age group of 15-24 years, 14,732 (14%) hold a technical degree or diploma equal to degree and 12,395 (12%) are graduate and above other than technical degree. 6,256 (6%) have a diploma or a certificate (not equal to degree). About 48,021 (45%) are educated up to the matric/secondary level and 23,973 (22%) are literate with an educational qualification of below matric/secondary level. Over 4,998 (5%) non-marginal workers in this age group are not literate.

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1.2.2. *Key Economic Drivers*

The Gross Domestic Product[13] of the district (at constant prices- 2004-05) was INR 23,999.81 crore in 2012-13 and it has steadily grown at a CAGR of 4.11% over the period 2004-05 to 2012-13. The sectoral break up suggests that service sector contribution to district GDP is nearly half (49%) followed by industries sector (30%) which is one third of the total district GDP. Further disaggregation suggests that Trade hotels and restaurants have a share of 15.61% and manufacturing sector has a share of 12% in the district GDP. Both sectors have witnessed impressive growth in their contribution to the district GDP with a growth rate of 24% and 20% between 2004 and 2012.

The main occupation of the district is agriculture, in which more than 24% of the population is engaged. At the same time, more than 60% of the population are non-workers which is a potential labour force.[14]

The key economic drivers of the district are illustrated below:

Figure 39: Sectoral breakup of East Godavari district GDP at constant prices (2004-05)
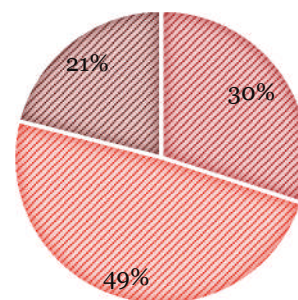
■ Industry   ■ Services   ■ Agriculture

Agriculture and Allied	• The main occupation of the district is agriculture where more than 24% of the population is engage • It is the largest producer of Coconut and Banana in A.P • With a coastline of 144 kms, it has a unique distinction of having marine, inland and brackish water pisciculture
Port and Maritime	• Presence of Kakinada Deep Water Port and Anchorage Port • New port named Kakinada Port Special Economic Zone (KPSEZ) being developed by GMR • Due to the seaport and port-based industry, Kakinada has a diverse • industrial presence from textile to auto parts, from fishing to steel
Industrial Development	• Paper, Coir, Fertilisers, pharmaceutical and Edible Oil Industries along with Food Processing units (Shrimp, Fish) are dominant industries • Major hub for Oil and Natural Gas generation and Exploration
Infrastructure Development	• Kakinada has been identified to be developed as a SMART City • Kakinada Special Economic Zone being developed to be spread across 10500 acres
Tourism	• Replete with natural beauty, East Godavari with its beaches, Backwaters, temples, Buddhist Temples, Mangroves, wildlife sanctuary • Government plans on investing 2186 Crores (Tourism Policy 2015-20)

1.2.3. *Priority Sectors*

In East Godavari, the priority sectors that have been identified are **Port and Maritime sector** and other sectors: **logistics, fisheries, tourism and construction.** Other sectors that have been identified as priority

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[13] Andhra Pradesh State Planning and Development Society
[14] Brief Industrial profile of East Godavri District, MSME Development Institute

sectors from the point of view of their contribution to district GDP are **agriculture, manufacturing and food processing.**

1.2.4. *About Port*

Ports & Maritime				
Major Ports: 0		**Minor Ports:** 1		**Shipyards:** 1
Details				
Visakhapatnam Port Trust				
Operations:	Land Lord Port model (PPP)		*Capacity*	12.7 MTPA
Key Cargo	Coal, fertilizer, rice, sugar Alumina		*No of berths:*	6
			Draft	12.5
Description and key Trend	Originally developed by the Govt. of AP, the Kakinada Port was privatized in 1999. The hinterland is primarily the districts of East and West Godavari, Krishna, Guntur and the entire Telangana region. Primary cargoes of this region include agricultural products, minerals, coal and fertilizers.			
Terminal Operations				
	Bothra Brothers		Vedanta	
Annual Capacity	Coal- 8 MT Fertilizer- 8 MT Container- 12,000 TEUs		Ship unloader- 400 TPH Silo storage- 67500 MT Bulk loading- 400T/Day	
Type of Cargo handled	Coal, fertilizer, rice, sugar		Alumina	
High Demand Job Roles	Harbor mobile crane operator, mechanics-repair of crane, electrician, drive, technician-repair of crane, welder, gas cutter		Technicians: electrical and mechanical, PLC operator	
Shipyard				
Infrastructure			Floating dock, slipway, floating jetty	
A joint venture between Sembawang Shipyard Pte Ltd and Kakinada Seaports Limited, is an integrated marine and offshore facility. SKL is operating within the vicinity of Kakinada Seaports and offers ship-owners and offshore operators, a one-stop integrated offshore service facility including the repairs and servicing of offshore vessels and ships, newbuilding, riser/equipment repairs and modules fabrication.				
Job Roles: Mechanical/steel fitter, brazers, machinists for lathe, drilling and cutting, dock rigger, blaster, painter, fire patrolling, fire watchmen, electrician, scoffolder				

1.2.5. *Investments*

According to the information provided by the District Industries Centre, East Godavari, the proposed investments in the district for the year 2015-16 amount to INR 14,472 Crores and vary across a range of sectors which include Food, Agro and marine products, pharmaceuticals to name a few.

In the port and maritime sector, an LNG project with the capacity of 2.5 MMTPA and worth INR 1,600 Crores has been proposed for 2018. The key players for the proposed project are Andhra Pradesh Gas Distribution Corporation (APGDC), Shell and GDF Suez. It is expected to generate employment for 400 persons in the construction phase and 50 persons in the operations phase.

Some significant investments are also proposed in the petrochemical space, and these include operationalisation of Petrochemical Complex worth INR 30,000 Crores by 2021 by GAIL and ONGC, who are expected to invest INR 34,000 Crores to bring into production the Krishna-Godavari basin oil and gas field by 2020.

Details of some of the key investments proposed for the district are given below:

Table 2: Proposed Key Investments, Source: District Industries Centre, East Godavari

Sector	Proposed Investment (INR Cr)	Number of Projects	Expected Employment	Key Players
Port & Maritime	1,600	1	450 persons	APGDC, Shell, GDF Suez
Petrochemical and Gas Production	64,000	2	-	ONGC, GAIL
Smart City	1,993	69	-	Kakinada Municipal Corporation, Kakinada Smart City Corporation
Pharmaceuticals	809	2	4,050 persons	Tyche Industries Ltd., Divi's Laboratories
Food Agro and Marine products	455	6	2,132 persons	Nekkanti Sea Foods Ltd., Devi Sea Foods, Avanti Feeds
Other Projects Registered with DIC Data	2,688	6	4,190 persons	Aparna Enterprises, Synergy Bio Refineries

Kakinada, the district headquarter of East Godavari has been selected as one of the SMART cities. The total cost of developing Kakinada SMART City is estimated to be around INR 1,993.03 Crores. Some of the upcoming projects under the SMART City initiative and the sectors in which nature of employment which is expected to be generated are given in the table below.

Table 3: Proposed Projects under SMART City initiative-Kakinada, Source: Kakinada Smart City Corporation

Projects	Sector	Cost (In Cr.)	Likely Opportunities
Godavari Kalakshetrm	Tourism	30.46	Construction Workers, Artists
Beautification of Commercial canal for Green Waterfront Development (From Jagannaickpur bridge to Indrapalem Lock)	Tourism	92.00	Construction Workers
Development of Boat Building Yard	Boatyard	26.56	Welders, Electricians, Boat Repair Mechanics
Construction of Cold Storage at Yetimoga	Fisheries	5.00	Construction Workers
Hygienic markets for fish processing and packing units	Fisheries	2.60	
Skill Development Centre at Ramaraopeta	Skills	1.50	Construction Workers, Trainers
Skill Development Centre for Women	Skills	1.00	Construction Workers, Trainers

Projects	Sector	Cost (In Cr.)	Likely Opportunities
Solar rooftops for all govt. buildings in East Godavari (The total rooftop area available under ADB is 5,13,950 sq ft and it is possible to install 5 MW capacity solar rooftop systems)	Solar Energy	40.00	Solar Panel Technicians
Solar panels on roof top of apartments in Area Based Development*	Solar Energy	112.80	Solar Panel Technicians

1.2.6. *Youth Aspiration*

The key findings of the youth aspirations are include youths' exposure to vocational training and educational aspiration, job aspirations, training aspirations and self-employment.

Respondent Profile
The table below provides an overview of the respondent profile:

Profile	Details
Total Sample Size	384
Gender Profile	Male- 54% Female- 46%
Age Group	15-24 years
Education Level (top 3)	Senior Secondary schooling(Class 9 to 10)- 32.6 % Higher secondary schooling with science(Class 11 to 12)- 18.6% Higher secondary schooling with arts(Class 11 to 12)- 17.8%
APL/BPL/AAY/Don't know (118)	APL-3 % BPL- 95% AAY- 1% Don't know- 1 %
Occupational Profile (top 3) (112)	Agriculture (24.3%), Labourer outside village/town (20.6%), Agricultural labourer (14%)s

Exposure to Vocational Training and Educational Aspiration

Regarding the exposure to the vocational trainings most respondents reported that they had not completed any vocational training course. Overall, ~97% of the respondents had not enrolled in vocational training courses (Figure 42).

Of the total respondents who underwent vocational training (which is ~3%), majority were from ITI (40%) and polytechnic (33%). Figure 44 exhibits the percentage of respondents who completed different types of courses as part of their vocational training.

Figure 40: Percentage of respondents who completed vocational training course – East Godavari

3

97

■ Yes ■ No
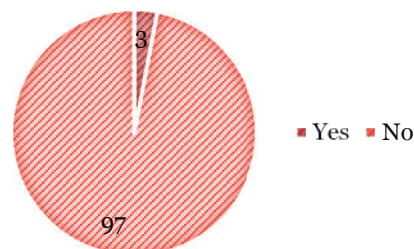
Further, the respondents were asked level about the level educationthey wished to attain. Nearly three-fourth of the respondents (76%) aspired to attain graduation and post-graduation level of education. The desire to attain technical education is relatively low with only 12% aspiring for graduation or post-graduation in technical fields (Figure 43).

Figure 41: Desired level of education - East Godavari

Level	Value
DK/CS	0
Post Master's	1
Post Graduate (Technical)	1
Post Graduate	21
Graduate [Technical]	11
Graduate [General]	55
Higher Secondary	11
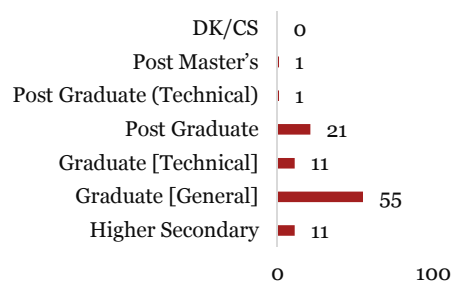
Figure 42: Percentage of respondents who had completed courses in vocational training - East Godavari

Category	Value
ITI	40
Polytechnic	33
BVOC	0
Short Term Course Offered by NSDC partner	0
Short term course offered by Government department	19
Course offered by at a training center owned by the Ports facility	0
Others	5
No Response	2
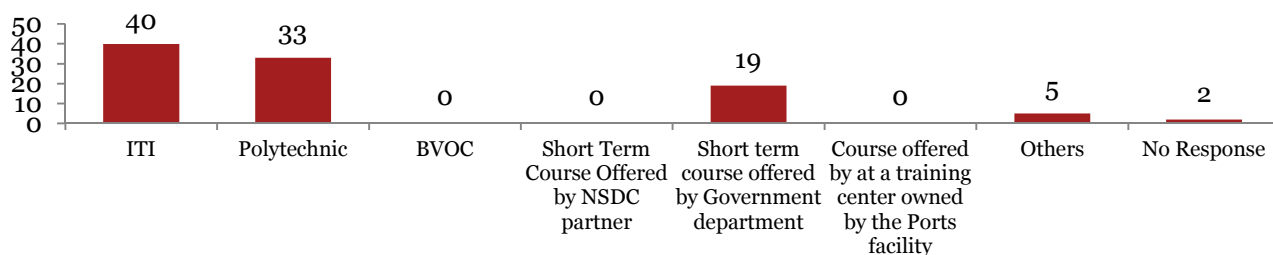
Job Aspiration

One of the important findings of the survey has been the high preference for wage employment over self-employment among the youth of the district. About 92% of the respondents reported to have preferred wage employment over self-employment (Figure 45).

