

## **‘Governance’ for Cluster Upgrading: Implications for ‘Decent Work’ in Late Industrialising Regions.**

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The discourse on industrial development in low-income regions has moved small and medium enterprises (SMEs hereafter) from being framed as problems of industrial backwardness into sites for intervention to promote economic growth and development. Promotion of clusters of SMEs is seen as a solution to the twin problems of employment generation and building up competitiveness in the global market in many late industrialising countries. In addition to the quantity of employment generated, the strategy is also held to offer much in terms of quality, given the current global product market conditions. Supported by many multilateral agencies, simultaneous building up of competitiveness and creation of ‘decent work’ through cluster upgrading has become a key policy initiative in these countries, including India. Enabling clusters to enter into global production networks and move into more value adding segments has been invested with critical importance. Inherent to this strategy is the assumption that product market upgrading will lead to labour market upgrading and hence better outcomes for labour. Examining labour market changes in Tiruppur, a dynamic export oriented knitwear cluster in India, this paper questions the basis of such strategies and argues that under certain macro regimes, governance aimed at product market upgrading is unlikely to lead to labour market upgrading. Through this exercise, I identify the limitations of using the category of ‘governance’ to understand the prospects for economic actors in a cluster without understanding the structural features that enable one kind of governance over another.

The paper is structured as follows. To begin with, I elaborate the primary arguments and strategies for cluster promotion based on two key strands in literature; the industrial district and value chain literature. I then map the way in which ‘governance’ is used as an analytic construct to link the two sets of literature. Next, I discuss the evolution of the Tiruppur knitwear cluster, especially its upgrading efforts in global product markets. This is done against the backdrop of recent policy shifts in India with regard to industrial development and employment promotion particularly in the informal economy. We then move on to understand factors conditioning this process, focussing on governance within both the cluster and the value chain. In the following section, I relate these moves to the changing labour market conditions in the cluster covering different segments of the knitwear production. Finally, these observations are drawn into a discussion of the appropriateness of existing strategies and the perspectives inspiring their formulation. I argue that while upgrading in product markets may be a necessary condition to upgrade quality of work, it is by no means sufficient. Labour market outcomes are determined both horizontally and vertically; i.e, both in the

larger domestic economy, like skill formation, institutions fostering supply of labour, construction of gender and other differences and meanings of work, and sectorally, the global value chain, in this case (Fine 1998). Efforts to improve quality of work in low-income regions through building up competitiveness in the global market and through interventions via the value chain without effecting changes to the regional institutions and structural conditions that influence labour market outcomes, are likely to fail.

## **II Linking Clusters to Global Value Chains: Governance of Upgrading**

A key feature of contemporary capitalist accumulation is the emergence of non-mass markets or flexible product markets. Product markets that were once standardised are seen to be increasingly fragmented and/or marked by high product differentiation. Production structures need to therefore adapt to changes in design, size, volume and profile of output rapidly without loss of efficiency. The industrial cluster has emerged as a key organisational mechanism by which such scope economies can be obtained, an organisational form that has become important under contemporary regimes of flexible accumulation. Clusters of small firms specialising in various stages of production in a specific sector and networking with one another are seen as possible engines of industrial growth in policy initiatives in late industrialising economies. This perception is largely a result of the success of such small firm clusters in advanced capitalist economies which also offered better work and employment conditions for labour. Given the dynamism of product markets, labour had to be continually trained to equip with new skills to be deployed to cater to changing design requirements. Such labour, as a result, enjoys better incomes as well.

However, such industrial dynamism and welcome work and employment conditions are hard to come by in most clusters in late industrialising economies, leading to the coinage of the term 'low road' to flexibility marked by 'numerical' flexibility, ie, quantitative adjustments of the labour force, than work flexibility that offers more creative and autonomous work for labour. This phenomenon is attributed to predominance of 'passive competition' based on cheapening of labour costs as opposed to 'active' competition prevailing in the high-income regions through innovation, design and use of high and multi-skilled labour. Literature on industrial districts tell us that the presence of a strong inter-firm division of labour, a cooperative environment, presence of lead firms with 'strategic intent', and external intervention in provision of services are key requisites for active competition based on 'upgrading'. However, under current globalising conditions, it is increasingly found that in addition to locale level factors emphasised in ID literature, the ways in which clusters are embedded in global value chains is important to understand the prospects for clusters to

‘actively compete’. Literature on IDs increasingly emphasise the need to examine the mode of integration of clusters into global value chains to understand the potential and limits of active competition (Humphrey and Schmitz 2000). With a growing integration with global markets and attendant state emphasis on competing in global product markets, the synthesis offers better explanatory power to understand the prospects for clusters to upgrade.

