ISSN 0973-0419

Vol. 27, No. 2, December 2020

Labour & Development

ARTICLES

V.V. Giri National Labour Institute

LABOUR & DEVELOPMENT

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STRENGTHENING WAGE POLICIES TO PROTECT INCOMES OF THE INFORMAL AND MIGRANT WORKERS IN INDIA AMIDST THE COVID-19 PANDEMIC

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The Government of India is leveraging wage policy as a part of overall fiscal policy actions to protect the income of the informal and migrant workers affected by the Covid-19 pandemic and resultant lockdown measures. Through its redistributive mechanism and MGNREGS wages as an effective fiscal stimulus, the statutory minimum wages could help alleviate the hardship faced by the informal workers and returnee migrants. However, for wage policies to act as an effective antidote, wage levels and their adequacy along with full implementation are of paramount importance. In this context, the paper argues that the level of both statutory minimum wages and MGNREGS wages are very low in India, and several implementation bottlenecks inhibit them from delivering welfare results. It limits the very effectiveness of wage policies, unless prompt actions are taken to strengthen and revamp these policy tools. This paper provides an alternative framework for setting and revising minimum wages and MGNREGS wages at an adequate level under this backdrop. This is expected to significantly strengthen the current wage policies in addressing their stated objectives of reducing poverty and inequality while supporting a human-centred economic recovery process.

Keywords: *India, Covid-19, Employment, Wage Policy, Minimum Wage, Floor Wage, MGNREGS Wage, Poverty, Inequality, Informal Worker and Migrant Worker*

1. INTRODUCTION

The Covid-19 pandemic through border control, mobility restriction and lockdown, has had a detrimental effect on economies around the world. It has also profoundly impacted employment and incomes of workers. Based on a scenario analysis, the International Labour Organisation (ILO) has estimated 495 million and 345 million full-time job losses globally during the second and third quarter of 2020, respectively (ILO, 2020a). It further states that the lower-middle-income countries are the hardest hit due to workplace closure, having experienced an estimated decline in 240 million full-time jobs in the second quarter of 2020. The reduction in working hours has caused losses in labour

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income by 10.7 per cent globally during the first three quarters of 2020 equivalent to USD 3.5 trillion (or 5.5% of global GDP) compared to the same period of 2019. Even under the assumption of a faster recovery, it has projected that the global job losses are unlikely to return to the pre-crisis level by the end of 2020 (ILO, 2020b). The informal and migrant workers, who are a disadvantaged group in the labour market, are severely hit by the crisis. As per the ILO estimate, of the 2 billion informal economy workers worldwide, almost 1.6 billion are significantly impacted by lockdown measures and working in the hardest-hit sectors having no possibility of working remotely (ILO, 2020c). The crisis is estimated to result in a decline in earnings of 60 per cent of informal workers globally. The World Bank projection suggests that the crisis will push 88 to 115 million people into extreme poverty in 2020, with the total rising to 150 million in 2021, thereby increasing the global extreme poverty rate for the first time since 1990 (World Bank, 2020).

Like other countries, the pandemic has also severely impacted the Indian economy and cast devastating effects on its economy and labour market. India had implemented one of the strictest lockdowns compared to any other countries in the world. For 2020, the IMF estimates Gross Domestic Product (GDP) growth of just 1.9 per cent for the country, the lowest rate since the 1991 balance-of-payments crisis (Walter, 2020). In line with the IMF's forecast, the first quarter (April–June) of 2020-21 estimate released by the Government shows a sharp decline in GDP by 23.9 per cent as against a 5.2 per cent increase in GDP in the corresponding quarter of 2019-20 (GOI, 2020b). This is the worst contraction of GDP in the history of the Indian economy due to the combined impact of supply disruption and demand compression. As per the released data, all the critical sectors of the economy except agriculture and allied activities witnessed contraction, with construction witnessing a drop by a whopping 50.3 per cent while the trade, hotels, transport and communication by 47 per cent and manufacturing industry saw a 39.3 per cent decline. In the second quarter (July-September) of 2020-21, the GDP contractions continued, but the extent of contractions narrowed down to 7.5 per cent from 23.9 per cent in the first quarter (GOI, 2020c).

In the context of the labour market, a rapid assessment undertaken by the ILO suggests that the number of workers vulnerable to the lockdown could reach 364 million to 429 million in India, including those in casual work, self-employment and unprotected regular jobs without access to social protection coverage (ILO, 2020d). Similarly, a study by Estupiñan and Sharma (2020) estimated that lockdowns 1.0 and 2.0[1] had put 104 million and 69.4 million informally employed workers at risk of job loss, respectively. The study also shows that formal workers' wages have been cut by 3.6 per cent, while the informal workers experienced a much sharper

[1] Lockdown 1.0 (24 March to 14 April 2020) and lockdown 2.0 (15 April to 3 May 2020) as per the government notification.

cut in wages to the tune of 22.6 per cent. As a result, workers who are informally employed in the unorganised sector suffered a wage loss amounting to ₹ 635.53 billion, which is almost close to the annual union budget allotted to Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in 2020-2021. The lockdown, which was announced on March 24, 2020, has also severely impacted the migrant workers in urban areas in general and the short-term circular migrant workers in particular (Srivastava, 2020). Conservative estimates show that at least 5 million or more migrants who lost jobs and accommodation in cities during the pandemic, returned to their villages (ILO, 2020d). However, other estimates show that more than 111 million long-term and short-term circular migrants constituting 57 per cent of the total urban workforce in 2017/18 are vulnerable and impacted severely by the lockdown in terms of job and income loss forcing them to return to their villages (Srivastava, 2020). As the pandemic has disproportionately impacted the most vulnerable and hard to reach group within the labour market, the IMF has estimated that 41 million Indians would slip into extreme poverty (surviving on $1.9 a day) and the pandemic would "exacerbate pre-existing trends" in the context of income inequality (IMF, 2020).

