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The Indian Labour Market: A Fallacy, Two Looming Crises and a Silent Tragedy

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Analyses of the Indian labour market have been characterized by the lack of recognition of one major fallacy or myth, two looming crises, and a silent tragedy resulting from unrealized expectations. The fallacy is that 12 mn join the Indian labour force every year, looking for work. The first of the two looming crisis is that millions need and wish to agriculture behind in search of non-agricultural work, but at least since 2011-12 they are not finding enough work to pull them away from agriculture. The second looming crisis is that youth are joining the age group of 14+ in growing numbers, each year with higher and higher levels of education, and are not finding non-agricultural work – despite their aspiration being only for such work. The final concern, which is simmering rather than reached the ‘ready-to-boil-over’ stage, is the sub-group of the second looming crisis of youth who are getting better educated, is for girls who have reached gender parity in secondary education, and hence aspire for non-agricultural work. All three categories of workers have plenty among them who are disheartened workers, for whom there are too few non-agricultural opportunities.

This paper addresses each of these phenomena. These are far and away the most disturbing trends in the Indian labour market for now and into the foreseeable future. The paper is organized as follows. Section 1 discusses the myth that 12 mn young people join the labour force every year, looking for work. It directly addresses the question: can India realize its demographic dividend, if such a large number have been joining the labour force. Section 2 discusses the first of the looming crises: that of growing rural deprivation, farmer distress and their need for escape to non-agricultural jobs, especially in construction. These are poorly educated landless and small and marginal farmers, for whom farming is increasingly less and less an adequate means of livelihood. Their main source of hope is growing construction work – but is that growing?

Section 3 discusses the problem of joblessness facing the growing number of youth, first time learners in their families, who are all reaching secondary level. Section 4 then examines the following tragedy: India is getting rapidly to near universal secondary school enrolment for 15-16 girls (not just for boys). These girls do not wish to work in agriculture nor in home-based manufacturing work (such as incense stick or bidi

rolling). Their aspiration would be for non-agricultural work in a nearby town, preferably in the services. Is there any hope for them?

Section 5 finally discusses briefly six steps that are needed for job creation to happen, both in the private as well as the public sector. It also makes the case for initiating a social insurance programme for poor unorganized sector workers financed by general tax revenues, to improve the quality of employment.

1. The Fallacy: are 12 million really entering the labour force every year?

How many young people are looking for jobs in India in any given year? This question has exercised policy makers for many years. It has acquired greater urgency as recent data from multiple sources indicated that job growth is lower than entrants to the labour force (Mehrotra et al, 2014; CMIE data since early 2016). The question of how many enter the labour force is relevant because India's demographic dividend can only be realised if those joining the labour force get non-agricultural jobs (since agriculture already has surplus labour).

Since the middle of the last decade there seems to be a belief that has gained widespread acceptance among the intelligentsia, that just like during the first half of the decade (1999-2000 to 2004-5, both of which were years when National Sample Survey employment and unemployment rounds were undertaken) when the labour force grew by 12 million (henceforth mn) per annum (henceforth pa), we have continued to add 12 mn pa to the labour force. That is why, through sheer repetition by policy makers, journalists and academics alike, the belief has taken hold that one mn are joining the labour force every month, and hence they must be provided work. However the fact is that between 2004-5 and 2011-12 only 2 mn pa were joining the labour force and ever since 2011-12 the number has only increase to 2.5 mn pa upto 2015-16.¹

There are several implications of this widespread illusion about 12 mn pa:

1. Numbers to be skilled: 500mn was touted in the National Skills Policy 2009 to be trained over 2012 to 2022, and then 400 mn to be skilled between 2015 to 2022 (according to the National Skills Policy 2015). Neither

¹ Of course, CMIE data and its CEO, Mahesh Vyas (2018) note that there 38 mn in March 2016 who were willing and looking for work, but unemployed. In addition, he argues that an additional 40 mn were not looking for work but were willing to work, so they can be called the 'marginal unemployed.' This estimate is based on surveys that CMIE runs on a sample of 168 000 households annually (since Jan 2016).

correspond to reality (see Mehrotra, 2014).

2. Any jobs are good (regardless of sector or quality) e.g. including in agriculture, when structural transformation in a rapidly growing economy should really be accompanied by people moving out of agriculture into non-agricultural jobs.
3. Not recognizing or focusing on what is really happening in the economy and its labour market: the three demographics looking for jobs are very different from each other – first, older agricultural workers who are mostly uneducated; second, youth better educated; and third, better educated girls (who will not work in agriculture, nor do homebased work)

We are in a special window of opportunity. For 7 years from 2004-5 to 2011-12 the young entrants to the labour force have been only 2 mn pa, but that is only because they had entered education and remained there until they became of working age. That number has actually already begun to increase since 2011-12 to 2.5 mn, which is smaller than expected only because jobs have not been growing outside agriculture. In reality though it should have been greater.

India's labour force growth is relatively small between 2011-12 and 2015-16, as demonstrated by Labour Bureau's annual survey. The labour force only grew 10 mn over those four years.

However the youthful labour force (ages 15 and 29) saw a very sharp increase of 40 mn from 147 to 187 mn over those four years. Thus all increase in the labour force is coming from young people leaving school and joining the labour force. In fact the older part of the labour force (>29 year olds) declined by 30 mn while the youthful part increased by 40 mn – since the overall increase in the LF is only 10 mn workers (Mehrotra and Parida, forthcoming).

The fact that we created 7.5 mn new non-agricultural jobs per annum over 2000-2012 shows that if GDP growth really revives, then we can grow non-agricultural jobs. BUT current GDP growth rate (of over 7% pa) has an air of unreality surrounding it, despite the fact that India maybe the fastest growing large economy in the world. There are several reasons for this air of unreality. Exports fell in absolute terms between the peak in 2007-8, but because oil prices fell even further, the difference between exports and imports increased significantly. This difference showed up in higher GDP, even though the GDP growth rate was lower than that achieved between 2003-4 and 2014-14 (i.e. 7.9% pa on a base year of 2004-5 at factor cost), as against 7.3% pa (on market prices

on a base year of 2011-12).

Secondly, GDP growth seems high for another reason: as input costs fell because international oil prices fell (oil is an input into many products, directly or indirectly), but product prices did not fall, private profit rates still remain constant or rose. This difference between input costs and company revenues profits showed up as profits, which were reflected in higher GDP. Thirdly, Government revenues increased as oil prices fell (because the government's subsidy bill fell). So government consumption rose, because government was making a windfall gain from the fortuitous fall in international oil prices.

While India may indeed may have become the fastest growing large economy of the world, India's open unemployment rate, according to government of India's own Labour Bureau data (the Annual Survey which we have used for this analysis has a sample size larger than the NSS Employment-Unemployment Round) open unemployment rate rose from 2% to 3.4%, between 2011-12 to 2015-16. That is hardly surprising since the real side of the economy was showing clear signs of slowing: credit offtake was falling, investment to GDP fell from the peak of 38% of GDP in FY2008 to 29% of GDP at best in FY2018; capacity utilization of plants fell to 70% on average; and the plant load factor in electricity firms fell to its lowest level in decades to 60%.

