Strengthening the Discourse on Good and Better Jobs in India

Textiles and Clothing Sector

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Executive Summary

The Indian economy is in a dichotomous phase where the share of private consumption in the gross domestic product (GDP) is at a phenomenal high of approximately 60 percent. However, the workforce which significantly contributes to the demand for private consumption largely remains characterised by low incomes and negligible social security.[1] This can be broadly linked to the fact that there is a considerable focus on ensuring business competitiveness, while little focus has been accorded to maintaining robust and sustainable demand through good and better jobs.

Given this context, it is important to examine labour-intensive sectors in India to understand how to arrive at an outcome that entails greater competitiveness along with higher wages. In other words, how to create good and better jobs in an economy without compromising on growth?

In an attempt to achieve a comprehensive understanding of the factors aiding and deterring the creation of good and better jobs, this report looks at the Textiles and Clothing (T&C) sector, the second largest employer in India.[2] It argues that implicit in 'better income/wages' is the value for the worker. The report goes on to claim that within the framework of 'better incomes' are also subsumed other attributes like opportunities for skill enhancement, social security and working conditions.

The research aims to identify and classify the different attributes associated with a job under two key heads: Good and Better – to get a deeper understanding of the workers' perceptions of each of them. In this case, 'Good' is understood to entail the 'income' dimension of a job and 'Better' contains all other attributes. On the enterprise front, the research aims to assess various supply-side faced by manufacturing units of varying scale and size. These include finance-related issues, in addition to other factors of production, namely, raw material, power, transportation and logistics.

The research then looks at two main dimensions of a job, i.e. labour and enterprise. For the study, the workforce engaged on the factory floor of an enterprise was considered as 'labour' while enterprises engaged in processes in the textile value chain, including spinning, weaving, processing and garments, were covered.

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[1] https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-new_delhi/documents/publication/wcms_638305.pdf

[2] http://texmin.nic.in/sites/default/files/Vision%20Strategy%20Action%20Plan%20for%20Indian%20Textile%20Sector-July15.pdf

In this context, one of the critical challenges highlighted by the report, on the labour front, is the lack of credible and consistent data regarding the number of workers. For instance, in Bhilwara, it varies from 65,000 to 100,000 while in Surat it lies between 1,500,000 and 2,000,000. On a closer look, it can be found that this is due to the presence of a large number of smaller units engaged in various jobs, where maintaining records is not as systematic as in the large ones. This is further complicated by the high level of reliance on contractual labour in this sector and the 'floating' nature of the labour pool.

The wages are also much lower in the smaller units, often below the statutory minimum. Even in the large ones where the statutory minimum is ensured, the workers perceive it to be unsatisfactory for maintaining a decent standard of living. In most cases, the wages paid are for a 12-hour shift while the stipulated shift for the statutory minimum wage is 8 hours. Thus, on average, the desired wages, for all labour in both small and big units, fall short by about Rs 10,000-15,000 a month.

About working conditions, the report highlights that the workers are at a higher risk of contracting respiratory, skin and ophthalmic diseases due to their continuous exposure to hazardous working conditions. The fact that most of these overworked workers are migrants from other states results in the absence of a collective voice for their concerns. The migrant workers are at a disadvantage in terms of their political and social capital in their place of work. This has an impact on their bargaining power. The report moves on to reveal the prevalence of gendered wage and job role discrimination across the Textiles and Clothing (T&C) sector. This makes it a relevant factor for the well being of female workers and hence an important aspect of good and better jobs.

Eroding the agency of workers is a 'surplus-shortage' phenomena, which essentially means that there is an overall surplus of labour at a cluster but a perpetual shortage of demand at a firm level. This results in high contractualisation of labour, which on the one hand, ensures regular supply, while on the other drives down their value. Together, these factors result in weak labour unions all over the country.

The report highlights the importance of skills for better incomes. In this regard, the research brings out two key findings. Firstly, the room for skill uptake is higher in the apparel sector than textile, and secondly, it is higher where the value chain is more comprehensive, compact and integrated. The Tiruppur cluster is an example worth noting, in this context. However, insights from the field bring out an inherent lack of discourse on the skilling of labour from the popular narrative.

Turning to the enterprise side, it may be noted that in the textile sector labour costs are usually in the range of eight to 10 percent of the revenue expenditure of the enterprise. The major proportion of its revenue expenditure, about 60 percent, is on account of raw

materials while recurring power and logistics costs are about 15 percent and 10 percent, respectively. In the apparel sector though, the wages form about 30 percent of overall revenue expenditure as it engages a larger number of skilled labour. Following that, raw materials form 60 percent and power and logistics are within the remaining 10 percent.

It is observed that several of these costs like raw material and power can be substantively reduced through measures like raw material pricing at international parity and by reducing inefficiencies in power tariffs. For instance, in Tiruppur, Surat and Ahemdabad, per day savings at a cluster level have been estimated to be to the tune of Rs 26 crores, Rs 6 crores and Rs 3 crores, respectively, on account of raw materials alone if these are available at international parity.

In most cases, with the introduction of such improvements, even the doubling of average wage rates will have no significant impact on the economic viability of an enterprise. The study highlights this with the help of a simple break-even point (BEP) analysis for a model unit.

Lastly, the report brings to light, the key difference between a poorly performing cluster like Bhiwandi in Maharashtra and a flourishing one like Tiruppur in Tamil Nadu. A prominent feature observed for those that are in better health is a more compact value chain, integrating garment with textiles, and availability of raw materials in proximity, thus reinforcing the point that cluster design is crucial for the overall betterment of labour as well as enterprise.

Overall, the report makes an argument that for demand to be available for facilitating growth, there is a need to improve wages on the demand side and correct distortions on the supply side. The latter can provide room to kick start the consumption cycle and contribute towards reducing inequality.[3]

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3   https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---actrav/documents/publication/wcms_168753.pdf

1. Introduction

The raison d'être of this report is the concern for increasing inequality both in terms of income and wealth. Today, the total wealth of India's top 63 billionaires is more than India's full-year budget. Her richest 1 percent has more than four-times the wealth held by the bottom 70 percent.[4]

On the other hand, the majority of India's workforce earns very low incomes. According to the World Bank estimates, 60 percent of Indians live on less than Rs 230 per day.[5] For an economy that is dependent on private consumption for nearly 60 percent of its GDP, this is worrisome.

Behind this overarching picture are many questions. For instance, what are the factors creating inequality? Is it high unemployment, underemployment, the lack of economic opportunities, inequitable policy landscape, factors like automation and digitisation, low wages, lack of affordable goods and services, supply-side distortions or the combination of all these and many more?