Participation in global trade by low-income regions, in the past, has often led to stagnant incomes and rising inequalities despite improvements in quantum of economic activity. Low-income regions need to therefore alter their mode of integration into the world market, if they are to gain from global trade. ‘Global value chains’ has emerged as a useful analytical construct to understand the prospects of such integration. The literature on global value chains or production networks owes its origins to two distinct strands, but the distinctions are increasingly blurred with its incorporation into policy making. This distinction however needs to be retained and emphasised if it is to be of any relevance to understand labour market outcomes. One stream of analyses rooted in political economy, arises from the world systems perspective defines the commodity chain as "a network of labour and production processes whose end result is a finished commodity" (Hopkins and Wallerstein 1986, 159). It enables analysis of how specific industries are organised globally, discern the mechanisms of surplus extraction at various points and of coordination of dispersed labour and exchange processes.<sup>1</sup> While such a perspective places equal emphasis on processes of surplus extraction and distribution, the other variant has its origins in the category of supply chains used in business school literature. Here the emphasis is on minimising of costs and time at each stage. The supply chain resembles more like an input-output table with little emphasis on relations of production within each node. With the emphasis on cluster promotion, there is a blurring of this conceptual distinction, and literature has begun to focus on the ways and means by which firms/clusters in the periphery can beneficially participate in global value chains (Gereffi and Kaplinsky 2001). The blurring also means that there is less concern about production and labour processes within a node in comparison to relations between nodes. The thrust here is more on distribution of value across different segments of the value chain. Here, value chains essentially depict the entire range of activities involved in the production and sale of a good or service.<sup>2</sup> Kaplinsky (2000), Schmitz and Humphrey (2001) Gereffi and Kaplinsky (2001),

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<sup>1</sup> In fact, this perspective has been mooted to advance the NIDL’s explanatory power by moving away from nation-states as units of analysis and allowing space for peripheral regions to serve multiple roles in the global division of labour.

<sup>2</sup> In the words of Kaplinsky, “The value chain describes the full range of activities which are required to bring a product or service from conception, through the intermediary phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use” (2000, 121).

argue that the concept does provide us with a rich analytical tool to comprehend processes of industrialisation in a context of enhanced globalisation of economic activity. Kaplinsky identifies three key components of value chains around which analyses need to be based: barriers to entry and consequent rent, governance and systemic efficiency.

Higher the barrier to entry or more the scarcity, greater would be the returns. When a firm or a cluster in a global value chain is engaged in activities with low barriers to entry like labour-intensive, low skilled activities, the rents derived tend to be lower and dissipate much faster. Such competition soon translates into lower prices, and hence, immiserising growth. Clusters embedded in value chains ought to therefore derive rents through innovation in process or product rather than through the low-cost advantage. This process of industrial upgrading is seen to be an increasingly important attribute for beneficial participation in world trade. By industrial upgrading, we refer to the ability of firms or a cluster to either enhance the extent of value-addition or move into segments of value chain where rents derived are higher, and often rely on skill or knowledge intensity.<sup>3</sup> The literature, in addressing the way power is dispersed along the value chain, points to the constraints and opportunities available for clusters in peripheral economies to undertake such upgrading.

The ability, Kaplinsky points out, hinges crucially upon 'governance', i.e, the non-market coordination of economic activities (2000). Non-market forms of coordination like firms or networks of firms too govern economic activities supported by institutions in the public domain like government policy frameworks, regulatory and support institutions, etc. (Gereffi 1999; Gereffi, Humphrey, Kaplinsky and Sturgeon 2001; Gereffi and Kaplinsky 2001; Gibbon 2000). Kaplinsky (2000), drawing upon literature on civil society governance, distinguishes three forms of governance that can be exercised within a cluster or a value chain; 'legislative governance' refers to formulation of standards or rules for action either by lead firms in the value chain or state institutions; 'Judicial governance' mechanisms to monitor and ensure that such rules or standards are complied with. Finally, firms need to be provided with additional support resources like access to credit or new technologies to fulfil some of the requirements. Governance can therefore also take on an 'executive' role. Together, these forms of governance are said to condition the mode of upgrading. Such governance can also be exercised by agents external to the value chain, but operating in

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<sup>3</sup> Humphrey and Schmitz (2000) classify various types of upgrading. Firms can upgrade their production process, whereby they improve the efficiency with which firms transform inputs to outputs. Or else, firms may undertake product upgrading, leading to increased unit value addition due to improved quality or sophistication. Third, firms may extend the range of activities that they undertake to include say design or marketing, thereby increasing the number of value-adding activities undertaken within a firm or cluster's boundaries. Or else, they may use expertise gained in one value chain to move into other value chains.

institutions in which firms or clusters are embedded, like producer or labour associations, public and/or public-private institutions.