Agriculture: jobs falling, but not fast enough

Between independence in 1947 and 2004-5 the share of the workforce employed in agriculture was falling slowly, while the absolute numbers in agriculture continued to increase, demonstrating that structural transformation in the economy had been slow.

The share of the workforce in *agriculture* has been falling steadily (from 60% in 1999-2000 to 49% in 2011-12)), but the fall slowed sharply after 2011-12, when the pace of non-agricultural job growth slowed (along with GDP growth). In fact, never before in India's post-independence history had the absolute number of workers in agriculture fallen until 2004-5. Slow structural transformation in employment in India is demonstrated by the absolute numbers rising in agriculture between 1950 and 2004-5. Between 2004-5 and 2011-12 the numbers in agriculture fell sharply by 37 mn (or over 5 mn pa).

However, there has been a sharp slowdown *since* 2012 in the numbers leaving

agriculture compared to 2004/5 – 2011/12, as non-agricultural jobs grew slowly since 2011-12. There was a minor decrease in employment in agriculture from 230 to 225 mn between 2011-12 and 2015-16. By contrast the fall in numbers in agriculture between 2004-5 and 2011-12 had been 37 mn because non-agricultural jobs grew at the rate of 7.5 mn per annum (Mehrotra and Parida, forthcoming).

However, more worrying fact is that while the number of youth in agriculture fell between 2004-05 and 2011-12 (from 87 to 61 mn), after 2011-12 there has been a significant *increase of youth in agriculture*. Between 2011-12 and 2015-16 there was a 24 mn increase (from 61 to 85 mn) of youth in agriculture; the share of 15-29 year old workers who were employed in agriculture rose from 44% to 47% - a retrogressive development since education levels have risen and the aspiration of such educated youth is for urban, non-agricultural jobs.

Manufacturing: a serious crisis

How slow job growth has been since 2011/12 is demonstrated by the fact that the *manufacturing* workforce (organized plus unorganized) has declined overall and for youth as well. It appears that as GDP growth slowed after 2011-12, youth – who had benefitted significantly from jobs in manufacturing – have suffered disproportionately after 2011-12 due to the manufacturing slowdown.

The share of all youth who had manufacturing jobs in 2015-16 is much lower than in 2011-12. Of all the youth employed, their share in manufacturing had risen between 2004-5 and 2011-12 from 14.5 to 16%. That share dropped precipitously to 10.8% (just as the share of all employment in manufacturing fell between 2011-12 and 2015-16). The absolute number of youth in manufacturing fell from 22.2 mn to 19.5 mn over the most recent period.

The period between 2010 and 2015 saw a remarkable increase in secondary school enrolment in India, from 58% to 85% for the relevant age cohort. **In other words, just as more and more youth were getting better education, fewer were being able to find employment in manufacturing.** In fact, manufacturing, far from being an absorber of surplus labour, has in fact been shedding labour since 2011-12. This is consistent with the slow growth rate of manufacturing in the last 5 years. Not surprising also that youth were left with no choice but to remain in agriculture after 2011-12.

Services – a dim silver lining

What is clear in fact is that the only sector of the economy that has seen a significant increase in absorption of surplus labour, especially of the young joining the labour force, is *services*, in which employment has jumped from 36 mn in 2011-12 to nearly 52 mn in 2015-16 (16 mn) for youth and for all labour from 127 to 141 mn (14 mn). Services employment grew significantly between 2004-5 and 2011-12 but also between 2011-12 and 2015-16 (Mehrotra and Parida, forthcoming).

While service sector employment across the board has increased it is also clear that the traditional services (wholesale trade, retail trade) have been growing rather slowly in employment terms. It is a welcome development that it is modern services that have shown the greatest dynamism over the entire period from 2004-5 to 2015-16. These modern service sub-sectors are sale/maintenance of motor vehicles, hotels and restaurants, air transport, posts and telecommunications, financial intermediation, insurance and pension funding, computers and related activities, and finally research and development. In addition, education and health have also seen a significant increase – education much more than health – though almost all of it in the private sector (not public health or public education). This is consistent with the fact that the size of the Indian state (relative to GDP) has not grown at all in 25 years – quite unlike the growth experience of industrialized countries at an earlier stage of development.

2. The first looming crisis: Agricultural distress, but the escape to construction jobs grinding to a halt

There are two demographic groups who did reasonably well in terms of labour market outcomes both in terms of job growth as well as wage growth between 2004-5 and 2011-12 (Mehrotra et al, 2014). The first consists of those who wish to leave agriculture, who's number has grown enormously since the middle of the last decade, and will only continue to grow on account of distress in agriculture. The second group consists of those youth who are acquiring greater and greater education, and whose aspirations therefore are quite different from that of the first demographic. The first group has much lower levels of education and therefore can only be absorbed in certain kinds of work. In any case, both are aspirants to non-agricultural work. But it should also be noted that educated youth are growing in agriculture now and are increasingly protesting around jobs (like the Jats in Haryana, Patels in Gujarat, and Kapus in Andhra, all restive and seeking reservation in government jobs!).

Let us examine the first group: the landless and small/marginal farmers (SMFs) in rural areas. Farm size on average across the country has been dropping since early 1970s from 2.25 hectare on average, to 1.25 ha on average in 2010. It has no doubt fallen further since then and will continue to fall. Incomes will fall as a result, hastening the exodus from agriculture. So far largely the landless have exiting, along with some SMFs., Eventually SMFs will outnumber landless, as landless numbers will have been exhausted. The phenomenon of farmers agitating on urban streets in 2017 and 2018 is only the tip of the iceberg of the agrarian distress!

Does the economy have the capacity to create non agricultural jobs for both groups whose numbers will grow over the next decade until 2030? So while the economy may have not needed to create 12 million jobs per annum over the last decade, from this point onwards the numbers will indeed grow significantly, rising to 12 million per annum or so (perhaps even more) until 2030.

Landlessness and dependence on manual casual labour for a livelihood are key deprivations facing rural families, the Socio-economic (and Caste) Census (SECC) informed us. This makes them far more vulnerable to impoverishment.

The rural census (or SECC) mapped deprivation on seven indicators — households with a kucchha house; without adult member in working age; headed by a woman and without an adult male in working age; with disabled member and without able-bodied adult; of SC/STs; without literate adults over 25 years; and landless engaged in manual labour. **The more the number of parameters on which a household is deprived, the worse its extent of poverty.** Nearly 30% have two deprivations, 13% have three, though thankfully, only 0.01 % suffer from all seven handicaps.