The respondents were further asked to identify the factors important for securing employment in the area of interest.

One-third (33%) of the respondents identified computer skills as the most important factor for securing employment followed by job opportunities (26%), English speaking skills (25%) and industry specific skills (22%) (Figure 46).

Figure 43: Percentage of respondents aspiring for wage and self-employment - East Godavari

Category	Value
Wage employment (Job)	92
Self-Employment (Enterprise)	8

Figure 44: Factors important for securing employment in area of interest (%) - East Godavari

Factor	Value
Industry specific skillls	22
Computer skills	(27)
English speaking skills	(25)
Good personality	8
Degree or certificate in the area of work	3
Interest in the area	1
Job opportunities	(26)
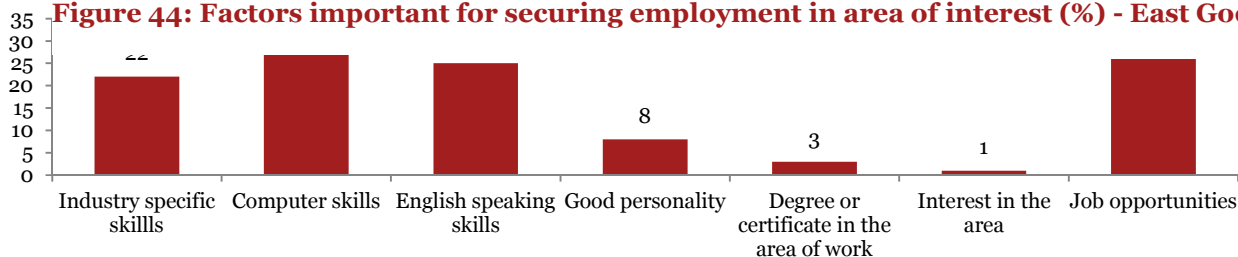
Regarding job aspiration of the respondents, after completion of education or training, it can be observed that there is a demand for services sector with 28% aspiring for middle level jobs and 22% aspiring for entry level jobs in service sector. This is followed by middle level jobs in manufacturing industry (19%), senior level jobs in services sector (11%) and manufacturing industry (11%) (Figure 47).

Further, Education (43%) Logistics & transport (18%) have been identified as sectors in which the respondents feel that they are mostly likely to get job which is in alignment with their aspiration for a job in the service sector space. The details of other sectors are mentioned in Figure 48.

Figure 45: Desired job profile after completion of education/training - East Godavari

Category	Value
Don't know/Can't say	1
Senior level job in services sector...	11
Senior level job in manufacturing...	11
Middle level job in services...	28
Middle level Job in a...	19
Entry level job in services sector	22
Entry Level job in a...	6
Employment in agriculture sector	1
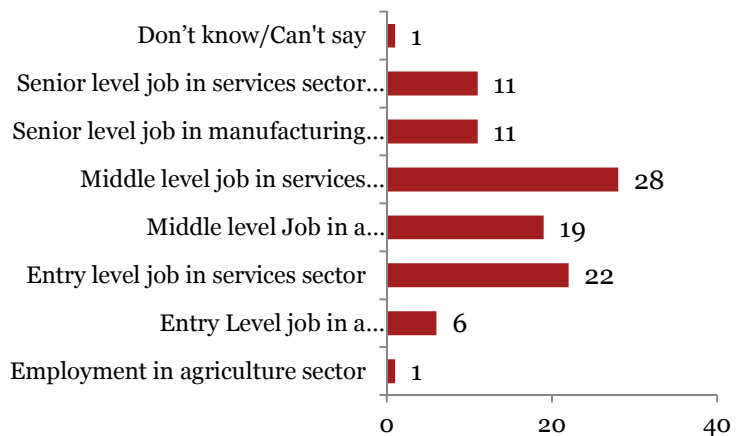
Figure 46: Sectors in which respondents' foresee getting a desired job (%) - East Godavari

Sector	Value
Education	43
BFSI	10
IT and ITeS	4
Agriculture	6
Food Processing	0
Fishing	0
Tourism	7
Hospitality	1
Ship Building	0
Ship Breaking	2
Ports Operation	2
Construction	3
Logistics &...	18
Manufacturing	2
Retail	0
Agriculture	0
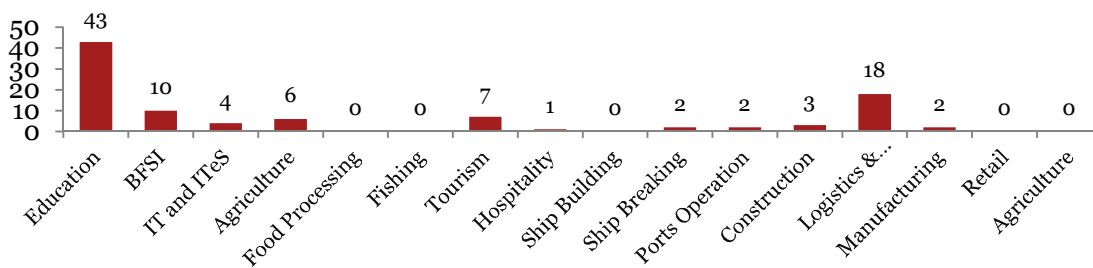
Out of total respondents, 97% preferred to work in the same state. It is important to note that over half of the of the respondents (56%)preferred to work in the same district and 41% expressed willingness to migrate to other districts in the same state suggesting lack of flexibility among the youth of the district.(Figure 49).

For majority of the respondents (46%) the monthly salary expectation was INR 15,000-20,000. And for 30% of respondents the expected salary is reported to be range of 10,000-15,000 per month.

Figure 47: Preferred work location of candidates - East Godavari

Location	Value
No Response	0
Can't Say/ Don't Know	0
Outside the country	2
Outside the home state within the country	1
Within the home state but outside the district...	41
Within the District of residence	56
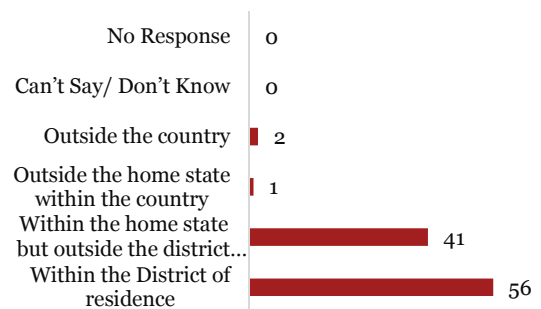
Figure 48: Monthly salary expectation of respondents - East Godavari
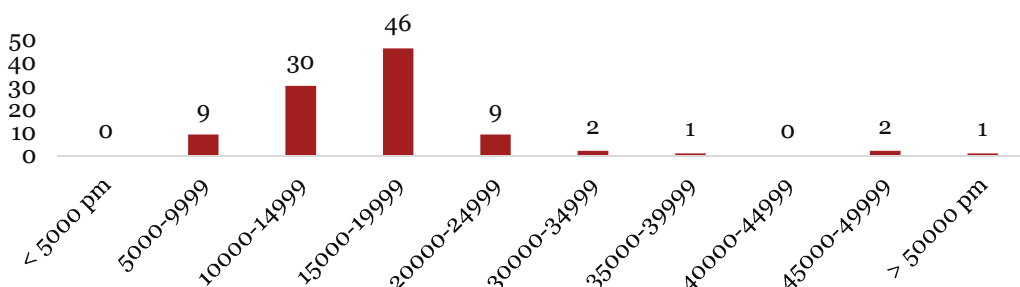
Range	Value
< 5000 pm	0
5000-9999	9
10000-14999	30
15000-19999	46
20000-24999	9
30000-34999	2
35000-39999	1
40000-44999	0
45000-49999	2
> 50000 pm	1

Training Aspiration

Regarding willingness of the respondents to participate in the training programme in the next year, 52% expressed interest whereas 36% expressed dis-interest (Figure 51).

Further, when enquired about the key focus areas of skill training, 39% of respondents reported that emphasis must be laid on life skills followed by proficiency in English (21%), personality development (18%) and technical skills (15%) (Figure 52).

■ Yes   ■ No   ■ Can't Say/Don't Know
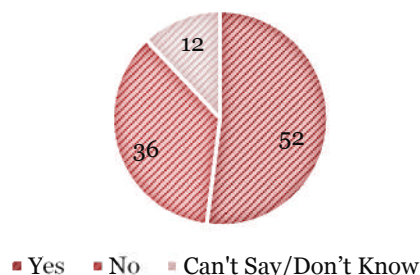
Figure 50: Focus area on skills training - East Godavari
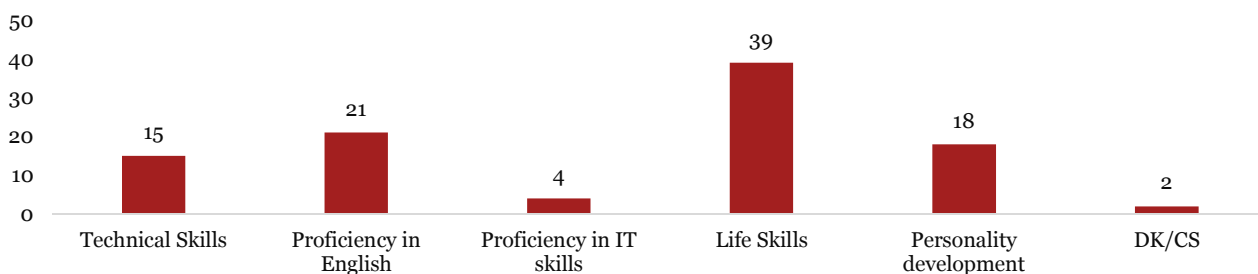
Overall there is demand for training in food processing (12%), hospitality (10%), logistics (9%) and tourism (6%).

Figure 51: Willingness of respondents to participate in trainings of different sectors - East Godavari
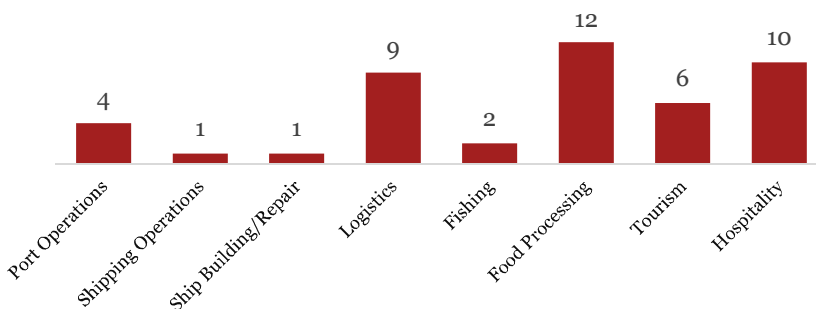
Self-Employment

Regarding current status of the Entrepreneurial Ventures of the respondents who aspired for self-employment, 8% were in family business and 84% were in the ideation stage (Figure 54).

Figure 52: Current Status of Entrepreneurial Venture (%) - East Godavari
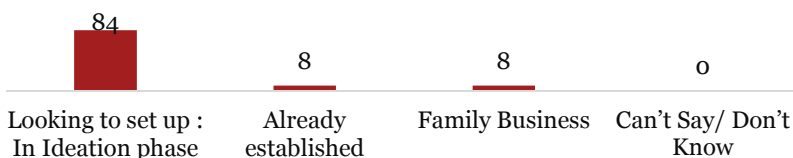
Further, only 49% of the respondents expressed a desire to undergo a training programme for enhancing their entrepreneurial skills (Figure 55).

Retail business (37%), food processing (23%) and trading (18%), manufacturing (engineering trades) (10%) have been identified as most preferred sectors for setting own enterprise.