The above discussion clearly indicates areas where cluster level endowments can interact with forms of governance in the value chain to facilitate upgrading or otherwise. Governance mechanisms, at the cluster level, be it by lead firms or producer associations, or by local governments ought to be supported by chain level governance. Empirical studies based on this approach have indeed brought out useful lessons for policy making (Giuliani, Pietrobelli, Rabellotti 2005; Humphrey 2004; Murphy 2007; De Propris and Wei 2007). But they hardly refer to labour market implications of upgrading in the product market. And even when they do, they see labour market outcomes purely as an outcome of product market upgrading. Labour market upgrading is seen as a natural outcome of overall upgrading of the cluster, ie, once a cluster upgrades, conditions for labour will automatically improve. Kaplinsky and Morris\* do refer to the scope of value chain analyses to capture income distribution between various actors within a node, but do not suggest explicitly how governance analyses can unravel the processes determining distribution within the cluster.

Though governance is indeed a useful category, its use within a new institutional context has led to it primarily being deployed to understand the sources of competitiveness with little to offer by way of helping us understand the conditions that foster one kind of competitiveness over the other. Importantly, it does not shed light on the relationship between upgrading in global value chains and labour market changes in that node. What are the links between value chain governance and national level governance frameworks for labour? Under what conditions do governance aimed at upgrading within a global value chain foster better condition of work and employment for labour? By empirically exploring this relationship in a cluster that has witnessed upgrading within a global value chain, I hope to highlight the limits of such a reading of governance in industrial clusters particularly with regard to labour outcomes. Towards this, I focus on labour market changes in Tiruppur, a dynamic knitwear cluster in southern India, embedded in the global apparel value chain for over two decades.

The study is based essentially on primary data collected through fieldwork. Fieldwork consisted of two phases. One phase is drawn to a considerable extent from fieldwork undertaken for my doctoral dissertation (Vijayabaskar 2001). Fieldwork involved detailed firm level case studies, interviews with employees and key informants in both clusters. A typology of firms was developed and case firms are chosen from each type. While over 80 firms are studied, 100 workers spread across the various firm types were surveyed. Though the firm case studies in Tiruppur were mostly carried out in the late 1990s and 2000,

information obtained has been updated with several visits since then and interviews with key informants. The second phase of fieldwork was conducted during the period mid 2008-mid 2009. Here again, information was gathered through detailed interviews from nearly 50 firms occupying different positions in the apparel value chain and within the industrial cluster. While this is used to understand the nature of upgrading and governance by lead firms in the value chain, the changes to labour markets are understood from the worker surveys.

### **III Cluster Promotion in India and the Exceptionalism of Tiruppur**

Since the early 1990s, the Indian state has sought to reshape the trajectory of capital accumulation with a greater role for market incentives on the one hand and a greater reliance on the global market for its inputs and outputs. It is believed that reduction in barriers to entry, internal and external, would foster greater competition, forcing firms to make their production more efficient. Simultaneously, concern and protection of the small-scale sector which was earlier seen to be essential merely for employment generation has been transformed into an optimistic belief that small firm clusters with adequate support can be made competitive. While several sectors reserved for the small scale sector including the garment sector has been de-reserved during this period, new initiatives seeking to provide supportive services and inputs for the clustered small enterprises have been launched.

For instance, a key agenda of the National Commission for Enterprises in the Unorganised Sector constituted in 2004 is to identify means to improve the ability of unorganised sector enterprises to compete and also improve employment and work conditions in the Indian informal economy. Cluster promotion (growth pole development) has been one of the recommendations of the commission in this regard. In addition, several initiatives supported by multilateral agencies like UNIDO are on to create conditions for dynamic growth of small firm clusters. However, in terms of actual performance very few clusters have exhibited the kind of dynamism anticipated by policies. The knitwear cluster in Tiruppur is one of the most successful clusters in the export front especially since the emphasis on outward orientation in Indian policy making. In this section, we highlight the growth performance and nature of product market upgrading in the Tiruppur knitwear cluster. The export success of the Tiruppur knitwear cluster is well documented. Starting out as a centre for production of innerwear for the domestic market, its entry into the global apparel value chain and subsequent growth has made it a 'successful' model for emulation. With an export of Rs 11,000 crores in 2007-08, it is one of the largest centre of foreign exchange earnings in the country (Tables 1 and 2 for Export Performance).

#### **Table 1**

### Direct Exports and Export Share of Tiruppur

Year	Value (Rs. crore)	Quantity(Lakh Pieces)	Tiruppur's share (in value terms)
1985	18.6	172.09	na
1990	289.94	888.73	8
1995	1591.84	2171	11.06
2000	3581	4243	13.85
2002	3382	3555	15.79
2004	4468.75	4114	na

Source: Note provided by Apparel Export Promotion Council (AEPC), Tiruppur (2003), <http://tiruppur.tn.nic.in/textile.html>

Knitwear production in Tiruppur is undertaken by over 5000 firms employing anywhere between three hundred to four hundred thousand workers, characterised by high inter-firm division of labour, a hierarchy of firms, with few lead firms directly linked to buyers in the world market (Cawthorne 1995; Swaminathan and Jeyaranjan 1997; 1999; Vijayabaskar 2001). The growth of the cluster and its production for the global market has been accompanied by some key elements of upgrading. Industry experts classify the global market for clothing into the following broad market segments:

- a) The "use and throw" or basics segment
- b) The "fashion basics or casual wear" segment
- c) The "fashion or designer wear" segment

The first segment is the most standardised and caters to the low end of the market. It is also the largest segment, accounting for 45 per cent of total global output. Designs are standard and given its least susceptibility to fashion changes has the longest shelf life. The other two segments comprise what can be termed as representative of contemporary trends in markets. The fashion segment, accounting for 25-28 per cent is characterised by fast changing fashions and high quality, comprises the premium segment. Cycle times have declined since the 1990s and the average successful clothing trend lasted only 6-12 weeks in 1999. By 2008-09, several high end retailers like Inditex SA (which owns the popular brand ZARA) have reduced fashion cycles to less than a month and simultaneously launched a large number of styles over the year.<sup>4</sup>

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<sup>4</sup> [http://www.3isite.com/articles/ImagesFashion\\_Zara\\_Part\\_I.pdf](http://www.3isite.com/articles/ImagesFashion_Zara_Part_I.pdf)

The fashion basics segment, accounting for the remaining 25-22 per cent is the lower-end fashion segment marked by designs that are more complex compared to the mass segments, but less subject to fashion trends. The shelf life is longer than that for the fashion segment, but much lower compared to basics garments. According to the case firm respondents, Tiruppur had catered exclusively to the first segment during the 1980s, with basic T-shirts constituting the bulk of output. The products, were highly standardised, albeit, demanding greater quality control compared to production for the domestic market. Since the early 1990s, there has been a steady movement into the fashion basics segment. Orders requiring complicated printing, better dyeing, embroidery, etc. for T-shirts have grown considerably. The variety of fabric required has also grown. Also, apart from men's T-shirts, ladieswear, children's wear and sportswear constitute an increasingly greater proportion of the output basket. Till the end of the multi-fibre agreement in 2005, 60 to 70 per cent of Tiruppur's output would fall under the casual wear category and the rest would be "use and throw" garments (interview with Karthikeyan, partner, leading export firm, 19, December, 2003). Respondents state that this is a segment where Tiruppur has an edge as they cater to low volumes and design-intensive markets more cost-effectively compared to its competitors like China and Bangladesh. Apart from increase in the number of tasks required and accompanying skills, the rise of casual wear production also has led to wide variation in the quantity of different orders. Also the growing variety in the number of tasks required per garment has been met by rise of specialist firms in these new processes.

The shift has also been accompanied by higher value realised per garment. From roughly around 1 dollar per piece in the 1980s, it has moved to an average of 2 dollars per piece since the early 1990s. Unit value data at the cluster level is unfortunately available only till 2004 and as table \* shows that there has been a further increase to about 2.4 USD per piece. The value in rupee terms too shows that there has been a steady increase since 2000, a period when the rupee has remained firm against the dollar. Though we do not have the average unit value at the cluster level for latter years, information from individual firms reveal more developments on this front. Ten export firms report an average unit value of about 4 USD in the last 3-4 years. This average however conceals variations in the extent and nature of product upgrading and diversification within Tiruppur. On the one hand, there has been a movement to mass market with de-reservation of garments sector. A few established export firms have moved into mass production based on the reputation they have built with buyers as suppliers of semi-fashion wear. Dedicated lines and even factories have been established to cater to the mass market for specific buyers. In this case, however, diversification does not imply greater value realisation. In many case firms we find that the value realised is less than the cluster level average of two dollars per piece. However firms have also moved into much



higher value adding items within the fashions segment. At least 15 export firms reported undertaking orders at the rate of over 10 dollars per piece. Use of high quality cotton fabric, including organic cotton or bamboo based fabric and other expensive fabrics are reported by several leading export firms. Given the seasonality in demand for cottonwear in its major markets EU and USA, production in Tiruppur is subject to high seasonality. Of late, some of the bigger firms have tried with moderate success, to offset such seasonality by diversifying into other segments like woollen wear, woven, synthetic, etc. There were even efforts to launch a common brand which however was not successful. A few firms have also set up in-house design divisions and there is a recent initiative to create a cluster level training school in design.

This product upgrading, as we shall see in the next section, has been accompanied by improvements in processes as well. Of course, given the simultaneity of production for different segments, these technologies are used in conjunction with previous ones so as to cater to different market segments. The availability of a range of technologies is another key source of flexibility. The movement to women's and children's wear also imply that the designs are subject to rapid changes. Given such features, workers can be expected to develop multiple skills capable of undertaking various operations as and when specific orders require. Apart from increase in the complexity of designs, another feature of the product market that requires 'active' labour is the demands of strict quality control. The growth in quality control requirements once again, is in conjunction with movement to a 'high road' as it requires cooperation from labour and subcontractors to ensure such output. That such changes can bring about better working conditions of labour has been noted by Zeitlin and Totterdill (1989: 176) in their examination of the UK clothing industry.