While 48.5 % of all rural households suffer from at least one deprivation indicator, 'landless households engaged in manual labour' are more vulnerable. The number of landless agricultural workers in India as per Census 2001 was 106.7 mn and as per Census 2011 it was 144.3mn. Assuming that each such household has five members, that makes at least 500 mn (possibly 700mn) of the nearly 850-900 mn rural population. This number is almost certainly an underestimate of vulnerability, since 84% of all those who even hold agricultural land are small and marginal farmers.

The intersection of any of the six other SECC handicaps with 'landless labour' makes it more acute. The SECC also informs us that 59 % of households with kuchha houses are landless-labourers; similarly, 55 % of those with no literate adult above 25 years and 54 % each of SC/ST households and female-headed households without adult male members are also landless households. At the same time, 47 % households without an adult member in working age are landless labourers as are 45 % of those with disabled members and no able-bodied adult members.

Along with landless families, small and marginal farmers (SMFs) are getting pauperized and are more engaged in manual labour. Overall farm size has been dropping since early 1970s, down from 2.25 ha average, to 1.25 ha average in 2010, now lower, and will become smaller. For them agricultural incomes will fall, hastening the exodus from agriculture. Farmers distress has been growing, and this past year saw several states where farmers were on the streets - protesting!

However, the numbers of landless and SMFs looking for non-agricultural work is an immediate and top priority. Between 2004-5 and 2011-12 the number of cultivators in rural areas fell from 160 to 141 mn and the number of landless labour from 85 to 69 mn (according to NSS), both because they found non-agri work.

The real NDP of construction sector had only increased at the annual rate of 3.94% between 1970-71 and 1993-94. During 1993-94 to 2004-05 and 2004-05 to 2011-12, the growth rate in construction sector output accelerated to 7.92% and 11.5%, respectively. Consequently, the share of construction sector in rural output increased from 3.5 % in 1970-71 to 10.5 % in 2011-12. Employment in construction sector increased 13 times during the past four decades, leading to its share rising in rural employment from 1.4 % in 1972-73 to 10.7 % in 2011-12. This sector absorbed 74 % of the new jobs created in non-farm sectors in rural areas between 2004-05 and 2011-12. These trends indicate that rural areas witnessed a construction boom after 2004-05. Further, growth in employment in construction sector was higher than output growth during both the periods under consideration (Chand, 2017). One reason for the much higher growth in rural workers in construction over manufacturing or services sectors is fewer requirements of skills and education in construction.

Construction employment grew at a remarkable rate from 1999-2000 onwards. It employed only 17 million in that year. That number jumped to 26 mn by 2004-5. However, what happened after that was totally unprecedented. It grew to 51 mn by

2011-12, a doubling in 7 years (or a tripling in 12 years from the turn of the millennium).

This was made possible by the sustained growth in investment in infrastructure, especially over the 11th Five Year Plan period (2007-12) of \$100bn per annum, two thirds of which was public and the remainder was private. In addition, there was a boom in real estate (residential and commercial) throughout the country. However, private investment is now much lower than earlier.

Construction is the main activity absorbing poorly educated rural labour in rural and urban areas. These workers are characterised, as noted above, by very low levels of education. We have estimated from NSS and Labour Bureau data, that the absolute numbers of those in construction who were illiterate was 11 mn in 2004-5, but rose to 19 mn in 2011-12.

Construction jobs were growing so fast between 2004-5 and 2011-2 that the share of construction in total jobs for 15-29 year olds in the workforce doubled from 7.5 to 14%. Since then Construction job growth has slowed, such that the share of construction in total youth employment fell to 13.3%.

Construction jobs are growing more slowly since 2011-12, as public investment fell, and with the rising non-performing assets of banks, private investment fell as well. The result: fewer workers have been leaving agriculture since 2011-12. From the 5 mn pa leaving agriculture between 2004-5 to 2011-12 the number is down to just over 1 mn pa between 2011-12 to 2015-16.

This is hurting the landless labour and small-marginal farmers most, since their households had benefitted most from the tightening of the labour market that had ensued in rural and urban areas due to rising construction jobs. Rural demand in particular had risen, raising consumer demand for simple manufactured goods, especially in the unorganized manufacturing sector, raising employment in those sectors (especially in rural areas).

The Union government has sustained rural development expenditure for the last two years, especially for rural roads (Pradhan Mantri Gram Sadak Yojana) and rural housing (Pradhan Mantri Awaas Yojana). The Surface Transport ministry has also attempted to sustain public investment in infrastructure to generate construction jobs for the growing

surplus rural labour.

The budget for 2018-19 sustained this public investment effort. The announcement that the government will invest Rs 5 lakh crore towards infrastructure in 2018-19 (as opposed to Rs 4 lakh crore in 2017-18) is a welcome one. In the absence of private investment growth generally, given the twin-balance sheet problem, the fillip to public investment is essential to increasing construction job growth.

3. The second looming crisis: educated youth are joining the labour force in growing numbers but manufacturing has failed to create jobs

While non-manufacturing industry may still generate some job growth for the older, poorly educated leavers from agriculture, the situation of manufacturing is more serious. We saw above that manufacturing employment for both adults as well as youth has fallen after 2011-12. India's Budget 2018, which raised customs duties on many manufactures, finally suggests that the government is recognizing the need for a. an Industrial Policy; and b. a Trade Policy that complements the first. However, this has caused a flutter among mainstream economists/journalists who believe India is abandoning the path of economic reforms.² This is strange, to say the least.

Governments in almost all market-economy countries intervene to a greater or a smaller degree in their industries. The US government intervenes in industry through anti-trust laws, industrial standards, pollution regulations, and labor laws. However, no one would contend that the United States has an "industrial policy," but Japan did and East Asian countries do. What makes interventions by the three East Asian states (Japan, South Korea, Taiwan) and other South east Asian countries into an "industrial policy" is that their interventions were generally coordinated and viewed as a coherent whole. India, finally, might be on the same path, though it is too early to tell!

Equally, in all East Asian and South-east Asian countries, industrial policy was planned and executed as part of five year or longer-term plans, e.g. Japan, China, South Korea, Malaysia, Thailand, Indonesia or the Philippines. In fact, it was precisely because these countries had planning institutions – which went hand in hand with industrial policy – that the East/SE Asian countries managed to steer policies through good and turbulent times in

² Eg. Arvind Panagariya called it a "return to protectionism"
<https://www.telegraphindia.com/india/protectionist-rap-on-budget-208280>

the global economy, thus sustaining growth. They did not, unlike much of Latin America (LAC) or Sub-Saharan Africa (SSA), experience “lost decades” in the 1980s and 1990s.

By contrast, in LAC and SSA two full decades of potential economic growth and human development were lost, hence per capita income barely rose, just when their populations were rising. This was not the case in East/SE Asia, which grew rapidly but also transformed their structure of output/employment, ensuring major achievements in human development. The important identifier of these East/SE Asian countries were their planning structures, backed by effective industrial policy, implemented by learning bureaucracies.