Figure 53: Interested in skill development for enhancing entrepreneurial skills (%) - East Godavari

51 49

■ Yes ■ No
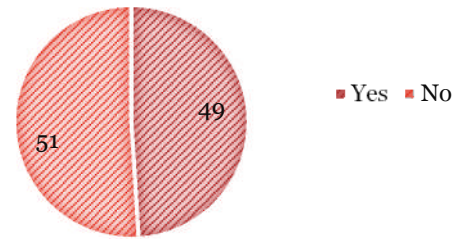
Figure 54: Sectors for establishing enterprise (%) –
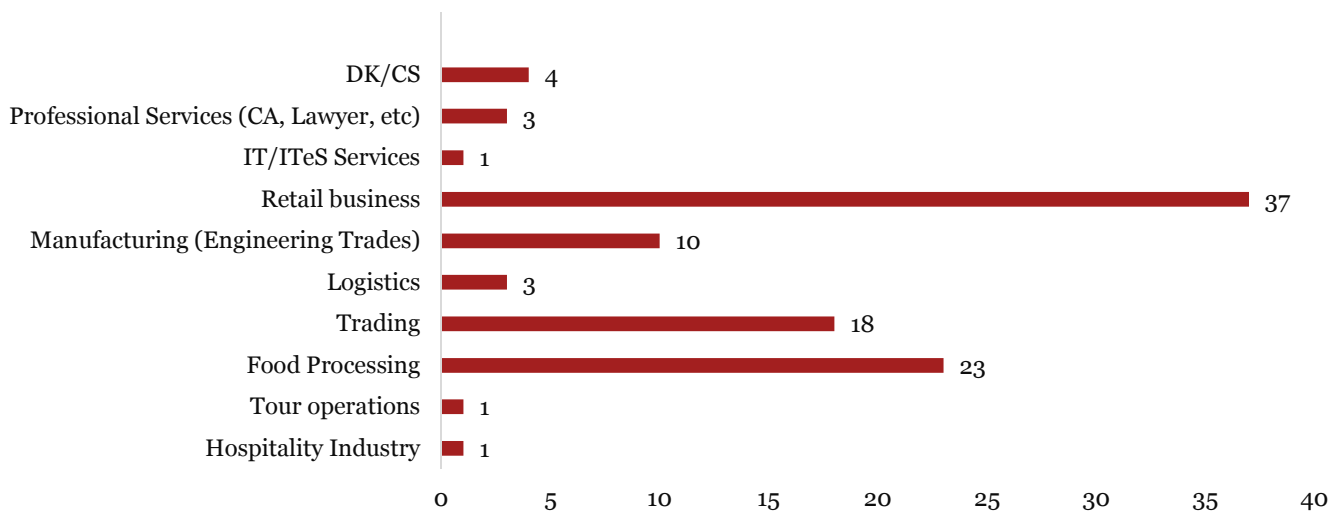
1.2.7. *Training Infrastructure*

Type of training infrastructure	Total number of institutions	No of trades	Top 5 trades based on enrolment and seat capacity
ITI	35	22	Fitter, Electrician, Welder, MMV, COPA
Polytechnic	29	12	Civil Engineering, Electrical And Electronics Engineering, Mechanical Engineering, Civil Engineering Electronics & Communication Engineering
PMKK Training Centre	1	-	-
PMKVY	4	5	Documentation Assistant, F & B Service Steward, Unarmed Security Guard, Sewing Machine Operator
DDU GKY	4	--	
APSSDC Centres of Excellence (Siemens)	5	18	
APSSDC – Youth Training Centre	6	25	Handicraft- Coir, Logistic Executive, SMO, Driving
Employability Skill Centres	24	3-4	Communication, IT, SAP, ERP

The Training infrastructure in the district is dominated by the ITIs and Polytechnics. However, the trades are largely focused on technical and enginering trades.

- ITI-s - There are 35 ITI's providing training in 22 Different trades.
- Polytechnics – Core engineering sectors like Civil, Electrical & Electronics, Electronics & Communication and Mechanical remain the most dominant trades, however, new age trades like Hotel Management, Mechatronics, Production Technology, etc. are also gaining traction. The students prefer to move to full time engineering courses post diploma.
- PMKVY & PMKK – The Trades are focussed on the Hospitality sector with a sanctioned strength of around 200 per year.
- APSSDC-Siemens – A centre of Excellence and three T-SDIs giving advanced lab training in 18 different trades in manufacturing have been set up in partnership with Siemens.
- APSSDC-Tribal Welfare – To cater to the tribal areas, three Youth Training Centres are being run in partnership with the Tribal Welfare Department. The trades are currently oriented towards repair /servicing sectors and BPO.
- APSSDC-ESCs – To boost the employability of college students in the districts, Employability Skills Centres have been established. These provide trainings across the program in Soft Skills and Information Technology. In addition a core skill course in the field of Degree like Computer Programming, SAP,ERP etc are also being imparted in offline-online modes.

2. Skill Gap Assessment, Job Roles and Emerging Job Roles

2.1. Visakhapatnam

2.1.1. Incremental Demand[15] for Skilled & Semi Skilled Manpower

The bifurcation of the unified state of Andhra Pradesh has made Visakhapatnam the most developed and industrialized city in the residual state. With the development of the Capital Region still awaited, it can safely be assumed that Visakhapatnam will remain the engine of economic growth and attract labour across sectors in the near future. An infrastructure and industrialization boom will require a huge volume of skilled resources with a steady decline in requirement in agriculture. Key drivers would include VCIC, Smart Cities, development of PCIPR, CSEZ in Sagarmala and the APSEZs in the various sectors.

Table 4: Incremental Demand for Skilled & Semi Skilled Workers in Visakhapatnam

Sector	2017	2018	2019	2020	2021	2022	Total
Core Sectors							
Ports & Allied	1,429	1,548	1,677	1,817	1,139	1,194	8,804
Logistics	5,909	6,365	6,856	7,386	7,956	8,569	43,041
Tourism	1,772	2,043	2,262	2,517	2,635	2,612	13,841
Construction	5,747	6,095	6,464	6,855	7,271	7,712	40,144
Fisheries		1,221	1,628	1,831	2,034	2,238	8,952
Other Dominant Sectors in the District							
Manufacturing	3,792	4,113	4,479	4,770	5,106	5,248	27,508
Trade (Retail & Wholesale)	4,826	5,170	5,538	5,931	6,354	6,806	34,625
Agriculture	-1,372	-1,371	-1,366	-1,363	-1,360	-1,356	-8,188
TOTAL							168,727

Key trends in Core Sectors

- **Ports and Allied Sectors**: Visakhapatnam and Gangavaram are deep water ports attracting modern vessels of cape size. The shipping sector can be expected to generate at least 8000 skilled jobs owing to the increasing requirement for port-led activities with the transformation of Visakhapatnam as a manufacturing hub.

- **Logistics:** A massive scale of industrialization is expected and the sector is expected to be augmented by two Multi-Modal Logistics Parks in the City to help faster clearance of the goods to make Visakhapatnam a favorable port with minimal turn-around time. The requirement of truckers, crane operators, 3 PL Logistics is naturally expected to increase to meet the demands of the proposed manufacturing growth in the medium term and the construction boom in the short term.

- **Tourism & Hospitality:** Visakhapatnam is the third most popular destination for tourists in the state after Chittoor and East Godavari Districts. With promised investments in areas including marine tourism, religious circuits, cruises beaches and resorts etc.; in the next five years the sector is expected to generate requirement for nearly 13,000 skilled workers especially in niche sectors.

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[15] Incremental Demand Estimates the additional stock of workforce that are to be created given the expected Economic Conditions in the period of study. This may help in estimating requirement for fresh trainings.

- **Construction:** The VCIC, Smart Cities, Metro Rail Project, and investments in the Tourism Sector are expected to drive the demand in the sector as the district will soon go into the construction mode for establishing several industrial parks and SEZs including the PCIPR, Medical City etc., and the supporting residential infrastructure.
- **Fisheries:** The promotion of deep line fishing, cage culture etc. are forecasted to promote the requirement of skilled workers in the fishing industry. The AP fishing policy also envisages the boosting of employment by around 1 Lakh.

Key trends in other Dominant Sectors in the District.

- **Manufacturing**: The Visakhapatnam PCIPR, APIIC SEZ, AP-SEZ, Jawaharlal Nehru Pharmaceutical City, Brandix Apparel City, etc. are some of the investment areas in the manufacturing sector expected to transform the economic nature of the city. Visakhapatnam is expected to have a major requirement for skilled workforce in Apparel, Pharmaceuticals, Petrochemicals, and Automobiles etc. totaling to about 27,000 in numbers during the next five years.
- **Trade**: Trade sector especially is expected to generate large amount of jobs of around 35,000, largely in organized retail to match with the changing characteristics of urbanization in the district. The promotion of tourism and industrial development can have spillover effects on the same.
- **Agriculture**: The impact of the priority of industrialization is set to have a negative impact on agriculture, with a reduction in the workforce in the next five years.

2.1.2. *Gap between Total Demand[16] and Supply of Skilled Manpower in Select Sectors*

The gap in the existing total skilled workforce connotes the gap between the **total requirement of skilled manpower** and **workforce in the district with recognized trainings in the said sectors**.

Figure 55: Gap between Skilled Manpower Requirement and Workforce in District with Trainings in Select Sectors in Visakhapatnam

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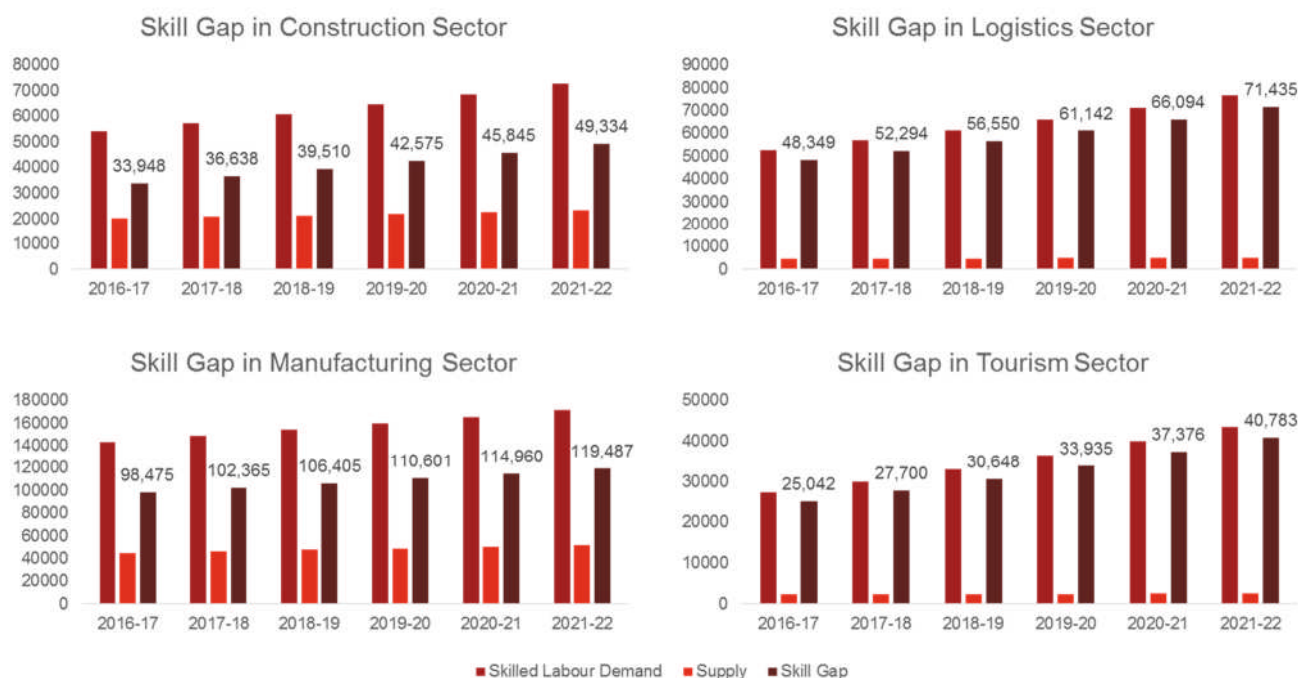
[16] Total Demand refers to the total stock of workforce including the existing workforce in a sector in a district given the expected Economic Conditions in the period of study. This may help in identifying Scope for RPL and Upskilling

- **Construction Sector:** The availability of skilled workforce is larger than other districts with an estimate of nearly 1/3rd of the manpower possessing recognizable trainings. However, at the present capacity, the gap between **total requirement of skilled manpower** and the availability is set to increase by 46% by 2022. Further, by 2022 only 25% of the required workforce demand will be met from within the residents. They will be required to be met either through informal trainings or through immigrant workers.

- **Logistics Sector:** The logistics sector has historically been characterized by its informal nature and this is reflected in the very low levels of recognized skilled workforce with less than 4,000 people with formal recognitions to meet the nearing **total requirement of skilled manpower** of around 52,000 workers. These are very exacerbated by the limited options available recognized trainings and certificates in the sector. The incremental requirement for workforce in the district is expected to increase the gap marginally by more than 50% (24,000 in next five years) indicating extreme shortage.