*“As production runs become shorter and style changes more frequent...even the larger firms have been forced to encourage their machinists to become proficient at a wider range of sewing operations to avoid costly bottlenecks and line imbalances. Broader initial training and continuous retraining, and higher basic wages for more versatile operators are being used by larger clothing companies in their efforts to shorten the learning curve and reduce the cost penalty associated with frequent style changes.”*

Before moving to examine the implications of this upgrading process on the labour market in Tiruppur, in the next section, I map the some of the key institutions and mechanisms of governance of the Tiruppur cluster.

#### **IV Dimensions of Cluster and Value Chain Governance of Knitwear Production in Tiruppur**

Tiruppur's initial foray into the world market owes much less to any strategic government intent at the level of the cluster. Its entry was facilitated by its growth as a major producer of knitwear for the domestic market, which in turn was possible on account of its nearness to cotton growing regions and easy access to raw materials, relatively low wage costs and a specialisation in cotton garments. The lower wage costs prevailing in the region is also partly due to its location in a semi-arid region with little prospects for agricultural employment. Another important but accidental outcome that has stood Tiruppur in good stead has been the reservation of garment production in the small-scale sector by the government. This has led to the proliferation of a dense layer of subcontracting networks to remain 'small' which in turn facilitates the cluster to derive scale and scope economies.

That the subsequent upgrading has been enabled in Tiruppur considerably by strong inter-firm networking is well-documented (Cawthorne, 1995; Swaminathan and Jeyaranjan, 1994 & 1997). Studies have also highlighted the importance of a multi-skilled workforce to the success of Tiruppur (Swaminathan and Jeyaranjan, 1994 & 1997). The cluster contains all the elements of inter-firm networks that literature on cluster promotion highlight. A high social division of labour is cemented through kinship and ethnic ties that facilitate information flows and contracts between firms. Networking also enables lead firms within the cluster to realise scope economies and flexibility in use of process techniques. It has also enabled the rise of new firms specialising in new process techniques essential to production for a more quality conscious market. Inter-firm relations within the Tiruppur cluster therefore tend to approximate to one associated with 'active' competition.

Across the value chain, quasi-hierarchical governance prevails. Given the greater power exercised by buyers, exporters tend to be price-takers with less room for negotiation. However, given the importance of quality, buyers continuously monitor and seek to ensure adequate production standards among firms in Tiruppur. Buyers are a major source of information on availability and use of new machinery, new production methods and inputs. In the realm of worker welfare, in recent years, implementation of codes of conduct for workers has been taken up by several buyers. As a result several export firms have procured globally recognised certifications like SA 8000, WRAP and comply with other buyer specific codes (de Neve 2009). These codes seek to govern labour practices like use of child labour, excess work hours, payment of wages and ensuring safety standards of workplaces.

At the level of the cluster, the exporters' association, Tiruppur Exporters Association (TEA), has definitely aided the cluster's upgrading efforts. In addition to organising international trade fairs in Tiruppur, it collaborates with the National Institute of Fashion Technology

(NIFT), to establish a fashion and training institute in Tiruppur. It has embarked upon an ambitious plan to improve the urban infrastructure of Tiruppur, in collaboration with a state government agency and a global private firm. TEA's lobbying has led to the establishment of an inland container depot in Tiruppur. In addition, the textiles ministry has launched a cluster development programme that provides services like testing, market and process information. Training initiatives for labour at different levels too have been started both by private players and by the government. The exporters association has also demanded a hostel for migrant workers, but the high cost of land is held to be responsible for the lack of state initiative in this regard. Trade union presence has a long history in the cluster and they enter into periodic wage negotiations with the producer associations. In recent years, their bargaining power vis a vis the export firms has declined for reasons elaborated in the next section. Nevertheless, despite conducive cluster level governance institutions in place, working conditions have tended to stagnate over this period when the cluster has witnessed considerable dynamism on the product market front.

## **V Governance and Upgrading of Labour Markets**

In addition to chain level and cluster level governance of networks and actors that facilitate access to technology and markets, upgrading in a cluster also hinges upon the endowments of the labour force, their organisation and the markets in which they operate. Given the growing knowledge and design intensity of production, it maybe expected that firms need to not only have access to a skilled labour force, but also important for them to learn/adapt their skill sets to the changing market requirements. Skill requirements and modes of labour use are conditioned simultaneously by governance mechanisms in the value chain and local cluster level institutions like labour unions, state legislation as well as national and international governance mechanisms like labour laws, norms of labour use, institutions that ensure reproduction of labour force, etc. Legislative governance can fail if not adequately supported by judicial governance mechanisms. Similarly, the ability of the workforce to enable a movement up the value chain may also require elements of executive governance like provision of training for new skill acquisition, etc.<sup>5</sup> Along with flexibilisation of Tiruppur's product markets, there are definite improvements in quality of processing that straddle across the various demand segments that the cluster caters to. In this section, I would like to argue that product market upgrading has been accompanied by varied labour outcomes, across different segments of the value chain and across different segments of the labour market. Such differences are due to variations in governance both within the value chain and within the cluster. I start with mapping the labour market changes in the spinning sector.