Figure 1: Engine of Growth
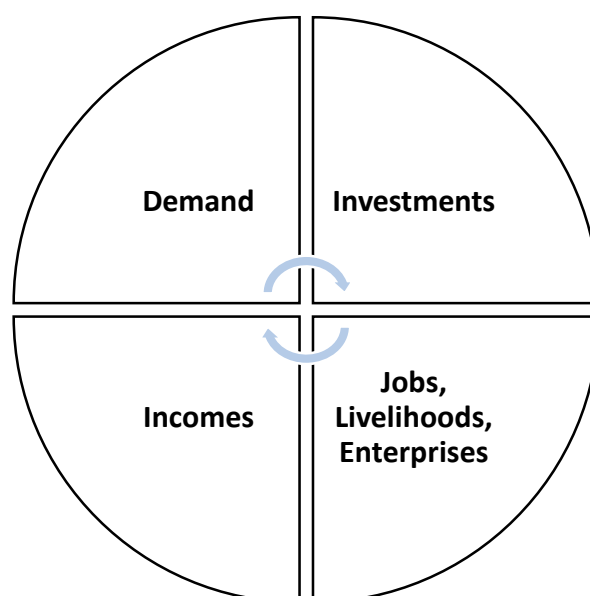
Source: *A New Industrial Policy for India*, CUTS International & Arun Maira

The engine of growth is driven by demand, leading to investment which results in the creation of enterprises and livelihoods and hence incomes which, in turn, generates demand. However, it appears that the factors causing inequality, when factored into the

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[4]   https://www.oxfam.org/en/india-extreme-inequality-numbers

[5]   https://data.worldbank.org/indicator/SI.POV.2DAY?locations=IN

cycle of growth turn it into a vicious cycle. Therefore, it is important to identify an appropriate entry point or a lens to diagnose the problem objectively.

Good and better jobs can be the lens through which this diagnosis could be effectively undertaken. In other words, if the factors preventing the creation of good and better jobs can be understood, it may lead to a more nuanced identification of some of the sources of inequality.

But for that, it is first important to understand what are good and better jobs?

2. Good and Better Jobs – Literature Review

The labour market is an important feature of industrialised societies. It is a factor that affects the supply as well as the demand side. For instance, labour productivity is critical to ensuring the overall productivity and competitiveness of an economy and hence it is important to have a skilled, healthy and satisfied workforce. On the other hand, people doing meaningful work and earning adequate incomes ensure consumption, thereby balancing the supply and demand side.[6]

It is in this light, 'overall quality of employment' becomes an important factor. It determines the direction in which the labour market is headed, and by implication, the economy in general.

As the dual processes of globalisation and liberalisation have generated continuous calls for labour market flexibility, employment conditions such as wages, job stability, and career prospects have changed. The employment conditions, therefore, has become at least as important a subject of study as traditional indicators, such as employment and unemployment rates.[7]

Arguably, the most important institutional attempt to mainstream 'labour welfare' has come from the International Labour Organisation (ILO) in its concept of 'decent work' which it launched and declared as an institutional priority in 1999.

However, as argued by Brenden *et al* (2013), the first attempts towards the development of quality dimension of work-life can be traced back to the 1960s-70s. In their paper '*The quality of employment and decent work: definitions, methodologies and ongoing debates*',

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[6] https://www.ilo.org/newdelhi/info/public/sp/WCMS_412430/lang--en/index.htm

[7] The quality of employment and decent work: definitions, methodologies and ongoing debates', Breden et al, 2013

they suggest that multiple and relatively diffused concepts of quality of employment have developed in parallels across geographies and institutions.

For instance, in the US, they became part of the social indicators movement in the mid-1960s, which stressed the importance of social accounts (such as economic & social status, savings, access to food, healthcare, shelter etc.) in guiding policy decisions while the EU started to focus on them almost in tandem with the ILO's launch of decent work agenda.

These movements brought about numerous concepts that constitute good and better jobs. Key amongst them are listed below:

- Workers own evaluation of their jobs as a way of measuring labour market outcomes
- Individual's self-development and autonomy
- Absence of undue physical effort as well as psychological stress
- Work-life balance focussing on work hours
- Workers' rights and voice in the community
- Adequate incomes and social security
- Tenure guarantee and job security through contractual obligations
- Safety at work

Despite the evolution of several indicators over some time, difficulties have been experienced in measuring and comparing them due to a high degree of subjectivity and non-standardisation, both within and outside countries. What also complicates the picture is the fact that some of them focus on the individual worker, some on the working environment and some look at the aggregate level.

It is for this reason that this study mainly considers one indicator i.e. income or wages. This is because the concept of wages, as explained by renowned economist, Nitin Desai in his paper: '*Work and Welfare*', essentially includes return that the worker gets for the application of physical and mental capacities and the acquired skills that he or she offers for the production of goods and services of value to consumers.[8]

Thus, it can be safely said that incomes/wages alone can be the 'main' criteria for good and better jobs. The only issue is that while it explicitly includes attributes like capability enhancement, to a layman it seems to exclude other equally important attributes like social security, voice/agency and working conditions which also contribute to overall job satisfaction.

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[8] https://www.academia.edu/38801818/Work_and_Welfare

To address this situation and provide greater clarity on whether attributes other than income (such as social security, voice/agency, working conditions, and job satisfaction) are indeed addressed in our labour-intensive sectors, the study also provides a snap insight of workers' perception on these other parameters. (**Please refer to section 6**). For this purpose, different attributes of good and better jobs have been allocated as follows in Table 1.

Table 1: Framework for Good and Better Jobs[9]				
	Domain	**Explanation**	**Existing benchmark(s) in India (formal)**	**Indicators (formal and informal)**
Good				
1	Income	• The job should provide an adequate real income for the worker and her dependents • Incomes should increase with gains in productivity	Poverty line; minimum wage; the cost of living; government pay scale (aspirational)	• Wages/earnings • Income from other sources • Assets • Number of dependents • Access to credit (for self-employed workers)
Better				
2	Security and social protection	The risk of a job loss should be low, and there should be some social protection available in case of job loss	Labour laws; EPF, pension schemes etc.	• No. of days employed in a year • Written contract • Social protection (PF, pension, paid leaves) • Ownership of land/assets (for self-employed workers)

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[9] This framework has been adapted from a literature review of various definitions of 'good' jobs or quality employment. In particular, it draws from the following studies: Azim Premji University (2018), '*State of Working India*' (https://cse.azimpremjiuniversity.edu.in/state-ofworking-India/); Carnegie UK Trust (2018), '*Measuring Good Work*' (https://d1ssu070pg2v9i.cloudfront.net/pex/carnegie_uk_trust/2018/09/03132405/Measuring-Good-Work-FINAL-03-09-18.pdf); Unni et al (2006), '*Decent Work Deficits in Informal Economy: Case of Surat*' (https://www.epw.in/journal/2006/21/review-labour-review-issues-specials/decent-work-deficits-informal-economy.html)