- **Manufacturing Sector:** Though as a share, close to 1/3rds of the **total requirement of skilled manpower is met**, in absolute numbers, the sector is expected to have a gap of nearly 120,000 skilled workers by 2022.

- **Tourism and Hospitality:** The district has limited capacity and presence of trained individuals, despite being a hotspot for tourism with less than 2,000 individuals with recognized trainings. Given the present trends of increased formalization of the sector and the requirement of skilled workers in the sector, the gap between the **total requirement of skilled manpower** and **availability of workforce with recognized trainings** is set to increase by 4,000 by 2022. The skill gap is set to increase from a present 25,000 to 41,000 by 2022.

2.1.3. *Job Roles High in Demand*

This sections captures the jobs that have been reported to be high in demand in Visakhapatnam by the key stakeholders interviewed during the study, and have been established through secondary analysis. Across the sectors a few of the job roles are susceptible to be impacted by technological disruptions and automation. The sub-sections below describe the job roles that are high in demand across the sectors.

Port and Maritime Sector

The district has modern and mechanized ports along with road and rail connectivity. There are no specific institutes other than the in-house training division to impart skills development modules in operations and handling of port equipment. Well trained and skilled crane operators have been reported to be high in demand. Safety has been underpinned as one of the areas that could be focused on for training workforce in the port and maritime sector. Increasing automation in the sector will make few of the manual jobs redundant. Overall, the jobs in this sector will be driven by the growth in the volume of cargo.

The matrix below captures the jobs roles that are high in demand:

Job Roles: Port operations	Findings
• Rail Mounted Quay Crane Operator • Rail Mounted Gantry Crane Operator • Forklift Operator • Reach Stacker Operator • Crane Mechanic • Tippers • Stevedore • Supervisor • Hydraulic Floor Operator • Lashers	• Well trained crane operators are in high demand • Currently, the crane operators are trained by the port operators and CFSs before they are independent charge to operate the cranes • Safety issues must be included in the training programmes • The sector is currently demanding skilled workforce; the shortfall is being met with migrant labour • Job losses amongst the low skilled in the sector are likely to happen; there will be a need for (up-skilled) technicians to manage emerging and sophisticated port operations

Job Roles: Ship Building and Repairs	Findings
• Painter • Fitter • Welder • Dock Riggers, Riggers • Brazers • Gas Cutter • NDT- Non Destructive Technicians • Valve Repairer	• The small pool of local skilled workers contributes directly to shortages of qualified workforce • The more complex the skill, the more likely the shortage of suitably qualified local community members • Stakeholder indicated preference for hiring ITI graduates
Off shore operations	**Findings**
• Pipe laying technicians • Welders • Fitters • X-Ray shot technicians • Rigger	• The small pool of skilled local workers contributes directly to shortages of qualified workforce that is from Visakhapatnam • Mostly migrant labour is engaged in work streams that require high level of specialization and skills • No specialized training institutions are located in Visakhapatnam that could cater to off shore operations sector

Other Priority Sectors

The job roles that are high in demand in the sectors and that have been identified as priority sectors are listed in this sub-section. Like port and maritime sector, sectors such as logistics, manufacturing, and construction will also be susceptible to technological disruptions and automation, which will negatively impact jobs of manual nature.

Logistics

In logistics sector, truckers are in short supply to move containers and cargo. Some of the key stakeholders acknowledged that at any given time truckers are short of the requirement by over 30-40%. Further, it was highlighted that this shortage increases during the harvesting and sowing seasons, when the migrant workforce usually returns back to their respective villages. Therefore, truckers' training for logistics sector can be taken up to supply professionally trained drivers. Further, an RPL and training can be planned/ considered for the existing Trucking workforce. Truckers who could be equipped with skills for handling hazardous substances will be greatly demanded by the manufacturing firms that are located in the industrial areas.

The matrix below captures the jobs roles that are high in demand:

Job Roles: Logistics	Findings
• Surveyors • Supervisors • Hydraulic Axle Operator • Truck Driver • Helper	• Increasing volumes of cargo, the upcoming investments in port and maritime sector, and CFSs demand skilled manpower • The small pool of skilled local workers contributes directly to shortages of qualified supervisors who are from Visakhapatnam • Trainings required for drivers for handling hazardous substances • Life skills training required for truckers • Increased use of ICT and automation in work processes will impact manual jobs

Construction

Projects such as smart cities will demand skilled workforce that will be able to use smart technologies in not only building the smart cities but also maintaining them. As part of the Smart City programme, Visakhapatnam is expected to witness investments to the tune of INR 600 Crores in solar technology. The Andhra Pradesh Govt. in its policy on Solar Power hopes to improve its capacity addition of 5000 MW by 2020 with considerable focus on roof top power. There will be demand for workforce that can work in the renewable energy domain. Other

infrastructure projects will require skilled workforce in structure design and maintenance, finishes, and electrical works for building huge infrastructural facilities.

The matrix below captures the jobs roles that are high in demand:

Job Roles: Construction	Findings
• Solar PV installer (Civil) • Fabricator • Supervisor-Structure • Foreman Wet Finishing and Flooring • Supervisor - Electrical Works • Supervisor - Roads & Runways	• Smart city projects and other infrastructural development projects such as Vizag Chennai Industrial Corridor, Vizag Metro Rail will require skilled workforce that could work with sophisticated technology • Site workers will require skills to use new, innovative technological devices and smart systems • Skills to manage increased integration of technologies into the building structures • Demand for new age installation and maintenance skills especially in renewable energy sector • Limited apprenticeship arrangement exists, combining formal training off-the-job with on-the-job training

Manufacturing

Visakhapatnam is a manufacturing hub that has at least 2000 units catering to sectors such as Pharmaceuticals, Metals Petrochemicals, Plastics, Glass, Rubber, and Chemicals. These sectors demand skilled workforce that can work in manufacturing processes. Emerging technology such as 3D or additive manufacturing will shape the manufacturing sector in the next few years and the workforce engaged in manufacturing will have to upgrade its skills to be in tune with the emerging market requirements. This sector will also require technological literacy among the workers.

The matrix below captures the jobs roles that are high in demand:

Job Roles: Manufacturing	Findings
• Welder • Fitter • Electrician • Plumber • Mechanic	• Supervisory skills are also needed in the roles of foremen, leading hands and supervisors • Limited apprenticeship arrangement exists, combining formal training off-the-job with on-the-job training • Stakeholders indicated preference for hiring ITI graduates • Additive manufacturing or 3D printing will impact the manufacturing processes • There will be a general need for medium to high technology literacy throughout the sector

Tourism

The State is inviting investments up to the tune of INR 900 Crores in Beach & Water based tourism sector focusing on areas like Beaches, Sea Cruises, Marine Water Sports including kayaking, Lake Development, Oceanariums etc. In addition, Sea Plane services are also proposed. Local seafaring population may be trained in associated job roles which require familiarity with the sea. Training in the sector will require focus on English language skills.

The matrix below captures the jobs roles that are high in demand:

Job Roles: Tourism	Findings
• Life Guard • Boat Jetty Supervisor • Counter Sales Executives • Oceanarium • Tour Guides • Tank Cleaners • Marine Sports	• Limited on job training opportunities • Focus required on communication skills/public relations; reporting skills; administration skills and financial skills

Fisheries

Trainings imparted in longline fishing and value addition could help the fishing community in increasing the volume of their catch and in getting a better price. Shrimp and fish export houses in Visakhapatnam will demand a skilled workforce.

The matrix below captures the jobs roles that are high in demand:

Job Roles: Fisheries	Findings
• Longline fisherman • Cold Storage Technician • Warehouse Manager • Mechanic • Glass/Tunnel/Trolley Freezer Operator • Grading supervisor • De-heading supervisor • Aquaculture Technician • Mariculture Technician	• Visakhapatnam can hugely benefit from improved fisheries practices • Export potential for shrimps and fish • Unused land parcels can be used for aquaculture and mariculture • Improved skills are particularly needed for aquaculture and mariculture and longline fishing

Apparel

The apparel sector will see increasing reliance on designing software and automation of inventory management processes.

The matrix below captures the jobs roles that are high in demand:

Job Roles: Retail and Apparel	Findings
• Supervisors • Store helpers • Quality checkers/controllers • Operators • Helpers • CAD Markers/Graders	• Focus required on training the workforce in using the designing software • Automation and software could render many lower skilled customer designing and production roles obsolete • Focus required on communication skills/public relations, administration skills and financial skills

2.2. East Godavari

2.2.1. Incremental Demand[17] for Skilled & Semi Skilled Manpower

The Godavari Delta is poised to drive the economy of the district in the agriculture, natural gas and fisheries sectors apart from the industrialization expected from the Vizag - Chennai Industrial Corridor project, spillovers from the Amaravathi Capital Region development etc. Major contributors to the requirement of skilled labour would be from the Construction and Logistics Sector.

Table 5: Incremental Demand for Skilled & Semi Skilled Workers in East Godavari

Sector	2017	2018	2019	2020	2021	2022	Total
Core Sectors							
Ports & Allied	372	399	429	460	494	531	2685
Logistics	5,531	5,990	6,485	7,024	7,604	8,235	40,869
Tourism	927	1,181	1,353	1,567	1,577	1,385	7,990
Construction	9,044	9,834	10,694	11,627	12,643	13,747	67,589
Fisheries							
Other Dominant Sectors in the District							
Manufacturing	2,145	2,200	2,253	2,309	2,367	2,426	13,700
Trade (Retail & Wholesale)	1,155	1,191	1,229	1,269	1,307	1,348	7,499
Agriculture	1,591	1,595	1,596	1,601	1,603	1,606	9,592
TOTAL							149,924

Key trends in Core Sectors

- **Ports and Allied Sectors**: The development of offshore facilities of ONGC, Reliance etc. are expected to drive the throughput in the Kakinada Port in the near future. However considering high technology requirements, the sector is expected to generate between 300-550 jobs a year.

- **Logistics:** The Visakhapatnam Chennai Industrial Corridor (VCIC), where Rajhamundry, Kakinada and the port are expected to be important nodes of industrialization, development is expected to increase the demand for total employment in the logistics sector driven by the possible output from manufacturing and the construction phase of the corridor.

- **Tourism & Hospitality:** East Godavari is the second most popular destination for tourists in the state after Chittoor District which hosts the Tirupati Temple. With promised investments in areas including marine tourism, religious circuits, cruises etc., the sector is expected to generate requirement for nearly 8,000 skilled workers.

- **Construction:** The VCIC, Smart Cities, investments in the Tourism Sector are expected to drive the demand in the sector as the district will soon go into the construction mode for several industrial parks and SEZs. In addition, the decentralized development adopted by the residual state of Andhra Pradesh post the bifurcation will contribute to further urbanization and industrialization of the district.

- **Fisheries:** The promotion of deep line fishing, cage culture etc. are forecasted to promote requirement of skilled workers in the fishing industry.

Key trends in other Dominant Sectors in the District.

- **Manufacturing**: Investments that are in the pipeline in the Manufacturing Sector are mostly driven by the VCIC.

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[17] Incremental Demand Estimates the additional stock of workforce that are to be created given the expected Economic Conditions in the period of study. This may help in estimating requirement for fresh trainings.

- **Trade**: This sector especially is expected to generate medium amount of jobs of around 7500 largely in organized retail to match with the changing characteristics of urbanization in the district. The promotion of tourism and industrial development can have spillover effects on the same.

- **Agriculture**: The Rice Bowl of Andhra Pradesh shall continue to demand skilled labour to meet the changing requirements in the agricultural practices and continued demand of food from the fertile banks of the Godavari Delta.

2.2.2. *Gap between Total Demand[18] and Supply of Skilled Manpower in Select Sectors*

The gap in the existing total skilled workforce connotes the gap between the **total requirement of skilled manpower** and **workforce in the district with recognized trainings in the said sectors**.