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<sup>5</sup> Peck contends that, "Skill formation and its accompanying system of social regulation seems to be one of the decisive factors in determining whether economies take the high road or the low road" (1992:328).

*a) Spinning:*

The spinning sector has witnessed rapid upgradation in terms of technology with high levels of automation and quality improvements. This has been enabled to a considerable extent by the Technology Upgradation Fund (TUF) a scheme introduced by the central government that offered low interest loans for introducing these technologies. High levels of automation in material handling, cleaning of raw cotton, faster spinning and lower monitoring of spinning process are the changes that have taken place. These innovations in processes have led to product improvements and at present a large number of spinning mills also export cotton yarn to countries like Bangladesh and China in addition to feeding into requirements of garment production in Tiruppur. But this upgrading has happened amidst steady deterioration of working conditions.

The spinning sector has a long history of unionisation and labour mobilisation and has spun off similar mobilisations in the downstream segments of the value chain. In the past, this led to improved working conditions for labour like permanent employment, social security and a clear internal career path. Large scale closure of spinning mills since the 1980s meant retrenchment and job losses which were however compensated through reasonable settlements. The mills during that period were however hardly competitive and the range of yarn produced was bunched more at the lower end and of poor quality standards. At present, however despite the entire sector moving into production of a much wider range of cotton yarn (in terms of number of counts), conditions of work are quite different. To begin with, there has been a deskilling of jobs with automation. Workers can be deployed on the shop floor with minimum training. Further with the automation of material handling, work has become less physically demanding and this is held to have enabled the entry of women in large numbers into this segment of the value chain. The women are recruited as apprentices (under the Apprenticeship Act) but under an informal and illegal agreement that they need to work for a minimum of two to three years. The workers are promised a lump sum amount when the term comes to an end. This money is meant to help the female workers to pay for their dowry when they get married. The average age of workers recruited is about 18-19 and they come from poor households with parents struggling to marry them off due to lack of funds. This scheme termed as the 'sumangali thittam' (translated as 'bride scheme') has been labelled as a new form of bonded labour by activists and civil society organisations. Female workers who leave the factories prior to this agreed time period are not paid anything except the minimum allowance paid to them every month (Rs 1500 per month maximum) which falls short of the minimum wage mandated in spinning mills. Many are housed in dormitories close to the factories and are not allowed to leave the premises except under special

circumstances. Entrance to these hostels is barred to outsiders making it extremely difficult for unions to interact and mobilise workers. There is little scope for mobility within the firm or elsewhere and workers tend to go back to their villages after this term.

*b. Knitting and Processing:*

Knitting has been a small scale activity since it moved out of the vertically integrated firm in the period 1950s-1970s. Since then, the growing social division of labour and rising labour militancy led to the break-up of the vertically integrated firm into specialist firms with knitting carried out exclusively in small firms with a few circular knitting machines. The ability to knit a range of fabric with these machines was a highly skilled operation and the skill of the foreman was critical to the knitting labour process. Machine operators too required considerable experience as helpers before they could move onto become operators. There were occasions when skilled foremen had to be brought from Ludhiana to knit certain kinds of fabric.

At present most knitting machines have been upgraded to imported computer controlled machines that are capable of producing a variety of counts, particularly of the higher end. However, the new machines have undermined the need for skills required to use older machines. At present, once the machine is programmed to produce a particular count, there is little work for a machine operator except to monitor stoppages. Programming too can be learnt quite easily with a month's training provided the operator has secondary level education and the older constraints of finding skilled foremen and machine operators are no longer visible in the town. While this has broad based entry into this segment of production, this phenomenon of deskilling undermines the possibility of labour upgrading that quality requirements and process improvement is held to enable.

Similar tendencies are found in other processing firms as well. Dyeing, printing and embroidery rely extensively on imported numerically controlled machines unlike the older mechanically and manually operated machines. Computerised colour matching systems and compacting machines for reducing shrinkage after washing are used by several export firms. Once again, these processes have largely been warranted by changes in quality requirements with buyers insisting on the use of these machines to suppliers. Speed of processing has been another factor driving this trend. In all these segments, we observe a polarization in the labour market. While low end jobs continue to persist with low skill requirements, work of operators of computer controlled machines too have become one of mere monitoring. Programming is done by a set of skilled personnel who do not belong to the firm but to the machinery suppliers. Despite the upgrading of machinery, conditions of work continue to resemble 'the

low road' for large sections of the workforce. Primarily a preserve of migrant labour, the location of most processing units on the outskirts of the town and the need for large spaces to house these units make these units the entry point for many a migrant worker seeking a livelihood in Tiruppur. Contractors and labour brokers bring migrant labour to work in these units as workers get to live on the premises saving them the difficult and expensive prospect of finding paid accommodation in the town. This advantage however provides capital with greater leverage to exercise control over their labour. Long work hours with normal shifts lasting for 12 hours are a norm. Further the reliance on contractors also implies that the workers have little access to social security benefits that permanent and direct employment may offer.