However, many were sceptical that industrial policy could be practiced in other developing countries, since they have weaker bureaucracies and because the international community today is unlikely to accept interventionist industrial and trade policies. So dominant was this mode of thinking when India launched its economic reforms, that Indian policy-makers seem to have fallen prey to it as well. While the 1991 economic reforms were exactly the right response to the excessive, irrational and distortionary dirigisme prevailing until the early 1980s, it took two decades (2011) before a National Manufacturing Policy was announced (which never got to implementation stage); the National Electronics Design & Manufacturing Policy, 2012, remained confined to paper.

Over the two decades the implicit policy seems to have been: reduce high tariffs, deregulate domestic markets, end industrial licencing and market forces will ensure that manufacturing investment will thrive. However, the share of manufacturing in neither output nor employment increased since economic reforms in 1991; it was and is 16% of GDP and under 12% of employment. Manufacturing has in 25 years not been the lead sector. Services have driven growth. It is now the most oft-repeated truth about India, that we saw premature growth of services, without accompanying manufacturing growth expected under the well-established Kuznets pattern of growth. Even within services, it is worth emphasising that it is traditional services (e.g. wholesale/retail trade, transport, domestic services) that became the receptacle for absorbing surplus labour from rural areas.

However, time is more than ripe now for this policy path dependence to change. India still does not have an Industrial Policy (the fact that DIPP began consultations towards one is a good beginning, and a recognition that we don't have one). Improving ease of doing business is an integral element of such a policy, but it is only *one* element. Recognizing

that logistics is an especially difficult Indian constraint on *all* sectors, not just manufacturing, and hence creating a new unit for logistics in the Department of Industrial Policy & Promotion is a good idea; but this is also only just another element. Every government has invested in better infrastructure, which is a critical element of better logistics support.

However, Industrial Policy should have several components (on which more later). But first, recognizing that India's ballooning trade deficit with China is accounted for by exports of manufactures to India is critical to policy corrections. Also, policy should note import-intensity of Indian manufacturing production has systematically risen. This partly contributed to rising exports of manufactures, which had imported inputs. However, within manufacturing the average trade-ratio has risen sharply over 20 years. Moreover, capital-intensity of manufactures rose. Also, the capital- and skill-intensity of exports rose. The result: jobs in manufacturing fell between 2005 and 2010, and although they rose till 2012, they have since fallen in absolute terms again.

Yet Panagariya has no hesitation in sounding the alarm (on the Budget slightly raising tariffs on manufactures): "For those of us old enough to remember the India of the 1960s to the 1980s, this is *déjà vu*. Thanks to ultra-high protection and tight internal regulation, India was condemned to per capita growth of less than 2% during 1950 and 1990".³ What alarmists forget is that tariffs in 1990 stood at an average rate of 150%. Reduction from 1991 to 1998 was precipitous, to an average of 40% by 1999, and to 10% in 2007-8. Indian manufacturers unreasonably protected till 1990 were too quickly exposed to competition. A slower reduction would have enabled them to adjust to import competition and upgrade technology. All that Budget 2018 does is to raise rates to 20-25% at best in a limited number of manufactures. A more comprehensive re-examination is now necessary and alarmists must not be allowed to derail the policy direction.

We have evidence that even the limited reversal of inverted duty structures in electronics since 2014 has resulted in domestic inputs into electronics rising, even though all integrated circuits still come from China. We also know that within the last decade the Indian output of auto sector has risen sharply, making automobiles' share in manufacturing value added as high as 49% (as claimed by Society of Indian Automobile Manufacturers).

³ <https://economictimes.indiatimes.com/news/economy/policy/budget-2018-has-ensured-the-return-of-protectionism/articleshow/62876012.cms>

This sector did not suffer from an inverted duty structure.

As we noted in section 1, modern service sector jobs are indeed growing, but they cannot possibly grow fast enough to absorb those with merely secondary education. More youth will need to acquire higher levels of education. But under 5% of our workforce currently has acquired vocational education or training formally. This remains a problem in their ability to be absorbed in modern services that acquire formal skilling.

4. The silent tragedy: educated girls and women face falling labour force participation rates

There is a subgroup of the better educated youth who should be joining the labour force looking for non-agricultural work. They are the girls. However the female labour force participation rate has been declining over the last 30 years consistently (Mehrotra and Parida, 2017; Mehrotra and Sinha, 2017; Mehrotra and Sinha, forthcoming). But the difference between a decade ago and now is that girls are all getting school education, all the way upto secondary level in any case. The number of girls with reasonable levels of education have been growing rapidly over the last 5 years but the jobs have not been growing anywhere as rapidly even to absorb the males among the second demographic referred to in the previous sections. Secondary GER has grown from 58% in 2010, to 85% in 2015, with gender parity. As a result, higher secondary and tertiary enrolment has grown very sharply over the same period, with the latter increasing from 11% in 2006 to over 25% in 2016.

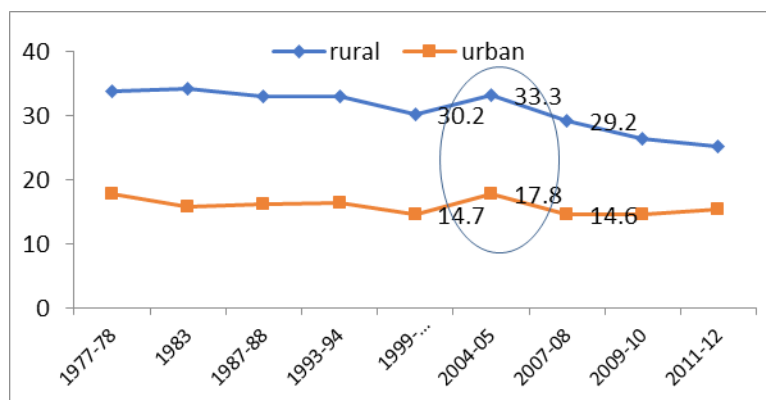
If the poorly educated older agricultural migrants plus the younger better educated youth entrants to the labour force are not being absorbed at current rates of job growth, given the current pattern of GDP growth, then the prospect of better educated girls getting absorbed in the non agricultural workforce is even bleaker. This tragedy has been unfolding for the last 5 years and looks as though will continue to unfold for much longer. This is a tragedy not only for the personal aspirations of the young girls but from that of the economy as a whole because, the addition of the women to the workforce is expected to raise the GDP per capita by 2 percentage points.

Nature and Trends of female employment in India

Women comprise nearly half of the population in India, but when it comes to participation in the labour market, under a quarter of women do: their labour force

participation rate is only 22.5 percent, as per the Employment and Unemployment Surveys (EUS) of the NSSO. As per its latest estimates, in 2011-2012, it is only 25.3 percent in rural and 15.5 percent in urban areas (see Figure 1).