3	Working conditions	The working environment should be safe and healthy; working relations should be good (in the case of self-employed workers, this would include relations with buyers and sellers)	Labour laws; laws against harassment at the workplace	- Provisions for health and safety (formal or informal) - Peer support - Relations with manager
4	Capability enhancement	The worker should have opportunities to enhance her capabilities	Minimum Wages regulations	- Training/skilling programmes - Learning on the job - Prospects of promotion
5	Voice/agency	The worker should have a platform to voice her interests and concerns	Labour laws on unions	- Presence of trade union - Presence of informal associations
6	Job satisfaction (subjective)	The worker should feel reasonably satisfied with the job	N/A	- Comparison with the previous job - Perception about prospects - Other things the worker values (peer network, nature of work)

3. Objective of the Study

The broad objective of the study is to inquire into key labour-intensive sectors to assess some of the conditions in which good and better jobs can be created in the economy. This report presents findings, in this regard, from the Textiles and Clothing sector. A similar study is ongoing in the Food Processing sector. Prospective sectors for further sectoral expansion of the research include Tourism, Construction and Gig Economy.

4. Methodology

The study is divided into five parts, with each having a separate methodology. It may be noted that the broad methodology has been finalised collectively by the Project Advisory Committee (PAC) at the inception of the study (see Annexure 1 for details of the PAC).

The first part of the study focuses on the selection of labour-intensive clusters. For this purpose the methodology is based on the following:
- The existing levels of employment, as well as the potential for employment generation, should be high in the clusters to capture labour intensity
- Clusters in the supply chain spanning different geographies should form the basis of study to obtain a comprehensive perspective
- Clusters should subscribe to industries where demand growth is high or likely to be high to capture the larger picture of jobs and demand creation leading to higher economic growth
- Industries should be such, which cater to domestic demand as well as exports to look at quality job creation across enterprises catering to diverse markets

The second part of the research tries to gather the workers' perception, with a focus on the feedback from workers across various nodes of the value chain in the T&C sector on key parameters of good and better jobs. The methodology adopted for this includes informal discussions and Focus Group Discussions (FGDs) with the workers, contractors and managers of units. The multistakeholder focus has been adopted for ensuring triangulation and validation of data.

The third part of the research attempts to factor in the variations in the perception of good and better amongst different stakeholders and from one cluster to another. The study has focussed on a comparison between real wages of workers working in a factory *vis-à-vis* the real wages if they were to potentially work under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) at their source destination. For this purpose, it is assumed that in the absence of a job in a factory, the preferred option for an unskilled worker will be to rely on agricultural wages from MGNREGA. The comparison has been facilitated by adjusting the industrial and agricultural wages using the Consumer Price Index (CPI) for Industrial Workers (The base year 2001) and CPI for Agricultural Labour[10] (The base year 2001) respectively. The CPI values for industrial workers have been taken for the states in which the workers are currently working. Similarly, the CPI values for agricultural labour has been considered for the source states

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[10] State specific CPI values for Agricultural labour were only available with base year 1986. This was converted to CPI with base year 2001 by using the aggregate value for CPI Agricultural labour for 2001.

of the migrant workers.[11]

Thereafter, in the fourth section, the study has focussed on inter-cluster comparisons, by looking at the unit costs of key processes. The methodology for calculating the unit cost of key processes has been provided in Annexure 2.

Lastly, a BEP analysis has been carried out to compare clusters in three different locations for a model enterprise, to provide the reader with an analytical view of the extent to which labour costs affect the productivity and competitiveness of an enterprise. This is particularly relevant in light of the popular narrative that labour is a significant factor stalling the productivity and competitiveness of manufacturing. The BEP analysis has been conducted for different cost and growth scenarios. Details of the methodology used for the BEP analysis has been provided in Annexure 2.

5. Selection of the Sector

Based on the above-stated methodology, the T&C sector has been chosen as the first sector for examination. It may be noted that as per official data,[12] the sector employs 45 million people making it the biggest employer after agriculture. The sector is also spread across different states in India (such as Tamil Nadu, Gujarat, Rajasthan, Punjab, Haryana and UP amongst others) and cater to both domestic as well as international demand, thereby satisfying all the conditions mentioned under the methodology for the first section of this study. Figure 2 depicts the value chain of the T&C sector:

Figure 2: Value Chain of the Textiles and Clothing Sector

Fibre Production	Yarn Production	Textile Manufacture	Textile Processing	Apparel Manufacture	Wholesale	Retail
• Ginning (cotton)	• Spinning	• Weaving • Knitting	• Dyeing • Printing • Finishing	• Design • Cutting, stitching • Branding	• Packaging • Warehousing • Logistics	• Marketing • Customer Service

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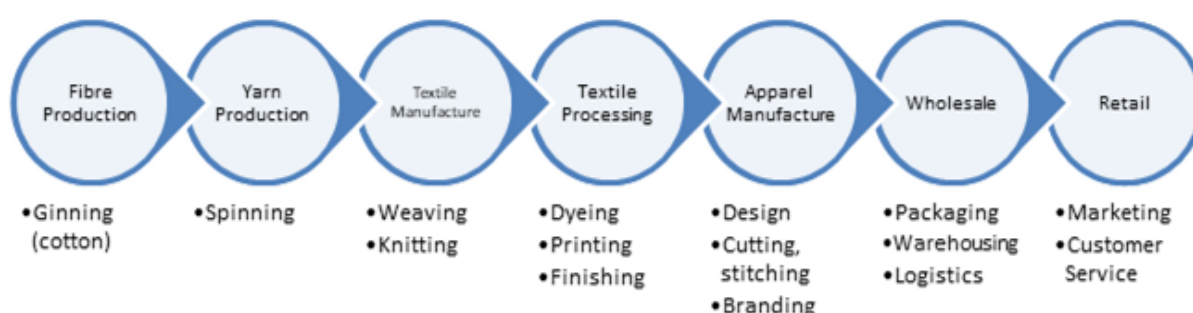
[11] It must be noted that this is a broad analysis and does not take into account factors such as cost of migration incurred by the migrant worker or the impact of remittances on the real wages of the worker

[12] http://www.texmin.nic.in/sites/default/files/AnnualReport2017-18%28English%29.pdf

6. A Bird's Eye View of Parameters for Good and Better Jobs in Selected Textiles and Clothing Clusters

Table 2 summarises the key findings on the parameter for good and better jobs that have been collected from diverse categories of workers employed across various clusters, including Bhilwara, Jaipur, Kota, Ahmedabad, Surat, Panipat, Ludhiana, Coimbatore, Tiruppur and Bhiwandi.

The main processes involved in the textile sector include spinning, weaving and processing. Enterprises involved in these processes employ machine operators for spindles, power looms and stenter machines in addition to technicians, administrative staff and helpers. Other than these core workers the factory floor also has unskilled manual workers for grading, packaging, loading and unloading activities.