Importantly, we observe such tendencies in all the processes that have witnessed upgrading over the last decade or so. Embroidery which has been computerized too allows for entry of unskilled helpers who go on to learn feeding the fabric and the design very quickly. Workers are again housed in accommodation provided for by the owner of the firm. Accompanying this process of deskilling and diffusion of low road employment practices, has been the emergence of a new techno-managerial labour segment drawn from a different social pool of labour to meet the changing requirements of upgraded production. New work requirements like programming, logistics coordination and maintenance of new machinery are all undertaken by this pool which is employed not so much by user firms but by either supplier firms or by specialist firms that cater not merely to the cluster but to firms spread across several clusters in the country. Given the fact that most workers employed in the Tiruppur cluster are drawn from a pool with poor formal training and schooling, few among them have any prospect of a career path that takes them into this higher end segment.

*c) CMT Processes:*

Cutting, machining and trimming (CMT) are the most labour-intensive of all the processes in garment making and least subject to automation. Further with the movement to export production particularly into relatively higher end segments of the product market, checking for quality of stitching and defects has emerged as a key operation in this part of the production process. Cutting, given the small order size lots, was a completely manual operation even in the late 1990s. Use of machines was seen as unviable as the fabric would get stretched when pressed under machines and hence prone to higher defect rates. At present, cutting is carried out at least partly on cutting machines. While for large order lots, machines are used almost exclusively, even for smaller lots, sophisticated machines are used along with use of manual cutting by highly skilled cutters. A few traditional cutting masters who possess

secondary level education have managed to progress into programming of the cutting machines while the rest continue to work at manual cutting with scissors.

The range of sewing operations required has expanded considerably with the move to the export market and particularly with the move into more sophisticated garment production. While basic garments require at most two styles of sewing like chainlock and overlock, at present garments require different sewing like flat lock, button holing and fixing, and other new kinds of sewing. Further, sewing too has witnessed the replacement of domestically produced machines with imported machines that are not only faster but also reduce oil spills on garments and faulty stitching, a common occurrence in the case of domestic machines. However, while individual styles of stitching are easy, the wide range of garments produced warrant an ability to use a range of sewing machines capable of producing a range of sewing operations even on a single garment. While there has been a development of division of labour between different kinds of sewing like overlock, flatlock and chainlock, skilled tailors who are able to use different kinds of sewing machines are in demand. While several tailors working in Tiruppur tend to specialize in working on only one kind of sewing machine like overlock, firms also require machinists who can shift from one machine to another to smoothen the production of a highly variegated set of garments. Such multi-skilled machinists are much in demand though firms tend to rely more on tailors with specific skill sets for specific machines.

d) *Labouring for Time:*

The entry into more fashion oriented segments, heightened frequency of fashion cycles and the tendency of buyers to place orders close to sale to reduce inventories places a premium on time. All firms studied report a reduction in turnaround time, ie, the time buyers provide them to complete production and ship the garment from the time of placing the order. This emphasis on lower turnaround times and the predominance of small orders in the output profile of firms pushes firms towards what can be termed as 'just-in-time' recruitment of labour. As soon as firms finalise an order from the buyer, they use labour contractors to recruit labour for that specific order. Of course, in the case of established export firms working simultaneously on a large number of orders, contractors with their labour are shifted from one order to another within the firm. Else, the workers move onto the next factory once the order is over.

The low turnaround time also implies an intensification of the work process. While this has led to automation and use of more sophisticated equipment for processing, in terms of work time, workers are forced routinely to work overtime to meet the shipment deadlines. 10-12

hours of work is seen as normal workhours so much so that we find workers reporting lack of adequate work when they have work for only 8 hours a day! Such perceptions are also influenced by the lack of adequate incomes earned during the period of employment. Almost all the 400 workers studied had more than one wage earner in their family, either after marriage or before. Other members of their households work either in the cluster in other garment firms or in their native towns or villages. Employment flexibility has been accompanied by relative stagnation in real incomes accruing to labour. Despite periodic wage agreements between trade unions and exporters' association, and consequent hikes in nominal wage rates, real wage rates have continued to stagnate since the early 1980s (Bhattacharya 2000). Even if the wages for more skilled tailors have increased in recent years, the wages of the rest of the workforce have not increased to such levels. Further, large export firms tend to recruit long distance migrant workers to work in their factories and house them in dormitories. Such workers are less 'free' and also paid less than the more mobile casual workers who work in several firms.