Figure 1: Female Labour Force Participation Rates, Rural and Urban, 1977-1978 to 2011-2012



Source: National Sample Survey Reports various Rounds, India

In India, there has been a consistent decline in female LFPR both in rural and urban areas since the 1970s (see Figure 1). However, we focus primarily on the decline post 2004-2005, when the GDP growth rate increased significantly above the growth rate attained in India ever since the economic reforms began in 1991. Post 2005, the decline in LFPR is more pronounced, when female employment started declining even in absolute terms, particularly for rural women. During 2005-2012, rural female employment declined (see Table 1) by 23 million (taking usual principal and subsidiary status together), primarily attributable to a fall in agricultural employment in absolute numbers (by 28 million) (see Table 2). Total female employment in urban India declined during 2005-2010 (24.5 to 22.8 million). Though it increased by 4.5 million during 2010-2012, the total female work participation rate witnessed a decline even during this period.

	1999-2000	2004-2005	2009-2010	2011-2012
Rural	106.1	125.2	104.5	101.8
Urban	18.5	26.0	22.8	27.3

Source: Authors' estimates from the NSS Unit level data, various Rounds

Rural trends

Figure 1 shows that the only increase in the female LFPR since 1977 occurred over 1999-2000 to 2004-2005, which deserves an explanation. In the 60 million increase in

total jobs (male and female) during 2000-2005, 14.6 million was attributable to a rise in rural female unpaid family workers in the agricultural sector which was certainly a retrogressive development, both for the autonomy of women and for an economy undergoing structural transformation (Mehrotra et al. 2014). They joined the labour force because farming households were in distress when agricultural growth had dropped below 2 percent per annum over 1996 and 2004. Post 2005, it was these family helpers contributing to the family farm who moved out (16.1 million) (see Table 2). They basically worked as a reserve army of labour who joined the rural labour force during 1999-2000 to 2004-2005, at a time of agricultural distress, when the agricultural growth rate was very low (about 1.7 percent per annum), compared to the 3.2 percent per annum since the mid 2000s. Working on the family farm for women is actually part of their double burden and cannot be perceived as a source of either independent income or working outside the home, which are the real sources of empowerment.

Mehrotra et al. (2014) show that another retrogressive development occurred during this period (2005-10): not only women in usual working age (15-59) joining the agricultural labour force, but 1.65 million women who were over-60 years old joined the rural agricultural workforce leading to an increase of 4 percentage points in the LFPR of such women. This clearly reinforces the point that rural distress was probably compelling these women to join. The aged female workforce, shockingly, increased from 7.26 million in 2005 to 7.32 million in 2010 to 7.36 million in 2012, the reasons for which will become clearer in the next section.

Sectors	Status	1999-2000	2004-2005	2009-2010	2011-2012
Agriculture	own account workers	11.8	13.1	10.8	11.4
	Unpaid family workers	38.9	53.5	37.4	37.3
	Employers	0.4	0.6	0.5	0.3
	Wage workers (regular + casual)	39.4	37.0	34.2	27.3
	Total	90.6 (85)	104.3 (83)	83.0 (79)	76.3 (75)
Manufacturing industry		8.1 (8)	10.5 (8)	7.9 (8)	10.0 (10)
Non-manufacturing industry		1.4 (1)	2.2 (2)	5.7 (6)	7.1 (7)
Services		6.0 (6)	8.2 (7)	8.0 (8)	8.5 (8)
Total		106.1 (100)	125.2 (100)	104.5 (100)	101.8 (100)

Source: Authors' estimates from the NSS Unit level data, various Rounds

Note: 1. Figures in parentheses indicate the share of employment in each sectors over total female rural employment

2. UPSS = usual principal and subsidiary status of employment

After 2005, with various public initiatives like the national rural employment programme (Mahatma Gandhi National Rural Employment Guarantee, which started in 2006), as well as the all-weather rural roads programme to connect unconnected areas in rural India, apart from the national rural housing scheme gearing up, wage work in the construction sector in rural India increased. The huge increase in rural female employment in construction (which dominates employment in non-manufacturing industry) shows up in total rural female workforce rising from 1.8 percent in 2005 to 5.6 percent in 2010. The increase in the latter half of the decade is primarily led by construction. The share of manufacturing employment fell from 8.5 percent to 7.6 percent during the same period. Though the share of service sector employment increased, it declined marginally in absolute terms.

Post 2010, rural female manufacturing employment somewhat increased, but the quality of employment remains a major concern. The majority of them have joined as self-employed (75 percent in 2012); self-employment for women increased from 5.7 million in 2009-2010 to 7.7 million in 2011-2012 (Mehrotra and Sinha forthcoming). But these are petty home based activities as manufacturing employment primarily increased for those operating from their own dwelling (70 percent in 2012). In 2011-2012, the unpaid family workers in manufacturing accounted for 25 percent of total rural manufacturing employment (2.5 million workers).

Urban trends

What is notable is that the female LFPR in urban areas is half compared to their rural counterparts. This is a reflection of the fact that household incomes are higher in urban areas, and poverty levels lower.

	1999-2000	2004-2005	2009-2010	2011-2012
Agriculture	3.3 (18)	4.7 (18)	3.2 (14)	3.0 (11)
Manufacturing	4.5 (24)	7.4 (28)	6.4 (28)	7.8 (29)
non-manufacturing	1.0 (5)	1.1 (4)	1.2 (5)	1.4 (5)
Services	9.8 (53)	12.9 (50)	12.1 (53)	15.0 (55)
Total	18.5 (100)	26.0 (100)	22.8 (100)	27.3 (100)

Source: Authors' estimates from the NSS Unit level data, various Rounds

The majority of urban women work in the services sector (see Table 3), mainly in

education (25 percent), retail trade (16 percent), domestic workers (15 percent) and other service activities like hair dressing, laundry etc (10 percent) (Mehrotra and Sinha forthcoming). In fact, the share of services in total urban female employment increased from 50 percent in 2005 to 55 percent in 2012.

However, manufacturing is not unimportant as an employer for women in urban areas. The relatively poorly educated women in urban areas are mostly self-employed, as own-account workers and unpaid family helpers (see Table 4). Here women are engaged mainly in manufacturing of wearing apparel (32 percent) followed by textiles (27 percent) and tobacco products (14 percent). However, regular work is available for more educated women, and as Table 4 shows that has grown remarkably between 2000 and 2012, with women with regular work nearly doubling in number over that period. This is also a reflection of the growing level of education and opportunities thereof among urban women.⁴

	Manufacturing				Services			
	1999-2000	2004-2005	2009-2010	2011-2012	1999-2000	2004-2005	2009-2010	2011-2012
Self-employed								
Own account workers	1.6	3.0	2.7	3.7	2.3	2.4	2.1	2.7
Unpaid family helpers	1.3	2.1	1.5	1.7	1.4	1.9	1.3	1.7
Wage work								
Regular	1.0	1.4	1.1	1.5	5.0	7.7	7.6	9.8
Casual	0.5	0.9	1.0	0.9	1.1	0.9	1.0	0.9
Total	4.5	7.4	6.4	7.8	9.8	12.9	12.1	15.0

Source: Authors' estimates from the NSS Unit level data, various Rounds

Building on the national level data analysis, the next subsection attempts to understand the underlying reasons behind the existing low and falling rate of female labour force participation.