Figure 56: Gap between Skilled Manpower Requirement and Workforce in District with Trainings in Select Sectors in East Godavari[19]
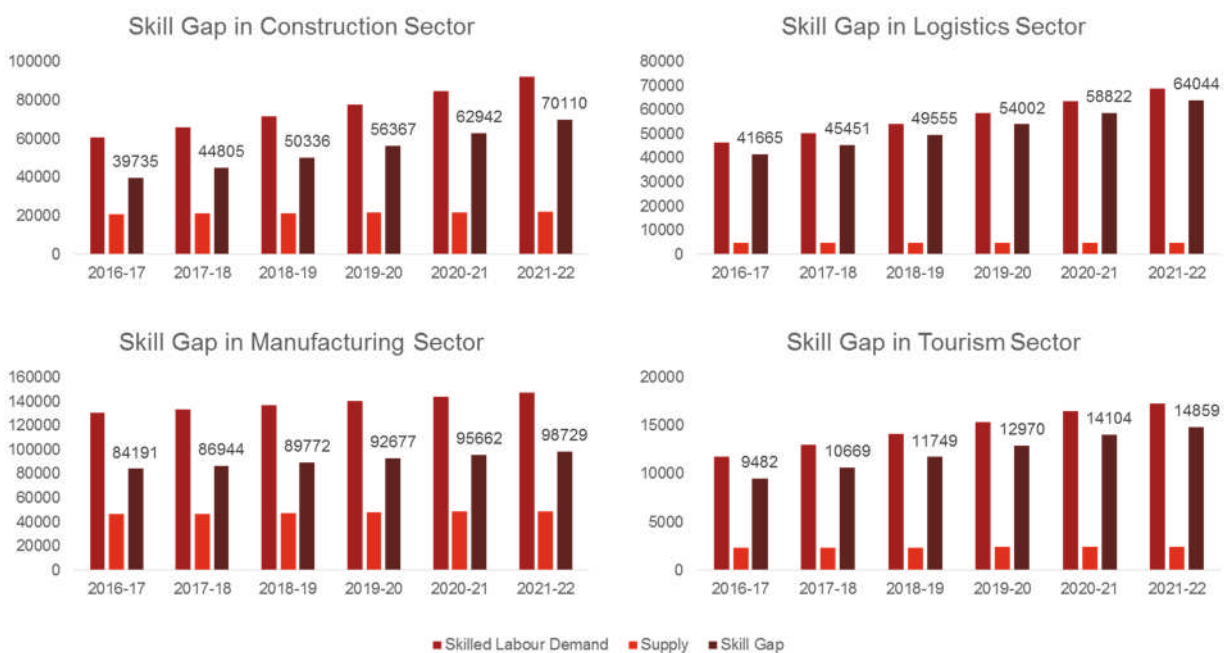
- **Construction Sector:** The availability of the skilled workforce is larger than other districts with an estimate of nearly 1/3rd the manpower possessing recognizable trainings. However, at the present capacity, the gap between **total requirement of skilled manpower** and the availability is set to increase by 76%.

- **Logistics Sector:** The logistics sector has historically been characterized by its informal nature and this is reflected in the very low levels of recognized skilled workforce with less than 5000 people with formal recognitions to meet the **total requirement of skilled manpower** of around 46,000 persons. This situation is exacerbated by the limited options available for recognized trainings and certificates in the sector. The incremental requirement for workforce in the district is expected to increase the gap marginally by more than 50%, indicating extreme shortage.

- **Manufacturing Sector:** The sector has historically been served by degrees in engineering, diplomas in polytechnics and certificates in ITIs in the region. In addition there have been certification programs in the MSME sector as well. Though as a share, close to 1/4ths of the **total requirement of skilled**

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[18] Total Demand refers to the total stock of workforce including the existing workforce in a sector in a district given the expected Economic Conditions in the period of study. This may help in identifying Scope for RPL and Upskilling
[19] The representation is for cumulative requirement in the district for each year.

manpower is met, in absolute numbers, the sector is having a gap of nearly a lakh skilled workers in 2016. This gap is expected to increase by around 1% in numbers over the next five years.

- **Tourism and Hospitality:** Given the present trends of increased formalization and requirement of skilled workers in the sector, the gap between the **total requirement of skilled manpower** and **availability of workforce with recognized trainings** is set to increase by 4000 by 2022.

2.2.3. *Job Roles High in Demand*

This sections captures the jobs that have been reported to be high in demand in East Godavari. The job roles that are listed below have been identified by the stakeholders. Across the sectors a few of the job roles are susceptible to be impacted by technological disruptions and automation. The sub-sections below describe the job roles that are high in demand across the sectors.

Port and Maritime Sector

The port and maritime sector in East Godavari is mostly driven by bulk cargo movement, ship repair and ship building, and offshore operations. Stakeholders have reported high demand for crane operators and other skilled workers such as welders and electricians. Safety has been underlined as one of the areas that could be focused on for training workforce in the port and maritime sector. Increasing automation in the sector will make a few of the manual jobs redundant. Overall, the jobs in this sector will be driven by the growth in the volume of cargo. The matrix below captures the jobs roles that are high in demand:

Job Roles: Port operations	Findings
- RTG Crane Operator - RMG Crane Operator Pedestal Crane Operator - Straddle Crane Operator - Quay Crane operator - Forklift Operator - Reach Stacker Operator - Crane Mechanic	- Well trained and skilled crane operators are in high in demand - Port operators have to train the crane operators for at least three months; no formal and institutional arrangements for training of crane operators - Trainings required on safety issues especially in handling crane operations - There is a general range of technical skills related to the port and maritime that are in shortage; there have been unmet demand for skilled positions currently met with migrant labour. - Job losses amongst the low skilled in the sector are likely to happen; there will be a need for (up-skilled) technicians to manage emerging and sophisticated port operating
Job Roles: Ship building and repairs	**Findings**
- Painter - Blaster - Mechanical/steel fitter - Brazers, machinists for lathe - Drilling and cutting - Dock rigger - Electrician - Welder	- The small pool of local skilled workers contributes directly to shortages of qualified workforce - The more complex the skill, the more likely the shortage of suitably qualified local citizens - Shortages become even more acute where training avenues for specific occupations are limited and where access to high-quality work experience is needed - Stakeholders indicated preference for hiring ITI graduates
Job Roles: Off shore operations	**Findings**
- Pipe laying technicians - Welders - Fitters - X-Ray shot technicians - Rigger	- Mostly migrant labour workforce engaged in work streams that require high level of specialization and skills - No specialized training institutions are located in the district that could cater to off shore operations sector

Other Priority Sectors

The job roles that are high in demand in the sectors and that have been identified as priority sectors are listed in this sub-section. Like port and maritime sector, sectors such as logistics will also be susceptible to technological disruptions and automation, which will negatively impact jobs of manual nature.

Logistics

Truckers are high in demand but the existing workforce that is engaged in trucking lack life skills.

The matrix below captures the jobs roles that are high in demand:

Job Roles: Logistics	Findings
• Truck Drivers • Surveyors • Data Entry Operators	• Life skills training required for truckers • Increased use of ICT and automation in work processes will impact manual jobs

Construction

Smart City projects that are in the offing in East Godavari will demand skilled workforce that will be able to use smart technologies not only in building the smart cities but also maintaining them. There is skilled construction workforce expected to be required within the renewable energy domain. Others projects such as the upcoming GMR SEZ and Vizag-Chennai are also expected to require skilled workforce in construction sector.

The matrix below captures the jobs roles that are high in demand:

Job Roles: Construction	Findings
• Solar PV installer (Civil) • Fabricator • Supervisor-Structure • Foreman Wet Finishing and Flooring • Supervisor - Electrical Works • Supervisor - Roads • Solid Waste Management Technician	• Smart city projects and other infrastructural development projects such as Vizag-Chennai Industrial Corridor will require skilled workforce • Site workers will require skills to use new, innovative technological devices and smart systems • Skills to manage increased integration of technologies into the building structures • There will be demand for new age installation and maintenance skills especially in renewable energy sector

Tourism

There are avenues to develop the tourism sector in East Godavari so that the potential for marine tourism is fully realized. Further, there are opportunities to engage local youth in this sector. Training in tourism sector will require focus on English language skills.

The matrix below captures the jobs roles that are high in demand:

Job Roles: Tourism	Findings
• Front Office Executive • Chef • Kitchen Steward • Housekeeping Supervisor • Tour guide • Facility Store Keeper • Billing Executive • Cab Drivers	• Workforce is trained, but it generally lacks skills and experience required in the workplace • Focus required on communication skills/public relations; reporting skills; administration skills and financial skills

Fisheries

Trainings imparted in aquaculture could help in providing the fishing community an insight into a more profitable way of doing business and also to properly utilize unutilized land parcels that are unfit for agriculture.

Trainings in value addition and better hygiene practices could help the fishermen in getting a better price for their catch. The matrix below captures the jobs roles that are high in demand:

Job Roles: Fisheries	Findings
• Cold Storage Technician • Warehouse Manager • Mechanic • Glass/Tunnel/Trolley Freezer Operator • Grading supervisor • De-heading supervisor • Aquaculture Technician • Mariculture Technician	• East Godavari can hugely benefit from improved fisheries practices, especially the ones focusing on value addition and hygiene practices • Export potential for shrimps • Unused land parcels can be used for aquaculture and mariculture • Improved skills are particularly needed for aquaculture and mariculture

3. District Action Plan

3.1. Background

An actionable roadmap is one of the deliverables to be submitted to MoS for implementing skill training programmes in each of the districts. To develop these District specific plans, the team has mapped the emerging skilling opportunities across the 21 districts. Further, similar training opportunities or training requirements from the same sector have been clubbed in to one programme to ensure optimal use of resources and build economies of scale for delivery partners. This has been proposed to improve the chances of developing and proposing feasible and viable training delivery models.

Further, the team has also estimated the broad capital and operational expenditure expected to be incurred in operationalizing the training initiatives in the districts. Apart from this, critical operational aspects such as training delivery mechanisms, availability of curriculum and employers have also been explored. The current status of these critical aspects will help ascertain the feasibility of initiating these trainings immediately and assess the gaps that need to be bridged before these trainings can be rolled out.

3.2. Objective of developing the plan

The District action plans have been developed with the overall objective of providing a step by step skill implementation plan to the Ministry of Shipping in the 21 coastal districts. The specific objectives include the following:

- Mapping various skilling opportunities available in the district, keeping in mind the requirements of Port-led development and emergence of CEZs.
- Mapping the current status of various pre-requisites such as availability of qualifications, curriculum, funding for training, potential training delivery partners, availability of assessors and certification processes and institutions for the training programmes.
- Identify the potential/target beneficiaries for the training courses.
- Map the infrastructure and the investment that may be required to deliver the training programmes in the district.
- Provide an estimate of the investment required to create/hire the skilling infrastructure.
- Provide a step by step action plan for MoS to implement the skilling initiatives.

3.3. Methodology

Stakeholder consultations[20] that were held at national, state and district level and that included stakeholders from government, industries, associations, and private firms. A separate plan has been prepared for each of the 21 district. The plan has been divided into several sections and include sections on training delivery, potential partners, and investments. The investments component has been divided into two broad heads: capital expenditure and operational expenditure. Capital expenditure has only been proposed in cases in which there were very limited possibilities of using existing institutional framework for partnership and for using existing infrastructure and equipment. Operational expenditure includes the cost of the running the training programmes including the salary of the instructors. The common cost norms are the basis of calculating the operational expenditure. Capital expenditure has been worked out bearing in mind the infrastructure requirements of the programme and duration of training programmes. Wherever feasible, partnership with existing programmes such as DDU-GKY and PMKVY has been suggested.

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[20] Roughly 700 primary consultations informed the development of these plans for 21 districts

3.4. Summary for Visakhapatnam

SN	Project Name	Job Roles	Type of training	No. of people to be trained
1	Skill Development Centre for Ports and Logistics	Truck Drivers, Crane Operators, Data Entry Operators, Stacking/Restacking, Surveyors	Fresh and Upskilling	3,800 persons in next 5 years
2	Training for Travel and Tourism	Tour Guides, Tank Cleaners, Life Guard, Boat Jetty In-charge, Counter Sales Executives, Adventure sports, Tour Guide/Manager, Travel Consultant, Counter Sales Executive, Tour Vehicle Drivers	Fresh	1,000 persons in next 5 years
3	Pharmaceuticals Training	Pharma Quality Assurance/Control Chemist, Pharmacy Assistant	Fresh	900 persons in next 5 years
4	Green Jobs Training	Solar Panel Installation technicians, Landscapers	Fresh	1000 persons in next 5 years
5	Cage Culture and Value Addition	Training on Cage Culture Awareness/Value Addition training courses Longline Fishing	Fresh	2800 in next 5 years
6	Training for Improving Communication Skills especially in spoken English	-	Fresh	8000 in next 5 year

3.5. Action Plan for Visakhapatnam

Project 1: Skill Development Center for Ports and Logistics	
Key economic drivers	• One major port and minor Port – Visakhapatnam Port Trust and Gangavaram Port • Multi-modal Logistic Skills Parks • Extension of existing container terminal in outer harbor • Development of mechanized coal terminal (EQ-1A berth), Vizag general Cargo berth • Development of multi-purpose terminal by replacing EQ-2 o EQ-5 berths in Inner harbor
Rationale for a Training Center	The ports and associated logistics service providers such as the CFS, logistic firms, container yards, shipping agencies are located in close proximity. The number of such firms is expected to increase with the proposed new port, development of SEZ and upcoming smart city projects. Considering that there is a cluster of employers and potential beneficiaries available in close proximity in the district, MoS can explore the opportunity for establishing a Center for Excellence in Ports and Maritime sector.