#### **VI Using 'Governance' to Understand Labour Market Outcomes:**

In Tiruppur, product upgrading and flexibility has been accompanied by labour market flexibility, a growing casualisation of the labour force and rise in just-in-time recruitment. Labour costs therefore vary with output, yielding substantial benefits to capital operating under uncertain demand conditions. The growth process has also led to a greater technical division of labour, with workers who were earlier capable of undertaking multiple tasks transformed into increasingly mono-skilled workers who specialise in one or fewer tasks than before. Simultaneously, there has also been a greater social division of labour with the breaking up of the earlier vertically integrated firm into smaller firms specialising in specific stages of the production process. The new process requirements too are met more by the rise of new firms rather than by additional investment within older firms. In fact, the latter process, by the spatial distance created between the carrying out of various production tasks has also aided the process of a mono-skilled workforce formation, subject to employment flexibility (Vijayabaskar 2002).

Incorporation of new sources of labour like women and migrant workers has undermined the strength of labour organisations that could earlier exert considerable influence on labour market governance. In fact, through repeated struggles throughout the 1970s and early 1980s, they could ensure a certain degree of employment and social security benefits for the employees. But since then, sourcing of labour from non-traditional sources to cater to the growing demand for labour, reliance on subcontracting, changes in product markets including



seasonality, just-in-time production and shortened turnover time have all led to the need for a casual workforce, willing to submit to long work hours. Labour organisations have not been able to counter this product market pressure adequately due to lack of constituency in the newly inducted segments of the labourforce. Importantly, the uncertainty and casual nature of employment and consequent uncertainty in incomes has pushed workers into accepting intense work norms. In a striking memorandum to the government pleading immunity from what is perceived as harassment from the labour department, the exporters association contend that they provide overtime work to labour only with the active consent of labour.<sup>6</sup> They go on to point out that workers refuse to work in their factories if they are not provided overtime work. They also point out that given the high seasonality in demand it is difficult to employ permanent labour throughout the year.

Upgrading in product markets may be a necessary condition to upgrade quality of work, but it is by no means sufficient. Labour market outcomes are determined both horizontally and vertically; i.e, both in the larger domestic economy, like skill formation, institutions of labour regulation, institutions conditioning labour supply and segmentation, construction of meanings of work, and sectorally, the global value chain, in this case (Fine 1998). Efforts to improve quality of work in low-income regions through building up competitiveness in the global market without effecting changes to the structural conditions that influence labour market outcomes are likely to fail. Literature that privileges use of ‘governance’ as an analytic construct does not account for the rise of specific forms of governance within the cluster.

In India, reregulation of the economy since the early 1990s has been inspired by a logic of governance that emphasises cost dimension of labour as opposed to labour incomes as a source of effective demand. Efforts at several levels have been undertaken to deregulate labour markets. The thrust on fiscal discipline leaves States with few options other than relying on private investment for economic growth. This has led to the rise of ‘competition states’ that vie with one another to woo investment. This competition implies granting of concessions and removal of rigidities on the supply side including what are perceived as labour market rigidities. Under such a regime of accumulation, it is difficult to envisage better working conditions irrespective of upgrading in product markets. It is in this context that analyses based on a new institutionalist framing of ‘governance’ tend to be limiting. In

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<sup>6</sup> “Considering the nature of Tirupur Export business, the Government may give exemption liberally to Tirupur garment units for providing overtime to workers since workers are interested. We have also taken up the issue with the Central Government for 60 hours work per week.”, *TEA laments on measures of department of labour*, downloaded from [http://www.fibre2fashion.com/news/association-news/tea/newsdetails.aspx?news\\_id=58162&page=2](http://www.fibre2fashion.com/news/association-news/tea/newsdetails.aspx?news_id=58162&page=2)

this paper, I have sought to provide empirical bases for this argument from a study of a 'successful' export cluster in India with different labour market outcomes.

A more fruitful mode of deploying governance to understand labour market structuring would be to develop it into a more inclusive construct as suggested by Lewis et.al (2002). Lewis et.al (2002) identify three streams of literature that use governance to focus on three different though overlapping spheres; the new institutionalist stream focussing on the enterprise, the spatial embeddedness school with the 'local, territorial' as its arena and the regulationist school focussing on mechanisms that lend stability to an inherently unstable process of capital accumulation. While each of them provide vantage points to study specific economic processes, both in terms of spatial scales and privileging of the causal factors, a triangulation of the three modes would be more appropriate, especially to understand labour market outcomes or to devise strategies to improve the quality of work. In the Indian context, Harriss-White has shown how the social structure of accumulation in clusters tends to retard them from competing on 'modern lines'. In this regard, the call by Rammohan and Sundaresan (2003) to 'socially embed value chains' is quite relevant. Else, efforts at upgrading in product markets can easily be tied to a neo-liberal mode of governance with negative implications for labour.

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