⁴ It may be worth dwelling on why female employment fell in absolute terms in manufacturing (and even in services slightly) between 2005 and 2010. This was part of a larger trend, which affected even men as the capital intensity of manufacturing employment rose as urban wages rose sharply, resulting in falling employment in manufacturing for both men and women. Moreover, the global economic crisis impacted jobs overall in manufacturing particularly. Services employment grew among men, but at a much slower pace than in the first half of the decade.

Underlying reasons behind low and declining female work participation in India

a. Education of over-15 year olds

Age groups	1999-2000	2004-2005	2009-2010	2011-2012
below 15	79.4	94.8	101.9	109.4
15 to 24	17.6	22.1	34.0	40.0
25-59	0.3	0.3	0.7	0.7
Total	97.3	117.3	136.5	150.2

Source: Authors' estimates from the NSS Unit level data, various Rounds

There was significant increase in enrolment in India, higher for girls both in the age-group below 15 years, as well as 15-19 years, after 2005. Since 15-years is the legal age for working, their participation in school had a dramatic impact on female LFPR. Table 5 shows that 15-24 year old girls in education rose more than two-fold, from 17.6 to 40 million over a 12 year period. There was a similar increase for 20-24 year youth: from 14.9 percent for boys and 7.6 per cent for girls in 2004-2005 to 22.5 and 12.8 percent in 2009-2010 (Planning Commission 2012).

Demand for schooling for both boys and girls has also risen with rising per capita incomes, as India experienced the fastest GDP growth ever in its history (8.4 percent per annum over 2003-2004 and 2011-2012). For the first time in India since 2004-2005 the absolute numbers of the poor fell. Earlier, the incidence of poverty had been falling, but between 2004-2005 and 2011-2012 the absolute number of the poor fell by 138 million, an achievement of staggering proportions. One factor driving female LFPR down the U-shape across countries as per capita incomes rise is increasing enrolment of girls in schools. In other words, there is a U-shaped relationship of female participation with education and household income.

The marginal effect of education on LFPR, as estimated by Klasen and Pieters (2013) for urban India for 1987 and 2009, points to another dimension. It shows that the marriage market returns to education are lower in 2009 than in 1987, with essentially flat returns up to middle school and then high returns to secondary and graduate education. Thus in 2009 marriage prospects for a woman are better with higher education level than what was in 1987. Now it is at least secondary education as compared to primary or middle school in 1989, thus underlining the importance of growing school enrolment in the decline in female LFPR in urban India during 1987 to

2009 in an indirect way.

b. Declining Child labour

Age groups	1999-2000	2004-2005	2009-2010	2011-2012
below 15	10.6 (46.7)	8.5	5.0	3.7 (41.7)
15 to 24	82.9	95.0	79.2	76.5
25-59	279.0	324.7	341.4	356.9
60 & above	27.0	30.9	34.6	37.1

Source: Authors' estimates from the NSS Unit level data, various Rounds

Note: Figures in parentheses indicate the share of girls (<15 yrs) in the total below 15 workforce.

An important reason for female LFPR falling is that child labour (i.e. among girls in the age group 6-14) is falling. The number of male and female child labourers fell consistently from 10.6 million in 1999-2000 to 3.7 million in 2011-2012 (see Table 6), wherein the share of girls also declined. This is consistent with the fact that participation in education is increasing, not just for boys, but especially for girls.

The net enrolment rate at primary level had risen to 97 percent by 2007, and there was complete gender parity at primary level in enrolment. By 2012, upper primary level (grades 6-8) gross enrolment rate had also risen to 84 percent.

c. Changing domestic responsibilities

The decline in LFPR among women is the highest in the age cohort 30-34 years followed by 35-39 years (Sinha 2014), thus indicating some reasons other than expansion of women's education to explain women's withdrawal. Domestic duties and care work, and the ideology of the marital household govern the entry to, and withdrawal of women from the labour force to a large extent. Particularly in rural areas the share of rural women engaged in domestic duties increased from 51.8 percent in 2005 to 59.7 percent in 2012, thus signifying increased burden of household activities, care work, economic activities for household consumption and non SNA/ non-economic work.

As older girls entered and remained in secondary school, the task of younger sibling care performed by the older girls hitherto now had to be performed by these adult

women. For rural females of age 15 years and above engaged in domestic duties, the primary reason to carry out such activities and not participate in the labour market is absence of any other household member to help them in household chores, child care and other domestic duties (see Table 7).

	Rural		Urban	
	2004-2005	2011-2012	2004-2005	2011-2012
Share of females engaged in domestic duties (age 15+) (%)	51.8	59.7	63.1	63.7
Reasons to carry out domestic duties (%)				
• no other member to carry out the domestic duties	55	60.1	58.2	64.1
• cannot afford hired help	7.1	8.7	7.5	8.8
• social or religious constraints	20.3	15.8	18.7	14.2
• Others	17.5	15.5	15.6	12.9
Total	100	100	100	100
Specified activities				
Maintenance of kitchen garden	15.2	23.3	3.2	7.8

Source: NSS Reports, various Rounds

With greater nuclearization of families, there is growing lack of support from other family members; thus women are constrained from joining the labour force even if they have the necessary qualification. And India's gender chore gap, the difference between the amount of housework done by women and men, is the largest of any country for which data is available (Hausmann, Tyson and Zahidi 2012), indicating the huge burden of unpaid work solely on women in India. OECD (2012) estimates reveal that in India, women spend 351.9 minutes per day on unpaid work while men spend only 51.8 minutes.⁵

The women, not counted in the labour force, nevertheless, carry out specified activities like maintenance of kitchen garden, orchards etc, work on household poultry, dairy etc, processing of primary products, collecting firewood, cattle feed etc, preparing cowdung cakes for fuel, getting water from outside, sewing and tailoring. The ecosystem is such that working women have to wedge their work in with the responsibilities at home for domestic duties and extended SNA activities.

d. Declining fertility rate

The total fertility rate (TFR) in rural India has declined significantly in the past 2 – 3

⁵ <http://stats.oecd.org/index.aspx?queryid=54757#>

decades, declining from 3.7 in 1993–1994 to 3.1 in 2000 to 2.6 in 2011–2012, which eventually would tend to be supportive to increase female participation in the labour market. And therefore, there would be a fall in the unpaid workers. But the decline would be for a different set of females. It is not really the adult women, but the young girls, who are in education at present would be joining the labour force in the near future. The GER for girls has increased at both secondary and higher secondary level. According to the Census 2011, the fertility rate is declining faster for Muslims along with improvement in sex ratio. Complementing it, the rise in the percentage of girl's participation at secondary and higher secondary level, across all communities (SC, ST, OBC, Muslims), would be contributing to the labour force in the coming 5 to 10 years.

e. Increase in household income

Female work participation in the Indian context is clearly seen as responsive to economic stimuli, better described as the “income effect”. With the rise of commercial agriculture and of household income (and fall in poverty rate), the opportunity cost of domestic activities for women increases while that of paid labour of women decreases. Hence they tend to withdraw from the labour force.