Trainings		Training courses	Target Beneficiaries	Type of Trainings	Total Number of beneficiaries
		Training for Truckers and Heavy Vehicle drivers	• Existing Truckers/Reach Truck Operators • Local community members	Upskilling	500 persons in next 5 years
				Fresh Training	1,500 persons in next 5 years
		Crane Operators	• Existing crane operators • Local community members	Upskilling	100 persons in next 5 years
				Fresh Training	600 persons in next 5 years
		Training for data operators, stackers and surveyors	• Local community members	Upskilling	500 persons in next 5 year
				Fresh Training	600 persons in next 5 years
Availability of curriculum	**Job Role**	**Target groups**	**QP/NOS**	**MES**	**CTS**
	Truck Drivers	• RPL – Current Truckers • Training Programmes – for potential Truckers, Reach Truck Operators	• Reach Truck Operator	Course available for: • Driver HMV • Driver LMV	No course available
	Crane Operator	• Existing Crane operators	• Crawler crane operator • Hydra crane operator • Tyre mounted crane operator • Junior crane operator • Overhead crane operator	No course available	No course available
	• Data Entry Operators • Stacking/Restacking • Surveyors	Surveyors	QP available for: • Warehouse Supervisor • Warehouse Quality Checker • Warehouse Claims Coordinator • Consignment Booking Assistant • Shipment Classification Agent • Clearance Support Agent	No course available	No course available
Investment (INR In lakhs)	**Truck and heavy vehicle drivers**				
	Operational Expenditure				137
	Training for data operators, stackers and surveyors				
	Operational Expenditure				84

	Crane Operators	
	Operational Expenditure	150
	Total operational expenditure	221
	Capital Expenditure for training center[21]	650
Potential Partners	**Partner**	**Areas of Support**
	Port/CFS	• Space and infrastructure for establishing the training center • Access to port facilities for practical training • Guest faculty • Input for designing curriculum • Provision of used equipment for training • Facilitate implementation of RPL for existing work force
	Industry Association Automobile Association of India)	• Facilitate implementation of RPL for existing workforce
	Training Partner (Port/CFS/TSP)	• Training delivery and establishment of training centers • Co-management of the training facility
	Logistic Sector Skill Council	• Development of QPs for the identified job roles • Identification and certification of Trainers • Identification and certification of assessors • Assessment of trainees • Certification of Trainees
Training Delivery	**Option 1** • Port/CFS or MoS creates the training facility • Training facility to be managed and maintained by Port/CFS or MoS • Port/CFS or MoS to deliver the training and provide qualified trainers and mobilize trainees **Option 2** • Private training provider to rent/develop the training facility and deliver the training programme	

Work Plan

Port and Logistics	in Months								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Partnership with SSC, Industry Partners and Knowledge partners	▨								
Development of QPs		▨	▨						
Establishment of Training infrastructure and facility	▨	▨	▨	▨					
Furnishing of the training centre						▨			
Purchase and installation of lab equipment						▨	▨		
Appointment of staff members (instructors, counsellors, mobilization in-charge, placement officers, administrative staff etc.)				▨	▨				
Mobilization of prospective trainees							▨	▨	

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[21] The cost of crane and truck stimulators.

Enrolment of students									
Roll-out of training programme									

Project 2: Training for Travel and Tourism

Key economic drivers	• Huge potential for investments in Heritage Tourism, Religious Circuits, Eco Tourism, Beach and Water based tourism, Marine water sports etc.
Rationale	There is a huge demand for tour guides, and counter sales executives. The district holds huge potential investments in Beach & Water based tourism, Heritage Tourism, Religious Circuits, Eco Tourism which will require guided travel. Araku Valley in specific is a pristine ecological spot which would require a trained workforce with understanding of the local conditions.

Trainings in high demand		**Training courses**	**Target Beneficiaries**	**Type of Trainings**	**Total Number of beneficiaries**
		Training for Marine Tourism and Hospitality trades	• Fisherman population, coastal community members	RPL	-
				Fresh Training	500 persons in next 5 years
		Training for Travel and Tourism	• Coastal community members	RPL	-
				Fresh Training	500 persons in next 5 years

Availability of curriculum	**Job Role**	**Target groups**	**QP/NOS**	**MES**	**CTS**
	• Tour Guides • Tank Cleaners • Life Guard • Boat Jetty In-charge • Counter Sales Executives • Adventure sports	• Coastal community members	QP available for: • Tour Guide • Water Tank Cleaner • Boat Jetty In-charge • Counter Sales Executives	MES available for: • Tour Assistant • Ticket Reservation Assistant	Course available for: • Travel Tour Assistant • Tour Guide
	• Tour Guide/Manager • Travel Consultant • Counter Sales Executive • Tour Vehicle Drivers	• Coastal community members	QP available for: • Tour Guide • Travel Consultant • Counter Sales Executive • Tour Vehicle Driver	MES available for: • Tour Assistant • Ticket Reservation Assistant • Tour Agent/Travel Operator	Course available for: • Travel Tour Assistant • Tour Guide

Investment (INR In lakhs)	**Training for Marine Tourism and Hospitality**	
	Operational Expenditure	42.5
	Training for Travel and Tourism	
	Operational Expenditure	57.5
	Total operational Expenditure	100

Potential Partners	**Partner**	**Areas of Support**
	TSP	• Space and infrastructure for establishing training • Training delivery/training facility
	Hotel Management Institutes (HMIs)	• Input for designing curriculum • Guest faculty

	Industry Association (Hotel)	• Facilitate On-Job-Training • Facilitate placements
	Travel and Hospitality Sector Skill Council (THSSC)	• Development of QPs for the identified job roles • Develop model training programmes for the identified Job Roles • Identification and certification of Trainers • Identification and certification of assessors • Assessment of trainees • Certification of Trainees
Training Delivery	• Engage a TSP affiliated with DDU-GKY and PMKVY to deliver the training • The training centre will be setup by a training provider who will be engaged	

Travel and Hospitality Trades	in Months					
	1	**2**	**3**	**4**	**5**	**6**
TSP enplanement						
Training centre setup						
Appointment of trainers						
Mobilization of prospective trainees						
Enrolment of trainees						
Roll-out of centre and training programme						

Project 3: Pharmaceuticals Training					
Key economic drivers	• Development of Jawaharlal Nehru Pharma City[22] • Medical Devices Manufacturing Park (at Andhra Med tech Zone)				
Rationale	Quality control requires deeper understanding of the subject matter at hand and Pharmaceuticals require high-level skills and knowledge in the field of chemistry. Andhra Pradesh has a significant number of Engineering and Sciences students in Chemistry who can be tapped for the project, which can be administered to existing college students interested in the area alongside mainstream college education.				
Trainings		**Training courses**	**Target Beneficiaries**	**Type of Trainings**	**Total Number of beneficiaries**
		Additional Skill Program for Pharma Quality Chemists	• College students (B.Sc. Chemistry/B.Tech/ B.Pharm/ M.Pharm)	RPL	-
				Fresh Training	900 in next 5 years
Availability of curriculum	**Job Role**	**Target groups**	**QP/NOS**	**MES**	**CTS**
	• Pharma Quality Assurance/Control Chemist • Pharmacy Assistant	• College students(B.Sc. Chemistry / B.Tech/B.Pharm/ M.Pharm)	QP available for: • Pharmacy Assistant	MES available for: • Pharmacy Assistant	No course available
Investment (INR In lakhs)	**Additional Skill Program for Pharma Quality Chemists**				
	Operational Expenditure	156			

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[22] http://www.apiic.in/wp-content/uploads/2015/06/JNPC.pdf

Potential Partners	Partner	Areas of Support
	Andhra University and Colleges [Viswanandha Institute of Pharmaceutical Science, Andhra University-College of Pharmaceutical Sciences, GITAM Institute of Medical Science and Research]	• Guest faculty • Input for designing curriculum
	Training Service Provider	• Provide infrastructure for training • Training delivery
	Healthcare Sector Skill Council	• Design model training programmes for the identified Job Roles • Identification and certification of Trainers • Identification and certification of assessors • Assessment of trainees • Certification of Trainees
Training Delivery	• Engage a TSP affiliated with DDU-GKY and PMKVY to deliver the training	

Pharmaceuticals	in Months					
	1	2	3	4	5	6
Partnership with SSC, Industry Partners and Knowledge partners	�					
Affiliation of Training centre with HCSSC	�	�				
Appointment of additional staffs, if required		�	�			
Appointment of trainers				�	▴	
Mobilization of prospective trainees					▴	
Enrolment of trainees						▴
Roll-out of training programme						▴

Project 4: Green Jobs Training				
Key economic drivers	• Smart city projects			
Rationale	As part of the Smart City program, Visakhapatnam is going to invest 600 Crores in solar technology. There would be a significant demand for solar panel technicians in the in the next 2- 3 years. Basic training in plant science, landscape construction and maintenance would be required.			
Trainings in high demand	**Training courses**	**Target Beneficiaries**	**Type of Trainings**	**Total Number of beneficiaries**
	Green Jobs Trainings- Solar Power	• Local youth	RPL	-
			Fresh Training	600 persons in next 5 years
	Landscapers	Local Youth/College students	RPL	-
			Fresh Training	400 persons in next 5 years
	Job Role	**Target groups**	**QP/NOS**	**MES**	**CTS**

Availability of curriculum	Solar Panel Installation technicians	ITI (Electrical and Mechanical)/Diploma (Electrical and Mechanical) candidates	QP available for: • Solar Panel Installation technicians	Course available for Solar electric System Installer & Service Provider, Solar Hot Water system installer, Assistant Solar PV Technician, Solar PV Technician	No course available
	Landscapers	Local youth	No course available	No course available	No course available

Investment (INR In lakhs)	**Green Jobs Training**	
	Operational Expenditure	48
	Landscapers	
	Operational Expenditure	26
	Total Operational Expenditure	74

Potential Partners	**Partner**	**Areas of Support**
	Training Institutes	• Provide infrastructure for training • Training delivery
	Industry Association	• Industry interface • Facilitate On-Job-Training • Facilitate in identifying the firms that could recruit the trained graduates in Vizag
	Skill Council for Green Jobs	• Development of QPs for the identified job roles • Develop model training programmes for the identified Job Roles • Identification and certification of Trainers/assessors • Assessment and Certification of trainees

Training Delivery	• Engage a TSP affiliated with DDU-GKY and PMKVY to deliver the training • Funding and regulation (Solar Panel technician training):- NULM, Corporation of Visakhapatnam

Green Jobs Training	in Months					
	1	2	3	4	5	6
To establish a partnership with SSC, Industry Partners and Knowledge partners	▓	▓				
Development of QPs		▓				
Purchase and installation of lab equipment	▓	▓	▓			
Appointment of trainers				▓	▓	
Mobilization of prospective trainees					▓	
Enrolment of trainees						▓
Roll-out of training programme						▓

Project 5: Training on Cage Culture and Value Addition				
Key economic drivers	- The state has the largest area under cultivation[23] of fish and shrimps - Cyclone protected and does not require going deep into the sea, fish harvesting is easier, environment friendly are the advantages of this technique - Huge demand for activities such as handling catch, preservation of catch etc. which will increase the income of the fishermen and will also benefit the women who sell the catch - Aqua and mariculture holds a lot of potential to create self-employment opportunities for the coastal communities			
Rationale	Hygienic handling of fishes and quality control of the catch will improve the fishermen's income by 10-20%. A five day training course comprising of sessions on appropriate ways of handling catch, usage of clean water, kind of ice used, preservation of catch will augment the income of the fisher-folk. This will also help in reducing the ailments caused by unhygienic handling of catch to the fisher folk especially women who sell the catch.			