In a garment factory, the main processes include raw material procurement, cutting, stitching, packaging and quality check. Apart from tailors, who are the core workers these enterprises also employ designers, machine operators, manual quality checkers unskilled helpers.

Sl.No.	Textiles & Clothing Clusters T = Textile C = Clothing H = Handloom	Wages	Scope of Skill Enhancement V=Vertical[13]; H=Horizontal[14]	Compliance with the Social Security standards	Working conditions (conducive to worker productivity and well-being)	Whether Labour Unions are active?
		Table 2: Cluster-wise snapshot of existing workers' conditions				
1.	Bhilwara (T)	Helper-Rs 5,000-6,000 Spinner –Rs 7,000-10,000 Weaver- Rs 7,000-10,000 Dyer- Rs 8,000-10,000	V (Yes), H (No)	No	Unsatisfactory	No
2.	Jaipur (C)	Helper- Rs 6,000-7,000 Stitcher- Rs 12,000-16,000	V (Yes), H (No)	No	Unsatisfactory	No
3.	Kaithoon (Kota) (H)	Handloom Weaver- Rs 8,000-12,000	V (Yes), H (No)	No	The work is carried out in households, hence relatively better conditions	No
4.	Ahmedabad (C)	Helper- Rs 4,000-6,000 Dyer- Rs 8000-10000 Stitcher- Rs 12,000-14,000	V (Yes), H (No)	No	Unsatisfactory	No

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[13] Vertical skill enhancement refers to the opportunity available with the workers within a single component of Textile & Apparel value chain (E.g. Helper→Machine Operator→ Technical Assistant→Floor Supervisor).

[14] Horizontal skill enhancement refers to the opportunity available with the workers from one to the other components of Textile & Apparel value chain (E,g, Spinning machine operator--> Power loom operator → Dyeing machine (Stenter) operator→ Tailor).

5.	Surat (T)	Helper- Rs 5,000-6,000 Weaver- Rs 8,000-10,000	V (Yes), H (No)	No	Unsatisfactory	No
6.	Panipat (T)	Helper-Rs 5,000-6,000k Weaver-Rs 8,000-11,000 Dyer-Rs 7,000-10,000	V (Yes), H (No)	No	Unsatisfactory	No
7.	Ludhiana (C)	Helper-Rs 5,000-6,000 Weaver/Knitter-Rs 7,000-9,000 Dyer-Rs 7,000-9,000 Stitcher-Rs 7,000-12,000	V (Yes), H (No)	No	Unsatisfactory	No
8.	Coimbatore (T)	Helper- Rs 5000-6000 Spinner- Rs 8000-10000	V (Yes), H (No)	No	Unsatisfactory	No
9.	Tiruppur (T&C)	Helper- Rs 7,000-9,000 Weaver/Knitter- Rs 10,000-14,000 Dyer-Rs 8,000-10,000 Stitcher-Rs 12,000-16,000	V (Yes), H (Yes)	No	Good	No
10.	Bhiwandi (T)	Helper- Rs 6,000-7,000 Weaver/Knitter-Rs 8,000-10,000	V (Yes), H (No)	No	Unsatisfactory	No

Most T&C clusters are dotted with few large enterprises and many small ones. While there is compliance with existing labour laws in large units, the smaller units which mostly do subcontract work, there is barely any focus on labour welfare. There are several reasons for such non-compliance such as lack of working capital with the small enterprises, seasonality of work, uncertainty in work orders etc. This is most evident in longer working hours and low wages, often below the legal minimum wage.

In general, T&C workers are in abundance in most clusters yet at an enterprise level, there is a shortage of workers, as most of them do not work for long durations at one enterprise due to unavailability/uncertainty of continuous work. To ensure continuity of the workforce, enterprises rely on contractors. This surplus (overall availability) and shortage (availability at an enterprise level) phenomena end up mitigating the bargaining power of workers.

Further, the workers, across the plethora of enterprises, are exposed to hazardous working conditions that often pose as a health risk for them. Table 3 summarises the different kinds of occupational hazards for labour in the T&C sector and the protection measures which have been put in place for tackling them. Field insights reveal that the protection measures are only prevalent in large enterprises while the workforce in small enterprises continues to be at a higher risk.

Table 3: Different Kinds of Occupational Hazards and the Protection Measures		
Process	**Occupational Hazard**	**Protection Measures**
Spinning	Heavy machinery running on high power; Loud noise of spindle operations; Presence of cotton strands in the air inside the cotton spinning mills	Earplugs for noise control, masks and precautionary signage for heavy machinery (in large enterprises)
Weaving	Heavy machinery running on high power; Loud noise of power loom operations	Precautionary signage for heavy machinery (in large enterprises)
Processing	High temperatures on the factory floor; Steam burns from steam pipes connected to rollers; Fly ash burning fuel in boilers	Electrostatic precipitators for removing fly ash (in large enterprises)
Garment Manufacturing	Steam burns from boilers and ironing	NA

A peek into the gendered dimension of worker well-being reveals issues of wage discrimination, gendered stereotyping of work and sexual harassment at the workplace. Insights from the field reveal that female workers are paid at least Rs. 50 to 150 (per day) less than their male counterparts, depending on the nature of work. In small and large enterprises alike, male workers are preferred for advanced machinery related works. Further, activities such as stitching, manual packaging of finished products and manual grading of raw material tend to be female-dominated, reiterating the stereotyping of work in the T&C sectors.

The textile workers face severe economic, psychological and physical stress which is exacerbated due to an array of factors such as low quality of human capital, lower education levels, an abundance of the workforce, a high percentage of migrant workers and ineffective labour unions, amongst others. Figures 3 and 4 provide an overview of how some of these factors interact with each other and ultimately affect the worker. Figure 3 is for the textile sector and Figure 4 is for the clothing sector.