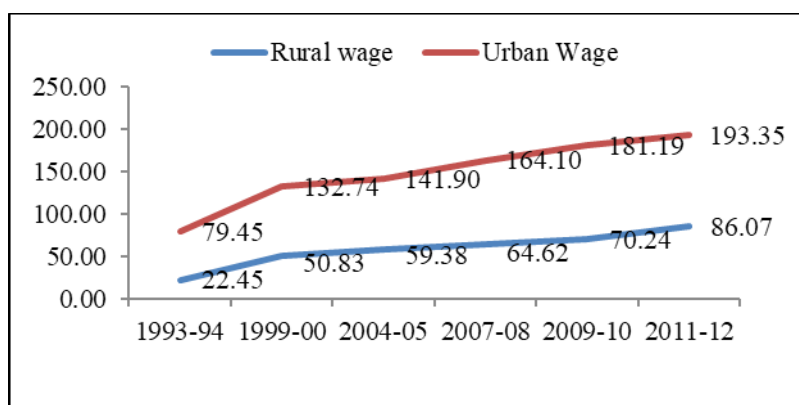
One source of rising rural household income increase has been the consistent rise in government's minimum support price (for grains procured by the government for the public distribution system) after 2000. Rural wages had been stagnating over 1999-2000 to 2004-5. However, after that they began to rise. The rise in household income has been partly driven by the availability of public works employment where women and men had been offered equal wages. Half of all workers in MGNREGA work are women and many non-workers have also joined. However, there is a caveat. Although MGNREGA work would have increased women's labour force participation slightly, there was never more than 25 person days in a year that women worked in any year. But it has certainly led to a rise in women's wages and, therefore, has contributed to enhanced household income, especially in rural areas. But it is the broader effect of MGNREGA wages and rising MSP for grain that contributed to the rise in real wages post-2005.

The second half of the decade 2000s saw a remarkable and historic shift in rural wages. The rural wages began to rise since 2006-2007 (see Figure 2), partly due to the spillover effect of MGNREGA on the open market rural wage rate, and the rising demand for low-skilled labour due to the construction boom in general, on the one hand, and of labour partly due to higher participation in education (Thomas 2012), male migration to

urban construction sites (Himanshu et al. 2013; Mehrotra et al. 2014), and male participation in MGNREGA work, all of which then again led the farmers to start using machines. Rural women who were mostly in agriculture withdrew from the labour force given the rise in household income and availability of MGNREGA work in the villages.

The combined effect of this rise in non-agricultural employment along with the secular increase in wage rates (rural and urban), was that the incidence of poverty fell sharply after 2004-2005 and the absolute numbers of the poor fell in India (Mehrotra et al. 2014). The rise in income at the bottom of the income distribution played a major role in female withdrawal from the labour force in two ways. One is the lessening of financial necessity and the other, which is very significant in the Indian context, that women staying at home are often considered to reflect a rise in a family's social status.

Figure 3: Trends of Real wage rates (at 2001-2002 prices) in Rural and Urban India, 1994-2012



Source: Authors' estimates based on NSS unit level data, various rounds

f. Mechanization in agriculture

Shortage of labour in the agricultural sector (as males moved out for higher wage construction work), rise in household income and technological change together led to mechanization in this sector. Women perform more manual work than men in agriculture, with 54 percent of women performing manual activities (weeding, harvesting etc) in cultivation in the agricultural sector as against 48 percent of men in 2011-2012. The process of mechanization reduces the demand for labour, affecting the female workforce. Now there is increasing use of seed drills, fertilizer drills for sowing & planting, power weeders for weeding, harvesters and threshers – occupations traditionally done by women. These technologies are affordable, often manufactured by locals; therefore, their use has become widespread. Men largely appropriate the control and use of technology. Farm mechanization, therefore, results in segregation with men

performing tasks involving the use of technology, replacing a number of activities earlier performed by women, particularly displacing the labour of women in subsistence and marginal households (Mallaiah 2009).

g. Decline in household level animal farming for economic purpose

Traditionally in Indian agriculture, the activities allied to agriculture have been carried out by women: raising cattle, buffaloes, goats, sheep; production of milk and other dairy products; raising of poultry; production of eggs and operation of poultry hatcheries and other animal farming were activities done mainly by the women in the family. The number of rural women engaged in these activities declined absolutely by half, from 16.5 million to 8.9 million in seven years (see Table 8). With a decline in common property resources (that results in reduction in grazing land) and growing commercialization in these sectors, it has become difficult for rural women to sustain these activities.

Table 8: Rural female employment by type of agricultural activities (in million)

	2004-2005	2011-2012
Growing of crops - cereals, rice, vegetables, fruits, beverage crops etc; plant propagation	86.36	64.78
animal production (raising cattle, buffaloes, goats, poultry etc), includes production of milk, eggs	16.52	8.99
Others (include mixed farming, support services, forestry, fishing)	1.43	2.53
Total agricultural and allied activities	104.3	76.3

Source: Authors' estimates from the NSS Unit level data, various Rounds

h. Fall in international demand for products of labour-intensive industries.

After the global economic crisis began in 2008, both output and employment in India was adversely impacted, in both tradable and non-tradable goods sector⁶. Export growth of manufactured commodities slowed in 2008-2009 and then turned negative in 2009-2010. Exports of textile and textile products, particularly yarn, fabrics, madeups. (both cotton and silk), readymade garments, leather products, gems and jewellery, handicrafts registered negative growth during 2008-2009 and 2009-2010 (we estimated from RBI

⁶ Kucera et al (2012) estimates an average 18 percent decline in employment in the non-tradable goods sector through rippled effects of trade contraction.

2014). Agro-products like cashew, oil meals, processed food experienced a negative export growth. Sectors producing such commodities have a concentration of female workers. Fall in demand for such products have an impact on the workforce, particularly the informal contract workers, piece-rated wage workers and unpaid family workers, who are largely women. Also, as in any crisis, women faced increased competition from men for scarce jobs. About 27.9 percent of women workers is estimated to have lost jobs of the total women workers in 2003–04, as a result of the crisis through the channel of trade contraction (Kucera et al, 2012).

Measurement issues

Kapsos, Silberman and Bourmpoula (2014) show that measurement imprecision appears to have played a role in changes in female participation estimates, accounting for 4.1 percentage points of the decline during 2005 to 2010. Hirway (2012) argues that a large part of the female “missing labour force” is not really missing or withdrawing, but they are in sectors that are “difficult to measure” and could not demarcate between unpaid family work and specified activities. Majority of the specified activities are not included in the Indian SNA despite the fact those are included under UN-SNA; and those considered economic among the non-marketed activities are lumped into “out of the labour force” signifying negligible participation. As female work participation rate shot up abnormally high in 2005, it is not unlikely that some of the activities performed by women were captured as contributing family work, which in the subsequent rounds were captured in domestic duties or those engaged in specified activities and therefore went “out of the labour force”; despite the fact their work did not reduce. Time Use Surveys can be used to supplement and complement the labour force surveys, to get an improved estimate and a better understanding of the female workers – paid and unpaid.