Trainings		Training courses	Target Beneficiaries	Type of Trainings	Total Number of beneficiaries
		Training on Cage Culture	- Local Fishing community - Fish Cooperative members - Self Help Group (SHGs) members	RPL	-
				Fresh Training	1000 persons in next 5 years
		Awareness/Value Addition training courses	Fishermen Community	RPL	-
				Fresh Training	800 persons in next 5 years
		Longline Fishing	Fishermen Community	RPL	-
				Fresh Training	800 persons in next 5 years

Availability of curriculum	Job Role	Target groups	QP/NOS	MES	CTS
	Technician	- Local fishing community - SHG members - Fish cooperative Members	QP available for: - Aquaculture technician - Aquaculture worker	No Course available	No Course available
	Fisherman	Fishermen community	QP available for: - Aquaculture technician - Aquaculture worker	No Course available	No Course available
	Longline Fisherman	Fishermen community	QP available for: - Aquaculture technician - Aquaculture worker	No Course available	No Course available

Investment (INR In lakhs)	Cage Culture	
	Operational Expenditure	146
	Value Addition	
	Operational Expenditure	64
	Longline Fishing	
	Operational Expenditure	64
	Total operational expenditure	274
Potential Partners	Partner	Areas of Support

[23] http://mpeda.gov.in/MPEDA/cms.php?id=eWVhci13aXNlLXNwZWNpZXMtd2lzZS1zdGF0ZS13aXNl#

	Fishery Training Institute	• Provide infrastructure for training • Training delivery • Support in setting up/scaling up the training centre as per the required SSC norms • Provide faculty members • Integrate the proposed trainings in its training plan
	National Fisheries Development Board	• Setting up of Open Sea Cage • Demonstration of model sea cage culture to fishermen • Selection of farmers/fisherman for receiving the training • Funding and regulations
	Agriculture Sector Skill Council	• Develop model training programmes for the identified Job Roles • Identification and certification of Trainers • Identification and certification of assessors • Assessment of trainees • Certification of Trainees
Training Delivery	• Fishery Training Institute to deliver the training facility • Funding and Regulation:- ICAR (Indian Council of Agricultural Research) for Longline Fishing training and value addition program; National Fisheries Development Board for Cage Culture	

Cage Culture	in Months					
	1	2	3	4	5	6
Upgradation of training centre						
Affiliation of Training centre with ASCI						
Initiation of residential facility construction work						
Purchase of consumables						
Appointment of additional staff members						
Mobilization of prospective trainees						
Enrolment of students						
Roll-out of training programme						

Project 6: Training for Improving Communication Skills especially in spoken English				
Key economic drivers	• Lack of communication skills has been identified as a major contributor towards unemployment of the youth in Visakhapatnam			
Rationale for the Training Center	Lack of communication skills has been identified as a major contributor towards un-employability of the youth. APSSDC has set up 37 Employability Skill Centres (ESCs) in the District. Training should be organised for the youth who have passed out of ITIs/Polytechnics in addition to the local colleges and are unemployed, to improve their chances of getting employed.			
Job Roles in Demand	**Training courses**	**Target Beneficiaries**	**Type of Trainings**	**Total Number of beneficiaries**

Availability of curriculum	Job Roles	Target Groups	Available QP/NOS	MES	CTS
		Training for Improving Communication Skills especially in spoken English	• Unemployed youth who have completed courses from ITI, Polytechnics	Fresh Training	8,000 persons in next 5 years
		• Unemployed youth who have completed courses from ITI, Polytechnics	• No QP/NOS available	Course available : Spoken English and Communication Skill	No course available

Estimated Investment for the training (INR in lakhs)	Training in Communication Skills especially in spoken English	
	Operational Expenditure	1110.4

Potential Partners	Partner	Areas of Support
	Employability Skill Centers (APSDDC)	• Input for designing curriculum • Funding and regulations • Providing Guest faculty
	Local Colleges / Polytechnics / ITIs	• Space and infrastructure for conducting the training • Access to facilities for training
Training Delivery	• Local colleges will be offering the infrastructure to undertake the training • ESCs will lead the curriculum preparation with help from the HRs from various organizations who come to recruit	

Training for Improving Communication Skills especially in spoken English	in Months					
	1	2	3	4	5	6
Partnership between ESCs and the local colleges/Polytechnics/ITIs						
Developing QP/NOS and curriculum						
Setting up the training center						
Appointment of trainers						
Mobilisatation and enrolment of prospective trainees						
Roll-out of training programme						

3.6. Additional Training Courses

During the interaction with the State Skill Development mission, some additional training courses were also suggested with an objective to cater to female candidates. Further, most of these programmes offer an opportunities for self-employment.

The training courses have been offered traditionally by various TSPs under different schemes and programmes and have been listed in the tale below.

S. No	Sector	Trade - QP	Qualification
1.	Food Processing / Agriculture	Coffee Cultivation/ Processing	Literate
2.	Trade/Retail	Sales Executive, Entrepreneur	Literate

3.7. Summary for East Godavari

SN	Project Name	Job Roles	Type of training	No. of people to be trained
1	Skill Development Centre for Ports and Logistics	Truck Drivers, Crane Operators	Fresh and RPL	2,200 persons in next 5 years
2	Training for Travel and Tourism Skill Development and Entrepreneurial Courses to be taken up by State Institute of Fisheries Technology (SIFT)	Fish Farmer- Cage Culture, Seaweed Farmer, Pickle maker, Shellfish artisan , Fish Sellers	Fresh	3,200 persons in next 5 years
3	Self-Employment in the Coir Industry (2 ply yarn making entrepreneurial activity)	Weaver	Fresh	500 persons in next 5 years
4	Training for Improving Communication Skills especially in spoken English	-	Fresh	8000 in next 5 years

3.8. Action Plan for East Godavari

Project 1: Skill Development Center for Port and Logistics				
Key economic drivers	- Presence of Kakinada Deep Water Port and Anchorage Port - Kakinada Special Economic Zone being developed, which would be spread across 10,500 acres - New port named Kakinada Port Special Economic Zone (KPSEZ) being developed by GMR			
Rationale for the Training Center	The ports and associated logistics service providers such as the transport operators are located in close proximity due to their dependence on the port. Furthermore, as per the availability of land at the port the land can be used for installing crane and truck simulators. Considering that there is a cluster of employers and potential beneficiaries available in close proximity in the district, MoS can explore the opportunity for establishing the training center.			
Job Roles in Demand	**Training courses**	**Target Beneficiaries**	**Type of Trainings**	**Total Number of beneficiaries**
	Training for Truckers for Logistics Sector	- Unemployed/Local Youth for fresh trainings - Existing truck drivers for RPL	RPL	1000 in next 5 years
			Fresh Training	1000 in next 5 years
	Crane operators	- Unemployed/Local Youth for fresh trainings - Existing truck drivers for RPL	RPL	100 in next 5 years
			Fresh Training	100 in next 5 years
Availability of curriculum	**Job Roles**	**Target Groups**	**Available QP/NOS**	**MES**	**CTS**
	Truck Drivers	- Unemployed/Local Youth for fresh trainings - Existing truck drivers for RPL	Reach Truck Operator	Course available for: Driver HMV	No course available

					• Driver LMV	
	Crane operators	• Unemployed/Local Youth for fresh trainings • Existing crane operators for RPL	QP available for • Crawler crane operator • Hydra crane operator • Tyre mounted crane operator • Junior crane operator • Overhead crane operator	Course available for: • Truck Mounted/ Crawler/ Rough Terrain Crane Operator	No course available	

Estimated Investment for establishing a training center (INR in lakhs)	**Truck and heavy vehicle operators**	
	Operational Expenditure	120
	Crane operators	
	Operational Expenditure	26
	Total Operational Expenditure	146
	Capital Expenditure[24]	500

Potential Partners	**Partner**	**Areas of Support**
	Kakinada Deep Water Port	• Space and infrastructure for establishing the training center • Access to port facilities for practical training • Input for designing curriculum • Provision of equipment and simulators for training • Facilitate implementation of RPL for existing work force • Provide Guest faculty and facilitate on the job training
	Lorry Association	• Facilitate implementation of RPL for existing workforce • On the job training
	Training Partner (Port/TSP)	• Training delivery • Co-management of the training facility
	Logistic Sector Skill Council	• Development of QPs for the identified job role • Develop model training programme for the identified Job Roles • Identification and certification of Trainers • Identification and certification of assessors • Assessment of trainees • Certification of Trainees

Training Delivery	**Option 1** • Port or MoS creates the training facility • Training facility to be managed and maintained by Port or MoS • Port to deliver the training and provide qualified trainers and mobilize trainees **Option 2** • Private training provider to rent/develop the training facility and deliver the training programme

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[24] Cost of 2 crane stimulators and 10 truck simulators

Work Plan

Port and Logistics	in Months								
	1	2	3	4	5	6	7	8	9
Partnership with SSC, Lorry Association and Kakinada Deep Water Port	▓								
Development of QPs		▓	▓						
Modification of Training Infrastructure along with purchase and installation of equipment and simulators	▓	▓	▓						
Purchase and installation of lab equipment						▓	▓		
Appointment of staff members (instructors, counsellors, mobilization in-charge, placement officers, administrative staff etc.)				▓	▓	▓			
Mobilization of prospective trainees							▓		
Enrolment of students									▓
Roll-out of training programme									▓

Project 2: Skill Development and Entrepreneurial Courses to be taken up by State Institute of Fisheries Technology (SIFT)				
Key economic drivers	• Prevalence of fishing community • High demand for shrimp and fish for consumption • Export potential post processing			
Rationale for the trainings	East Godavari has 76,777 active fishermen and a total fishermen population of 385,392. The state is the largest producer of fish and shrimp in terms of both quantity and quality. The state has come up with a Fisheries Policy, with a vision to emerge as the Aqua-hub of the country and to emerge as a supplier of fish and marine products domestically and internationally. Given the thrust on the sector, it is a logical step to introduce trainings which focus on the fisher-folk and would enhance their income. MoS can explore the option of imparting trainings in this domain as it would go a long way in delivering value to the fishermen community.			
Job Roles in Demand	**Training courses**	**Target Beneficiaries**	**Type of Trainings**	**Total Number of beneficiaries**
	Training on Cage Culture	• Local Fishing community • Fish Cooperative members • Self Help Group (SHGs) members	Fresh Training	500 persons in next 5 years
	Developing Skills for Seaweed Culture	• Fishing Community • Women from Fisherwomen SHGs	Fresh Training	600 persons in next 5 years
	Fish/Seafood Pickle making	• Fisherwomen Self-Help Groups	Fresh Training	600 persons in next 5 years
	Training for making products using shellfish	• Fisherwomen Self-Help Groups	Fresh Training	500 persons in next 5 year
	Hygienic handling of fish	• Fishermen community	Fresh Training	1000 persons in next 5 years -5
Availability of curriculum	**Job Role**	**Target Groups**	**Available QP/NOS**	**MES**	**CTS**
	Fish Farmer-Cage Culture	• Local Fishing community	QP available for: • Aquaculture technician	No course available	No course available

		• Fish Cooperative members • Self Help Group (SHGs) members	• Aquaculture worker		
	Seaweed Farmer	• Fishing Community • Women from Fisherwomen SHGs	QP available for: • Aquaculture technician • Aquaculture worker	No course available	No course available
	Pickle maker	• Fisherwomen Self-Help Groups	QP does not exist	No course available	No course available
	Shellfish artisan	• Fisherwomen Self-Help Groups	QP does not exist	No course available	No course available
	Fish Sellers	• Fishermen community	QP available for: • Aquaculture technician • Aquaculture worker	No course available	No course available

Expenditure for carrying out trainings (INR in Lakhs)	**Cage Culture**	
	Operational Expenditure	70
	Developing Skills for Seaweed Culture	
	Operational Expenditure	8
	Fish/Seafood Pickle making	
	Operational Expenditure	48
	Training for making products using shellfish	
	Operational Expenditure	40
	Hygienic handling of fish	
	Operational Expenditure	80
	Total Operational Expenditure	246

Potential Partners	**Partner**	**Areas of Support**
	For Cage Culture	
	National Fisheries Development Board (NFDB), Central Marine Fisheries Research Institute (CMFRI) or State Institute of Fisheries Technology (SIFT)	• Setting up of Open Sea Cages • Demonstration of model sea cage culture to fishermen • Provide Guest faculty and facilitate on the job training • Selection of farmers/fisherman for receiving the training • Funding and regulations
	For other Trainings at SIFT	
	State Institute of Fisheries Technology and CIFNET	• Space and infrastructure for establishing the training center • Developing and fine tuning the curriculum • Provide Guest faculty and facilitate on the job training • Provision of material for training • Funding and regulations
	Agriculture Sector Skill Council	• Develop model training programmes • Identification and certification of Trainers • Identification and certification of assessors • Assessment of trainees • Certification of Trainees
Training Delivery	• National Fisheries Development Board (NFDB) to create the training facility	

- Central Marine Fisheries Research Institute (CMFRI) or State Institute of Fisheries Technology (SIFT) to deliver the training
- State Institute of Fisheries Technology will provide the infrastructure for providing the trainings
- SIFT and CIFNET to partner for delivering the seaweed culture training
- SIFT will provide qualified trainers and mobilize trainee

Skill Development and Entrepreneurial Courses	in Months					
	1	2	3	4	5	6
Partnership between SIFT, CIFNET, CMFRI and NFDB to be finalised						
Developing QP/NOS						
Appointment of additional staff members						
Mobilization and enrolment of prospective trainees						
Roll-out of training programme						

Project 3: *Self-Employment in the Coir Industry (2 ply yarn making entrepreneurial activity)*	
Key economic driver	• East Godavari is the largest producer of coconut in Andhra Pradesh, thus ensuring availability of raw material for the coir industry[25]
Rationale for the training	Self-employment in the coir industry is a feasible avenue for the local youth of the district as this is a sustainable entrepreneurial activity wherein the raw material is available in abundance and there exists a well-developed market for the output of the coir industry.