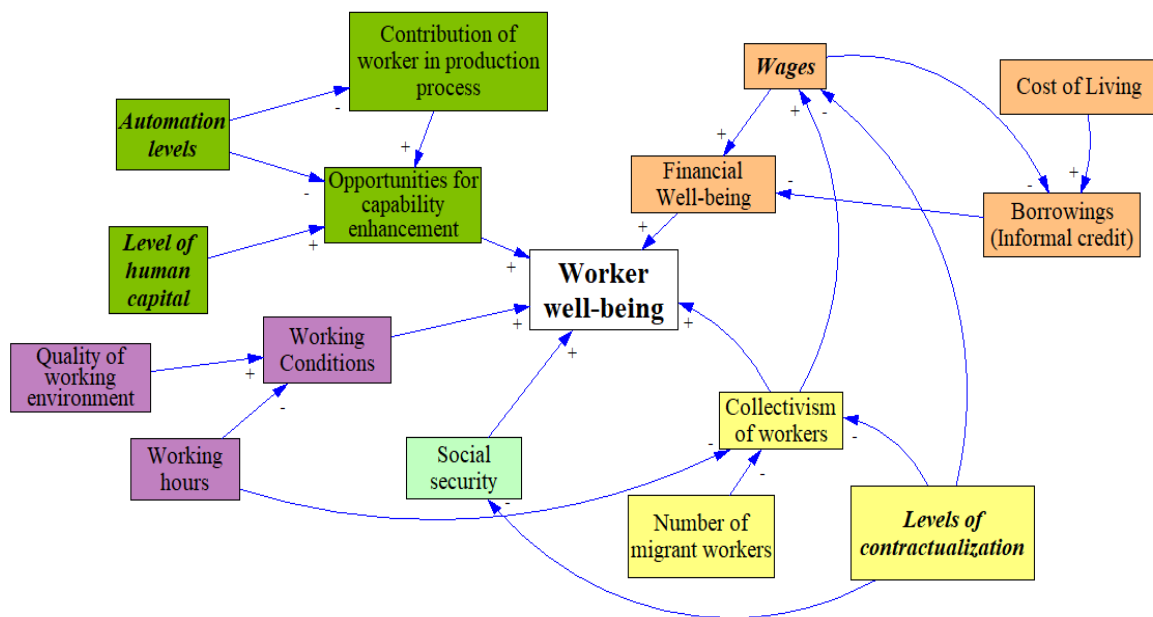**Figure 3: Systems Diagram for Worker Well-Being in the Textiles Sector**

Figure 4: Systems Diagram for Worker Well-Being in the Clothing Sector
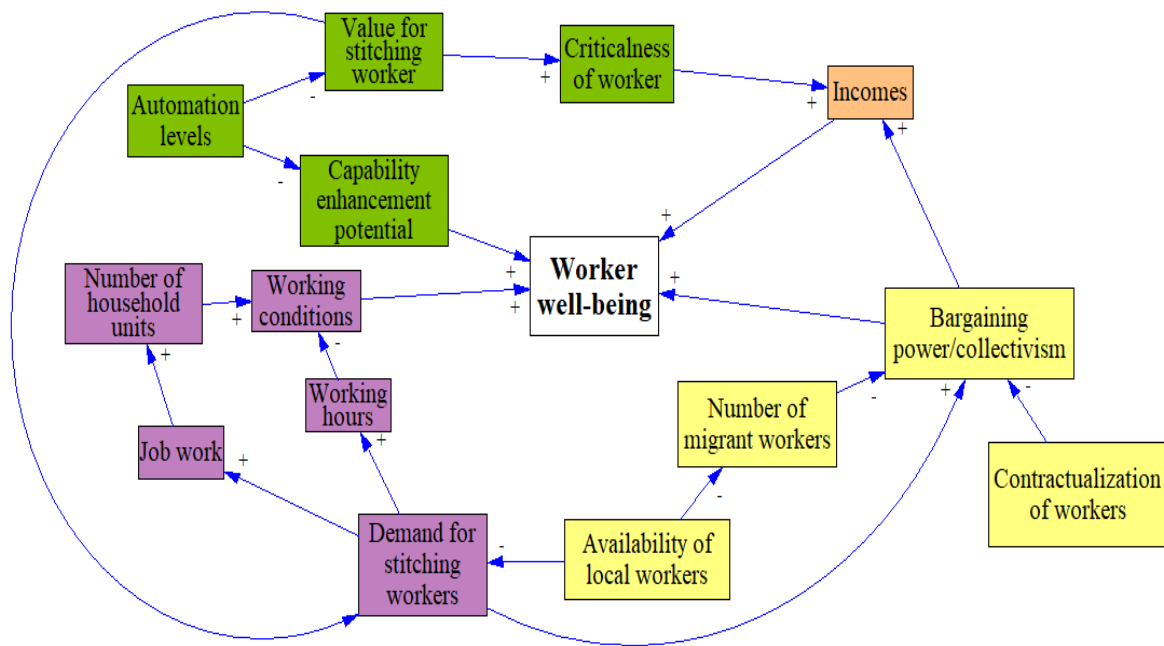
The subsystems which have been considered in the systems diagram are incomes, collective bargaining power of workers, working conditions (including working hours and workplace safety) and opportunities for skill enhancement. Each of these subsystems is creating a reinforcing effect on worker well-being, highlighting their importance in the pursuit of good and better jobs.

In the textile industry processes, automation levels are higher as compared to the clothing sector process. In some cases, there is also a prevalence of advanced technology such as conveyor belts for packaging. As depicted in Figure 3 and 4, higher automation levels have led to lower chances of vertical growth for the workforce, at their existing skill level. Skill-building initiatives for the workers are also few, reducing the chances for capability enhancement.

The enterprises hire a large number of contractual workers, through contractors who may or may not be licenced. Thus, these workers are often not on any official payroll and do not enjoy the benefits of social security. Adding to that, that fact that majority of them are migrants leads to a lower collective voice. Along with these factors, poor working conditions, sub-optimal wages and high cost of living have an impact on worker wellbeing.

From these systems diagrams, it is also evident that the value for a worker in an enterprise is more conspicuous in the clothing sector than textiles. The reason for this is a greater demand for labour skills in the clothing sector as compared to the textile sector,

where operations are machine-based to a large extent. However, with processes, such as cutting and packaging moving towards automation, there is a looming threat to the clothing sector as well.

7. An income-based comparison of Good and Better Jobs

This section brings to light comparison between real incomes[15] at the job destination and real incomes at the source location to understand where a worker is better off, in terms of incomes. At the job destination, in a textile enterprise, work for four different skill levels of the workers i.e. unskilled, semi-skilled low hazardous, semi-skilled hazardous and skilled has been considered. On the other hand, for the source location, work under the MGNREGA scheme has been considered for comparison.

According to insights from the field it can be inferred that workers across the 8 clusters that have been studied, usually come from Rajasthan, Uttar Pradesh, Bihar, West Bengal, Odisha and Tamil Nadu. Table 4 summarises the key findings.