5. What the government can do about jobs?

In India’s highly segmented labour market, one can still discern at least three demographic groups that are in urgent need of jobs: a growing number of better educated youth; uneducated agricultural workers who wish to leave agricultural distress behind; and young women (who too are better educated than ever before). India is indeed the fastest growing large economy in the world; yet with investment low, credit offtake low, capacity utilization in industry low, agricultural growth low, plant load factor low, it is hardly surprising that job growth is low as well.

Although growth is relatively high (though slowing for last several quarters), it is the

pattern of growth that is the problem. Among many dimensions of this problem is the fact that in the quarter century since economic reforms began, it is not manufacturing that has been leading sector driving growth. Manufacturing should drive productivity in the whole economy. Economic services cannot, as services by definition ‘service’ the distribution of produced goods.⁷

So what can policy-makers do to revive job growth (other than invest more in infrastructure, which this government has been attempting to do especially for last 18 months or so, in both rural and urban India)?⁸

1. **Industrial and trade policy needed**

As stated earlier, not only did tariffs come down too fast in the 1990s, but what has damaged manufacturing is inverted duty structures. GoI’s Department of Industrial Policy and Promotion (DIPP) is finally preparing an industrial policy. For 20 years after economic reforms began in 1991 there was no National Manufacturing Policy until 2011, and the Policy, when it came in 2011, was not even implemented. By the time the 12th Plan (with the first mention of Industrial Policy since 1991) became public, the UPA government had gone into policy paralysis.

Department of Industrial Policy and Promotion is finally preparing a much delayed **industrial policy** document. However, it is essential that trade policy is consistent with such an industrial policy. Otherwise the two may work at cross purposes and undermine each other’s objectives. This is precisely what has happened over many years. However excessive imports have been decimating Indian manufacturing. An inverted duty structure has the following features: higher duty on intermediate goods compared to final finished goods with the latter often enjoying concessional customs duty. As a result domestic manufacturers face high tariffs caused leading to higher raw material cost at home, emanating from the unfavourable inverted duty structure. This has been pointed out by FICCI way back in 2014 for aluminium, steel, chemicals, capital goods, electronics since the last 12-15 years, which prevented many manufacturing sectors from growing since economic reforms began. This must be corrected.

The automobiles sector in India faced no inverted duty structure, and has thrived: India is one of the largest producers of vehicles of several kinds in the world now. Electronics

⁷ It should be emphasised that we not referring here to social services at all, but only to economic services – which usually tend to be tied to the rise and fall of production.

⁸ See Mehrotra and Guichard (forthcoming) for a more detailed discussion of this issue.

faced an inverted duty structure, but the Finance Minister has made changes, and slowly electronics manufacturing has grown.

The demographic group addressed by these policies will be mainly the youth (both boys and girls).

2. Special packages are needed for labour-intensive industries to create jobs

There are a number of labour intensive manufacturing sectors in India such as food processing, leather and footwear, wood manufacturers and furniture, textiles and apparel and garments. The apparel and garments sector has received a package from the Government of India roughly one year back. The other labour intensive sectors have been ignored. The nature of the package will need to be individually designed for each sector defined as quickly as possible. The demographic groups impacted positively by these policy packages are YOUTH & GIRLS, SCs & MINORITIES.

3. Cluster development to support job creation in micro small and medium enterprises (MSMEs)

Most of the unorganised sector employment is in micro, small and medium enterprises, which tend to be concentrated in specific geographic locations. There are 1100 modern industry clusters in India and an additional 5000 traditional product manufacturing clusters, like handloom, handicraft and other traditional single product group cluster. There is a cluster development programme of the Ministry of MSMEs, which is poorly funded and could be better designed as well.

But the MSME total annual budget for all programmes, including cluster development, is just over Rs 1500 cr. Spread over 5500 clusters, that is quite inadequate to result in a successful transformation in MSMEs located in clusters. An improvement in cluster development policies will help YOUTH & GIRLS to get jobs.

4. Aligning Urban Development with manufacturing clusters to create jobs

The Ministry of Urban Development (MOUD) has a program called AMRUT, aimed at improving infrastructure for small towns. Infrastructure investment by the government always creates many jobs. But the MOUD program does not take into account whether

the infrastructure investment under this program is taking place in towns which have clusters of unorganised sector economic activities. Hence an engagement between MOUDs and MSME is necessary to ensure that this is happening. It will attract more investment to industrial clusters, which is where most non-agricultural jobs are. This will help youth, and within that group, especially the girls.

5. Girls and jobs. Girls are losing out in jobs, or those with increasing education cant find them, despite having gotten higher levels of education in the last 10 years. Secondary enrolment rose in India from 58% to 85% in a matter of 5 years (2010-2015), with gender parity. Skilling close to clusters (rather than standalone vocational training providers), which is where the jobs are, is likely to be more successful. The problem with skilling programmes has been low placement after skilling is complete. The availability of jobs close to where the skilling is conducted will also enhance the demand for skilling.

6.. Public investments in health, education, police and judiciary can create many government jobs

Public investment in health sector has remained even in the last 3 years at 1.15% of GDP, despite the creation of national health policy at the beginning of 2017. The policy indicates that expenditure on health will rise to 2.5% of GDP only by 2025. Given the state of health and nutrition of the population it is critical that public expenditure on health is increased faster and not as late as 2025. In the absence of greater public expenditure the private sector in health keeps expanding which only raises the household costs on health, without necessarily improving health outcomes, because the private sector does not spend on preventive and public health measures. But the private sector prefers to set up hospitals to cure people after they have become sick rather than prevent them from becoming unhealthy in the first place. Preventive and public health have always been in all countries the responsibility of government. More government expenditure in health means more jobs in government and better health outcomes.

The government schools also have such poor quality that parents are voting with their feet by spending money on private schools, whether or not the poor parents can afford it. Not only have primary enrollment risen but secondary enrollments have risen very sharply between 2010 and 2015 from 58% to 85%. The number of teachers required specially at Secondary And Higher Secondary Level is very high, especially in Science

and Maths. Many new government jobs can be provided if more young people could be trained specially to become teacher for science and math at Secondary And Higher Secondary Level.

The same applies to the police and the judiciary. While the number of para-military forces continue to grow, state governments are .not filling even sanctioned posts in the policy and in the judiciary (at all levels there are vacancies). More police and a larger judiciary can both reduce crime as well as speed up the process of justice for the ordinary citizen. This will benefit YOUTH AND GIRLS.

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