Job Roles in Demand	Training courses	Target Beneficiaries	Type of Trainings	Total Number of beneficiaries
	2 ply yarn making entrepreneurial activity	• Local youth	Fresh Training	500 persons in 5 year

Availability of curriculum	Job Role	Target Beneficiaries	Available QP/NOS	MES	CTS
	Weaver	Local youth	• QP not available	Not available	Not available

Estimated Investment (INR In lakhs)	2 ply yarn making entrepreneurial activity	
	Operational Expenditure	28

Potential Partners	Partner	Areas of Support
	COIR Board	• Inputs in designing the curriculum • Provide Guest faculty • Funding and regulations
	Training Service Provider	• Training delivery
	Handicraft Sector Skill Council	• Develop model training programmes for the identified job roles • Identification and certification of Trainers • Identification and certification of assessors • Assessment of trainees • Certification of trainees
Training Delivery	• The empaneled TSP that could be from DDU-GKY and PMKVY	

2 ply yarn making entrepreneurial activity	in Months					
	1	2	3	4	5	6
Developing QP/NOS						

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[25] Season and Crop Report 2014-15, Dept. of Economics and Statistics, Govt. of Andhra Pradesh,

2 ply yarn making entrepreneurial activity	in Months					
	1	2	3	4	5	6
Appointment of additional staff members						
Mobilization and enrolment of prospective trainees						
Roll-out of training programme						

Project 4: Training for Improving Communication Skills especially in spoken English

Key economic drivers	• Lack of communication skills has been identified as a major contributor towards unemployment of the youth in East Godavari			
Rationale for the Training Center	Lack of communication skills has been identified as a major contributor towards un-employability for the youth. APSSDC has set up 24 Employability Skill Centres (ESCs) in the District. Training should be organised for the youth who have passed out of ITIs/Polytechnics in addition to the local colleges and are unemployed, to improve their chances of getting employed.			
Job Roles in Demand	**Training courses**	**Target Beneficiaries**	**Type of Trainings**	**Total Number of beneficiaries**
	Training for Improving Communication Skills especially in spoken English	• Unemployed youth who have completed courses from ITI, Polytechnics	Fresh Training	8,000 persons in next 5 year

Availability of curriculum	**Job Roles**	**Target Groups**	**Available QP/NOS**	**MES**	**CTS**
		• Unemployed youth who have completed courses from ITI, Polytechnics	• No QP/NOS available	Course available : Spoken English and Communication Skill	No course available

Estimated Investment for the training (INR in lakhs)	**Training in Communication Skills especially in spoken English**	
	Operational Expenditure	1110.4
Potential Partners	**Partner**	**Areas of Support**
	Employability Skill Centres (APSDDC)	• Input for designing curriculum • Funding and regulations • Providing Guest faculty
	Local Colleges / Polytechnics / ITIs	• Space and infrastructure for conducting the training • Access to facilities for training
Training Delivery	• Local colleges will be offering the infrastructure to undertake the training • ESCs will lead the curriculum preparation with help from the HRs from various organizations who come to recruit	

Training for Improving Communication Skills especially in spoken English	in Months					
	1	2	3	4	5	6
Partnership between ESCs and the local colleges/Polytechnics/ITIs						
Developing QP/NOS and curriculum						
Setting up the training center						
Appointment of trainers						
Mobilisatation and enrolment of prospective trainees						
Roll-out of training programme						

4. List of Stakeholders consulted

4.1 State level consultations-Andhra Pradesh

SN	Stakeholders	Person	E-mail	Cell/Phone
1	Andhra Pradesh State Skill development Corporation	Avanish Kumar, COO	info@apssdc.org	040- 23410477
2	Andhra Pradesh Tourism Department	Dr. Rajendra Prasad Khajuria, Commissioner	edaptdcvsp@gmail.com; secy_trsm@ap.gov.in	040-23262157
3	Labour Department	R.Ravibhushan Rao, Joint Labour Commissioner	Com.labour@gmail.com	94911 41057
4	Directorate of Economics and Statistics	Ms.V. Prathima, Joint Director		8978177113
5	School Education	RMSA Cell		
6	Fisheries Department	Jt. Director	mbraju4856@gmail.com	9440814702
7	Rural Development	Vijay Mappala, EGM		9866900079
8	Directorate of Employment and training	Jt. Director		8886882222
9	MEPMA	Mr. Rajasekhar ReddyAdministrative Officer	pppvani@ampmepma.gov.in	7702211125

4.2 District level consultations-East Godavari

S.No	Stakeholder	Person	E-mail	Cell/Phone
1	Kakinada Seaports Ltd.	Capt. Jacob Satyaraju, G.M Operations	capt@kakinadaseaports.in	9866556688
2	Kakinada Seaports Ltd.	M. Murali Krishna, G.M Business Development and Logistics	mkt@kakinadaseaports.in	8842365089
3	AKV Logistics Pvt. Ltd.	A.V. Chalam, MD	chalam@akvgroup.in	9885293205
4	Central Institute of Fisheries Education (CIFE)	2 Scientists	kakinada@cife.edu.in	0884-2373602
5	VIKASA (A Govt. Society for Training and Placement Services)	V.N. Rao, Project Director	projectdirector@vikasajobs.com	9640250400
6	VB Exports(P) Ltd.	C.V.N. Prasad, Plant Manager	pm@vbexports.com	8978734567
7	Vedanta, Terminal Operators	P. Sunil Kumar, Manager	p.sunilkumar@vedanta.co.in	8897270210
8	Municipal Corporation, Kakinada (Smart City)	Er. M.V. Suryanarayana, Executive Engineer	vvenkatasurya99@yahoo.com	9849906516
9	Chamber of Commerce	D. Surya Rao, Chairman	kkd.chamber@gmail.com	9848160446
10	Reliance	Nanduri Rao, Manager	nanduri.rao@ril.com	9866770412
11	District Collectorate	Sri. H. Arun Kumar, District Collector		
12	District Industrial Centre	A.V. Patel, General Manager		9949418222
13	District Industrial Centre	David, Deputy Director		
14	Fisheries Department	V. Pedi Babu, Fisheries Development Officer	ddfishkkd@gmail.com	9848350481
15	Kakinada SEZ Port (GMR)	Durga Prasad Rao, GM, Ports Development	durgaprasada.rao@gmrgroup.in	8008190567
16	GMR SEZ	Rama Raju, Head-Projects	ramaraju.bha@gmrgroup.in	9676997779
17	Kakinada Polytechnic	K.C.H Satyanarayana, Administrative Officer	vvenkatasurya99@yahoo.com	9849906516
18	State Institute of Fisheries Technology	Dr. Ram Mohan Rao,		9885144557
19	ITI	Vadrevu Srinivasan Rao, Principal		8886882167
20	Municipal Corporation, Kakinada (Smart City)	S. Aleem Basha, Commissioner		
21	Toursim Department	Prakash, Manager		
22	Lotus Marine Logistics	Bobby, Operations Manager		
23	Bothra Group	Ashok Rout, VP	rout@bothragroup.com	9437103402
24	Sembmarine Kakinada	Sidhardha Kumar, Asst. Commercial Manager		08842355741
25	Coir Board, MoMSME	M.Ramachandrarao	ramachandraraom@yahoo.com	9247798246
26	Industrial Promotion Officer, Rajahmundry	Srinivas Reddy		9440338164

4.3   *District level consultations-Visakhapatnam*

S.No	Stakeholder	Person	E-mail	Cell/Phone
1	Samsara Shipping Pvt Ltd	Mr. Boby (General Manager)	lawrence@samsarashipping.com	9010441000
2	Act Marine Agency	Mr. Kanaka Rao	actmarine@gmail.com	9885108323
3	Atlantic Shipping Pvt Ltd	Mr. Apparao		
		Manager		
4	Visakha Container Terminal	Mr. Sambamurthy, General Manager- HR	smurthy.s@vctpl.com	7893500456
5	Hindustan Shipyard	Mr. Soorya Rao (General manager- HR)	gmhr.hsl@gov.in	9493792200
		Mr. Perumal – Senior Manager (Training division)		9493792904
6	SVK Shipping Services	Mr. Satish Kumar, General Manager	satish@svkshipping.com	9391965559
7	K.RAMABRAHMAM & SONS PVT LIMITED	Mr. Sudarshan- GM marketing	krsons@vsnl.com	9248023044
8	Gateway Hotel	Mr. Ravi Kumar	Ravi.kumar@tajhotels.com	0891 662 3670
		HR Manager		
9	Visakhapatnam Port Trust	Mr. Venugopal- secretary:	Secretary.vizagport@gmail.com	9705182199
		Mr. Kapardee, Sr. Dy. Director	rnp.mvk-vpt@gov.in	9948979500
10	Sprints Exports Private Limited	Mr. Pavan Kumar	pawan@sprintexports.com	9848197789
11	Gangavaram Port	Mr. Brahmaiah, Director (Strategy and Planning)	brahmaiah@gangavaram.com	0891-2701177
12	Vizag Sea Port Private Limited	Mr. Chakraborti (General Manager- operations)	chakri@vizagseaport.com	9866344757
		Mr. Shakhti (Senior Manager- Operations)		9866398106
13	District collector office-vizag	Mr. Pravin Kumar		
14	Vizag General Cargo Berth Pvt. Ltd.	Mr. Rahul (HR Manager)		
		Ms. Divya (Assistant Manager)	divya.nagar@vedanta.co.in	8501855599
15	Continental Warehousing	*Mr. Srinivas, Senior Executive*	stevvizfin@cwcnsl.com	9246649986
16	CMR Shopping Mall			
17	Hotel Dolphin	Navin, HR Manager		
18	International Clearing & Shipping Agency			
20	Datapro Computers			
21	Indo German Institute of Advanced Training	Mr. Srinivas Murthy	mpsmurthy@igiat.com	9246646002
22	Smart City PMU			
23	Tourism Department			
24	District Industries Centre			
25	Sky Choppers Logistics Private Limited			
26	Visakha Tourism			
27	Concor India Ltd	Mr. Gouri Sankara Rao, General Manager- Civil	agsr_2007@rediffmail.com	9618499255

28	Voltas Fashion	Mr. RamKishore Reddy, Factory Manager	vfpl@voltafashions.com	9985700970
29	Hindustan Petroleum Corporation Limited	Mr. Sarma, Senior Manager- Public Relations	sarmaus@hpcl.in	9490132034
31	CIFNET	Mr. Rangari, Deputy Director		8125410712
32	CMFRI	Mr. Sekar	sekarrajaqua@gmail.com	9505768370
33	Fisheries Department	Mr. Venkatesh, Joint Director		9440814716
34	Vijay Nirman	Krishna Mohan		9490438588
35	Hotel Meghalaya	Mr. Jagadish Kumar		8885524242