Table 4: A Comparison of wages of unskilled, semi-skilled and skilled workers				
Job Destination	**CPI (the base year 2001) Adjusted Monthly Industrial Wage (INR)**			
Textile Cluster	**Unskilled (Helper, Cleaner, etc.)**	**Semi-skilled Low Hazardous (Machine operators in spinning and weaving)**	**Semi-skilled Hazardous (Machine operators is processing and dyeing)**	**Skilled (Tailor, Designer, Administrative Staff, etc.)**
Ahmedabad	1736.1	NA	3125.0	4513.9
Surat	1978.4	3237.4	NA	NA
Ludhiana	1840.0	2676.3	2676.3	3178.1
Panipat	1967.2	3397.9	3040.2	NA
Jaipur	2074.5	NA	NA	4468.1
Bhilwara	1858.1	2871.6	3040.5	NA
Coimbatore	1896.6	3103.4	NA	NA
Tiruppur	2353.6	4034.7	3026.1	4707.2

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[15] Incomes adjusted for rate of inflation

Home Destination (State-wise)	CPI (the base year 2001) Adjusted Monthly Average Agricultural Wage (INR)
Rajasthan	1993.7
Uttar Pradesh	2167.1
Bihar	2211.7
West Bengal	2336.1
Odisha	2331.1
Tamil Nadu	2146.9

A comparison of the monthly real agricultural wages for these workers, in a situation where they remain in their home location, with the monthly real industrial wage that they are entitled to in their host location, highlight that a worker engaged in an unskilled job is better off at his home destination. Only in case of the Jaipur and Tiruppur, which are integrated clusters,[16] the real industrial wages are comparable with the real agricultural wages.

For workers engaged in semi-skilled low hazardous, semi-skilled hazardous and skilled jobs, real incomes in their current engagements are better off compared to those at their home destination. However, for these higher-skilled job roles, there is a need for establishing a robust and continuous skill development mechanism at the grassroots level.

8. A Snapshot of the Unit Cost of Key Processes

Table 5: The Location, Process and Unit Cost of Production in a Nutshell		
Location	Process	Prevailing Unit Cost of Production
Bhiwandi	Weaving	Rs 18.35/ meter
Tiruppur	Knitting[17]	Rs 25.50/meter
	Processing	Rs 5.63/meter
	Stitching	Rs 45.94/meter

[16] Clusters where finished products of the T&C value chain i.e. garments are being manufactured

[17] Process of conversion of fibre to yarn using specialised circular knitting machines

Surat	Weaving	Rs 16.62/meter
Coimbatore	Spinning	Rs 90.00/meter
Ahmedabad	Ginning	Rs 141.66/kg
Panipat	Shoddy (fabric)	Rs 28.27/meter
	Dyeing	Rs 6.85/kg

It is important to note that the high unit cost of production in Tiruppur is not on account of greater inefficiencies. On the contrary, Tiruppur is one of the most efficient weaving/knitting clusters in the country. The high unit cost in Tiruppur is on account of using different raw material, which is essentially cotton. Bhiwandi and Surat, on the other hand, use polyester and viscose along with cotton which brings down the overall cost of raw material.

9. BEP Analysis across Three Weaving Clusters: Bhiwandi, Surat and Tiruppur

As discussed in Section 4, only three clusters have been considered for a BEP analysis. These are Bhiwandi, Surat and Tiruppur (see Annexure 2 for a cluster-wise overview). The three clusters have been selected for two key reasons. Firstly, all three clusters have weaving as a predominant activity and therefore comparisons across a common activity can provide better insights. Secondly, BEP comparison becomes richer as these clusters can be ranked differently in terms of their efficiency.

Table 6 provides a summary of the comparison in the three clusters. It may be noted here that in each case four sales growth rates have been considered. They range from two to four percent. This is based on the feedback received from the enterprises in different locations. On average, their sales growth has fluctuated in this range in the last five years. Further, the clusters are also compared across two uniform scenarios i.e. BEP under prevailing prices, and BEP when cost reduction measures are introduced in raw material, power and logistics and wages are increased.

Note: For this study, a model enterprise in the context of a comparison of different power loom clusters, is one with 15 looms. This is based on the average number of looms per enterprise based on data from all weaving clusters visited. Further, It may be noted that to make the report compact, only three clusters have been compared on a single common process.

Cluster	Scenario	-2% growth	0% growth	2% growth	4% growth
Table 6: BEP for a Model Power Loom Enterprise under Different Growth Rates[18]					
Bhiwandi	At prevailing rates	Not achievable	Not achievable	Not achievable	5 years
	With cost reduction measures and increased wages	Not achievable	Not achievable	6 years	2 years
Tiruppur	At prevailing rates	Profit from COB[19] for 3 years and then the loss	Profit from COB for 4 years and then the loss	Profit from COBfor 7 years and then the loss	Constant profit from COB
	With cost reduction measures and increased wages	Profit from COB for 6 years and then the loss	Profit from COB for 14 years and then the loss	Constant profit from COB	Constant profit from COB (higher than 2% growth scenario)
Surat	At prevailing rates	Not achievable	Not achievable	Not achievable	6 years
	With cost reduction measures and increased wages	Profit from COB for 2 years and then the loss	Profit from COB for 4 years and then the loss	Constant profit from COB	Constant profit from COB (higher than 2% growth scenario)

In Bhiwandi, it is observed that for a model enterprise to operate in an economically viable manner, the sales growth rate should be a minimum of four percent. Only, in that case, the enterprise will break even after five years. However, the viability of a model enterprise significantly improves when the raw material cost is at international parity,

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[18] Calculations have been done for a 15-year period since commencement of business

[19] Commencement of Business

energy cost is at the lowest slab in the country, interest, as well as capital subsidies, are provided as per the Maharashtra Textile Policy draft (2017-22) and the wage rates are increased to Rs 375 per day, i.e. the proposed rate as per the recommendation of a High-Powered Panel of Ministry of Labour. In such a case, a model enterprise will break even at two percent growth in 6 years, even after an increase in wage rates.

In Surat, a model enterprise will become viable at four percent sales growth rate after six years in the prevailing scenario of costs and revenues. However, upon introducing cost-reduction measures like international price parity of raw material and power tariff reduction, an enterprise can become much more viable even with increased wage rates of Rs 375/day being applicable since COB. The model enterprise can become profitable from COB even in two percent growth scenario.

In Tiruppur, under the prevailing scenario of costs and revenues, a new model enterprise will be profitable from COB onwards but for it to retain sustainable profits for more than 15 years, a four percent sales growth rate is required. With cost reduction measures mainly in raw material and power tariff, the model enterprise can achieve sustainable and profitable growth even at two percent growth scenario and that too despite higher wages of Rs 375/day.

In other words, the Bhiwandi cluster is one of the lowest-performing clusters, Tiruppur is amongst the best performing clusters in India and Surat can be considered as an average performing cluster.

Summing up, while the BEP analysis has been conducted only for three weaving clusters across different geographies, it leads to certain general interpretations. For instance, the competitiveness of an enterprise most significantly depends on raw material followed by power, logistics and labour costs (not necessarily in that order). In other words, the competitiveness of India's textile clusters can significantly improve just on account of the reduction in raw material cost by ensuring international price parity.

To achieve this parity diverse interventions could be envisaged. One way to do this will be a reduction in production costs for the primary raw material required in the manufacturing of fibres (E.g. agricultural costs in cotton production for cotton fibre; manufacturing costs in polyester and other related petroleum products for manmade fibre.

Another intervention in this regard will be restructuring import duty structures to enable competitiveness while at the same time protecting the domestic fibre manufacturing industries. However, such interventions will involve transaction costs and structural

problems of their own, which is beyond the scope of this study.

This will be true even for non-weaving clusters. Table 7 provides an idea of the quantum of financial gain that can be made at the cluster level if raw material prices were at international parity.

Table 7: Financial Gain at Cluster Level if Prices of Raw Material were at International Parity		
Location	**Process**	**Gains (in crores a day) at international price parity**
Tiruppur	Knitting	26 crores
	Processing	
	Garments	
Surat	Weaving	14.03 crores
Coimbatore	Spinning	5.7 crores
Ahmedabad	Ginning	3.2 crores

10. Conclusion and Recommendations

One of the key conclusions of this report is that wages can be substantively increased without compromising on the competitiveness of an enterprise, provided distortions in other costs on the supply-side are addressed. It is also clear that the focus of the apparel sector has greater promise for higher wages and better jobs for workers engaged in core processes when compared with the textile sector. This ensures value for human skills.

Evidence shows that compact clusters with tightly integrated T&C nodes generate better financial outcomes at an aggregate level and therefore cluster design should ensure that.

There is also a need to do a source analysis of places where most of the workers come from and why similar industries cannot be set up there. Taking jobs to people will also ensure greater political agency for the workers.

Recommendations

Data: There is a high variance in labour data that is available from different sources. The official figures and local feedback do not match in many cases. To better assess labour based productivity and work towards the creation of good and better jobs, it is imperative

to have a comprehensive, accurate and regularly updated database on labour force in each cluster.

Wages and Social Security: The textile sector is characterised by informality, low incomes and negligible social security for workers across India. One of the many reasons for such characterisation is a large presence of informal, micro and small enterprises increased automation and relatively lesser value addition by the workers. Though the Apparel sector offers relatively more value addition and thus better wages, it too fails to accord social security to the workers.

For informal, micro and small enterprises, the modus–operandi of evading minimum wage requirements and social security obligation is by not expanding to more than 9 employees. For medium and big enterprises, it is via abolishing direct relation between the enterprise and worker. These enterprises prefer to hire workers through a contractor and most of the time sub-let their work to other smaller enterprises to evade legal compliances.

Even though India has a new law, Code of Wages, which is meant to reach out to all 50 crore workers, as opposed to the previous disaggregated legal regimes, which not only suffered from sub-optimal coverage but also poor compliance, it is yet to be seen how effective it will be.

Some of the factors/measures that the state can focus on in the new wage regime can be as follows:
- Ensure that the National Floor Wage is not used to lower wages where they are already higher than the proposed benchmark. It should be leveraged to get those getting paid less than that to come at par at least while those above it to continue with that.
- To achieve the above, dedicate more ministerial/departmental resources in monitoring and ensuring compliance. This can also be facilitated by incentivising compliance through linking of good business practices with the availability of finance and growth opportunities, amongst others.
- Hazardous occupations should be paid more without compromising on occupational health and safety. Under the Code, a government may take into account the arduousness or hazardousness of a particular occupation to fix the wage.
- The net effect of the piece-rate system is negative even though it is supposed to induce efficiency and competition in the workforce. Enforcing floor-level wages or minimum wages in such operations will indeed be difficult but is the need of the hour.

- The state must also ensure adequate social security for all informal workers including interstate migrant workers as well.

Occupational Health and Safety: The State and relevant departments (For example Department of Industrial Safety and Health, Gujarat) must ensure the implementation of existing rules and regulations related to occupational health and safety. For this purpose, effective and continuous monitoring of enterprises by leveraging technology is imperative. This may be facilitated with the help of advanced remote monitoring systems such as drones.

Skill Development: Skill development initiatives need to be introduced across the spectrum of jobs through a concerted effort of the government and the enterprises. While the relevant government departments should focus on overall skill development through free certification courses, the enterprises must also introduce training modules or courses on on-the-job skills.

Cluster Related: The government may like to create adequate incentives to create more compact clusters. Ideally, the three key processes of textile i.e. spinning, weaving/knitting and processing must be proximate to garment and retail. This will obviate the need to have traders which in turn can lead to higher margins for enterprises.

Source Analysis: The T&C sector is dominated by migrant workers coming from poorer states. There is a need to carry out a source analysis, i.e. analysis of those regions from where such workers are coming. The purpose of doing such an analysis would be to assess the feasibility to take similar jobs near the source of labour. This can create a greater spread of industrial activity and increased political agency for the workers. There is a conspicuous absence of medium size composite mills and integrated supply chain.

Sorting Out of Supply-side Distortions: There is a need to focus on supply-side costs, particularly, raw material cost and ensuring international price parity. Furthermore, in a value chain raw material travels continuously from one node to another, logistics also assumes quite a significant proportion in overall efficiency. At the same time on the factory floor power tariffs are crucial, especially as the unit grows bigger. A more granular study needs to be carried out to ensure how greater efficiencies can be ensured on the supply side. One way to do it is to have a more open trade stance so that increased competition creates more responsive outcomes.

The Compact between the State, the Industry and the Community: There is a need for greater collaboration between the State, businesses and the worker community. They need to enter into a compact where the state essentially focuses on correcting supply-side distortions and the industry passes substantial efficiency gains to the labour and also

creates processes where the skill of labour is valued. Also, there is a need for constructive contribution from the worker community through a voice or agency to ensure holistic growth. At an aggregate level, this will bring about the best guarantee against consumption slowdown.

11. Issues to be Taken Forward

This section outlines key issues that have come up during the study of good and better jobs in the T&C sectors but will be dealt with in-depth during the study of the upcoming sectors.

Firstly, in the T&C sector, it has been observed that there are possibilities of significant efficiency gains by procuring raw material at international parity. Similarly, there are other such supply-side factors such as power costs, logistics costs and financial costs, which need to be looked into when looking at enterprise well-being.

Secondly, throughout the study, field insights have revealed the prevalence of demand-side distortions such as the absence of market linkages and lack of effective policy for ensuring market access. An assessment of the demand-side factors, in the upcoming sectors will provide a nuanced outlook of the problems being faced by enterprises.

Thirdly, the plight of informal workers, including migrant workers, due to lack of a legal identity, social security and financial security, is evident across sectors and has been substantiated by field insights from the T&C sector. This necessitates the need for the development of a Social Protection Framework for the informal workforce. Key concerns of the workers, in this context, can be collected from the study of the upcoming sectors which can then be taken forward for developing a consolidated and yet targeted framework.

Annexure 1
Details of the Project Advisory Committee

S.No.	Name	Profile
1	Arun Maira	Former Member, Planning Commission of India
2	Sudipto Mundle	Emeritus Professor & Board Member, NIPFP
3	Amit Kapoor	President, Institute for Competitiveness
4	Gautam Mody	Secretary, New Trade Union Initiative
5	Himanshu	Associate Professor, Jawaharlal Nehru University
6	R. Nagaraj	Professor, Indira Gandhi Institute of Development Research
7	Sabina Dewan	President and Executive Director, Just Jobs Network
8	Rituparna Chakraborty	Co-Founder and Executive Vice President, TeamLease Services Ltd.
9	Srinivasan Iyer	Programme Officer, Ford Foundation
10	Radhicka Kapoor	Fellow, ICRIER

Annexure 2
Methodology for Unit Cost Calculation

2.1 Analysis of Cost of Production

To capture these issues, an analysis of the cost of production across the textile value chain was carried out across multiple locations in India. This was supplemented by an *ex-ante* financial analysis costs and revenues of a model enterprise in T&C sector across locations, to assess the viability of the concerned firm in the next 15 years of business.

2.2 Calculation of Cost of Production

Cost of production, for this analysis, includes the cost of procuring raw material (fibre for spinning enterprise, yarn for weaving/knitting enterprise and fabric for garment enterprise), energy, labour and logistics costs. The costs computed for the analysis are unit costs, implying cost incurred by the enterprise per unit production of output. The methodology followed for computing these costs is explained below:

2.2.1 Raw Material Cost

Cost of procurement of raw material by an enterprise is calculated for three different cases:

2.2.1.1 At Domestic Prices:
Information regarding the prevailing rates of domestically sourced raw material (fibre, yarn or fabric) at different locations was gathered through primary research during field inquiries. These prices were checked and verified from multiple sources, including the traders and online retailers.

2.2.1.2 At Imported Prices
Along with domestically sourced raw material, cost of production from imported raw material (from China) was also calculated to compare global competitiveness. This was calculated by using prevailing prices of raw material as on September 18, 2019 (available on www.emergingtextiles.com) and adding the various charges it would incur while traversing from source to the factory floor. This can be represented by the following equation:

"Cost of reaching factory floor in India = FOB Price (China) + Freight Charges from China to India (nearest port) + Landing charges at Indian Port (1%) + Customs Duty (prevailing rates) + Cost of inland freight from port to factory floor + GST"

2.2.1.3 At International Parity

In the third case, it was assumed that the prices of domestically sourced raw material have become the same as that of international prices (in China). This situation is termed as international price parity & related cost of production has been calculated for different locations and activities of the textile value chain.

2.2.2 Energy Cost

2.2.2.1 For spinning enterprises, the power cost is computed considering the following parameters

- Fixed and energy charges as per respective state's latest tariff order
- Capacity per spindle of 0.11kW
- Spindle running for 24 hours in a day and 30 days in a month (PLF=100%)
- 237.5 kg of yarn produced in a year per spindle

2.2.2.2 For weaving/knitting enterprise, the power cost is computed considering the following parameters

- Fixed charges and energy charges as per the respective state's latest tariff order.
- Capacity per loom of 0.37kW
- Loom running for 24 hours in a day and 30 days in a month (PLF=100%)
- 50 meter of daily production per loom.

2.2.3 Labour Cost

The cost of labour incurred by an enterprise is calculated based on per meter production of output. In other words, the costs incurred on labour by an enterprise to produce 1 meter of output (yarn or fabric) is computed. Again, two cases are considered:

- In the first case, the actual wages as reported from the field visits (checked and verified from multiple sources) were used to calculate the weighted average cost of labour.
- In the second case, it was assumed that the wages have become to the minimum rate as prescribed by the 7th Pay Commission, i.e. Rs 375/- per day.

2.2.4 Logistics Cost

Finally, the logistics cost was computed and added to the above three costs, to calculate the final unit cost of production. Logistics cost is used to denote the cost incurred on transportation of the finished product (yarn, fabric or garment) from the factory floor to the nearest prominent market. Two cases are considered:

- Firstly, the transportation cost of a finished product by road is computed using an online freight cost calculator (www.trucklife.com).

- In the second case, the transportation cost of the finished product by rail is computed using the freight calculator available on the IRCTC website.

Annexure 3

Methodology for Break-Even Point (BEP) Analysis

3.1 For a model enterprise (15 looms, knitting machines, spindles), costs and revenues (sales turnover/ top line) were projected for an *ex-ante* analysis.

3.2 For the projection of sales turnover, four growth rates were used, these being -2, 0 (stagnated growth), 2 and 4 percent respectively. This stems from the evidence gathered from anecdotal narrations from multiple stakeholders in the textile clusters visited.

3.3 For the projection of costs, two scenarios were considered. The first one provides an anticipatory assessment of cost and revenue projections of the model enterprise at the prevailing rates. The following rates and assumptions were assumed:

Assumptions	Amount	Unit
Capex required	100	Lakhs
Debt	70	Ratio
Equity	30	Ratio
Amount of debt	70	Lakhs
Amount of equity	30	Lakhs
Depreciation Cost	5%	of CAPEX (SLM)
Repayment	15	Years
Interest	12.5%	MCLR Rate
An escalation in RM cost	4%	Year-on-Year
Return on Equity	10%	Year-on-Year
The escalation in Labour cost	0%	Year-on-Year
The escalation in Energy Cost	4%	Year-on-Year
The escalation in Transportation Cost	4%	Year-on-Year

- CAPEX required is calculated by considering the approximate investment required for setting up the model enterprise (including land cost, civil works cost, plant and machinery cost and construction charges).
- Debt-equity ratio and depreciation rate are taken at the industrial norms of 70:30 and five percent (Straight Line Method) respectively.

- Repayment of loan: The repayment period is taken to be 15 years, no moratorium period and the interest rate at 12.5 percent (Marginal Cost of Lending Rate of State Bank of India).
- An escalation in raw material, energy and transportation costs is assumed at four percent year-on-year, considering the inflation targeting policy of India (2-6 percent).
- An escalation in labour cost is pegged at 0 percent due to evidence from ground suggesting no revisions in wages (at piece-rate) for the past 9 years in Bhiwandi.

3.4   In scenario two, the projections were done after assuming the following cost reduction measures:
- Raw material prices at international parity.
- Energy cost at national-minimum tariffs (Rs 70/kW fixed charge and Rs 3.45/unit energy charge) or at policy determined costs (Rs 2.9/unit as per Maharashtra Textile Policy).
- Complete modernisation of existing looms over the next 15 years.[20] Due to this, the CAPEX changes to 175 lakhs (from 100 lakhs) for the model enterprise and production per day changes to 75 meter of fabric per loom (from 50 meter of fabric per loom).
- After these cost reduction measures, the labour cost is changed from existing weighted average of wages of all types of workers in the enterprise to the national minimum level prescribed by the 7th Pay Commission (Rs 375 per day).

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[20]   Exclusively for Bhiwandi