Immediately after the Covid-19 pandemic, governments worldwide took unprecedented actions to save lives and protect livelihoods. As an immediate measure in India, the Government announced a series of interventions to protect the workers' wages and income. On March 23 2020, the Ministry of Labour and Employment, Government of India (GOI) issued an advisory to the employers of public and private establishments to extend their coordination by not terminating their employees (particularly casual and contractual workers) or reduce their wages. It advised to provide paid leaves if necessary and consider employees on duty during the lockdown period[2]. On March 24, 2020, GOI directed all the state governments to release ex-gratia payments to 3.5 crores registered construction workers using the accumulated ₹ 52 ,000 crores cess fund in their respective Building and Other Construction Workers' Welfare Boards[3]. On March 26, 2020, the government amended the Employees' Provident Funds & Miscellaneous Provisions Act to allow 4.8 crores formal sector registered workers to withdraw up to 75 per cent of their balance in the fund or three months' wages, whichever is lower, as an emergency measure to tide over any difficulties arising during the pandemic. Apart from the above measures, on March 26 2020, the GOI also announced a stimulus package of ₹ 1.7 trillion (around 0.8 per cent of GDP) under *Pradhan Mantri Garib Kalyan Yojana* (PMGKY) to benefit farmers, women, low-income households and migrants in terms of cash transfers and in-kind support

[2] Detail advisory may be seen at: https://labour.gov.in/sites/default/files/Central_Government_Update.pdf

[3] In response to this direction, state government depending on the availability of cess funds released varied amount to the migrant workers ranging from ₹ 1000-1500 (16 states); ₹ 2000-3000 (8 states); and ₹ 4500 and above (5 states) as provided in Srivastava (2020).

(such as the provision of food grains and cooking gas)[4]. It also undertook a host of other initiatives such as mapping migrant workers and launching of workers' helpline to extend support to them (ILO, 2020e). In addition to the Central Government response, the State Governments also undertook various measures in varying degrees to benefit migrants and informal workers[5].

As the crisis prolonged, the Government announced an *Atmanirbhar Bharat Abhiyan* (ABA) or Self-Reliant India Mission package on May 17, 2020, involving 10 per cent of the GDP or equal to ₹ 20.97 lakh crores[6] to stimulate the economy out of an impending recession and to boost job creation[7]. The package involved various macroeconomic stabilization measures including expansionary fiscal policy, accommodative monetary policy, financial support to MSMEs and infrastructure enhancement fund to agricultural and allied sectors. The dominant view around the world including in India was that the lockdown impact resulting in working hour losses would lead to a more than proportional demand shock in terms of labour income losses and reduction in spending larger than those emanating from supply disruptions, hence the requirement of a larger fiscal stimulus. However, the ABA package announced by India was criticised as it is designed more to enhance productive supply-side capacity than to support demand (ILO, 2020d and Pangariya, 2020).

Under the ABA fiscal stimulus sub-component, the Government has leveraged the existing MGNREGS by allocating an additional amount of ₹40,000 crores for 2020-21, taking the full-year allocation for the scheme to over ₹100,000 crores for the first time[8]. It also introduced a new *Garib Kalyan Rojgar Abhiyaan* (GKRA) on June 20, 2020, to boost employment and livelihood opportunities for migrant workers returning to villages and similarly affected rural citizens due to lockdown measures[9]. The GKRA entailed ₹ 50,000 crores[10] worth project for building durable rural infrastructure to be implemented in a mission mode campaign in 125 days in 116 districts of six states[11].

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4 However, the package was criticized as it was poorly targeted at the urban informal workers and especially towards migrant labourers, leading many experts to recommend a universal food and income transfer to stem the hunger and extreme economic hardship (Srivastava, 2020).

5 For details see Srivastava (2020) and ILO (2020e).

6 On November 12, 2020, the Government announced Atmanirbhar Bharat 3.0, wherein the cumulative stimulus amount was enhanced to ₹ 29.87 lakh crores which is equivalent to 15 per cent of the GDP. For details see https://www.businesstoday.in/current/corporate/govt-announces-atmanirbhar-bharat-30-covid-stimulus-worth-rs-29-lakh-crore/story/421809.html

7 For detail provisions under ABA please see https://pib.gov.in/PressReleasePage.aspx?PRID=1624661

8 However, the Government didn't accede to a large number of requests to expand the scope of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to provide 200 days of job in rural areas and extending the scheme to urban areas.

9 The details of the GKRA may be seen at: https://pib.gov.in/PressReleasePage.aspx?PRID=1632861

10 On 12 November 2020, the Government further enhanced GKRA outlay by ₹ 10,000 crores in the current financial year. It further stated that ₹ 37.5 thousand crores have been spent till date from the earlier allocated amount of ₹ 50,000 crores, which is over and above the allocation for MGNREGS.

11 The six states and number of districts in them are as follows: Bihar (32 districts), Uttar Pradesh (31), Madhya Pradesh (24), Rajasthan (22), Odisha (4) and Jharkhand (3). The 116 districts in 6 states have been chosen as each of these districts have received at least 25,000 return migrants each.

The GKRA is a convergent effort between 12 different Ministries/Departments to expedite 25 public infrastructure works and works relating to augmentation of livelihood opportunities for more than six million migrants. However, it is stated that GKRA itself offers little new money and pools already allocated funds.

Mindful of the fact that wages in the public work programme are the main element, which will provide protection to the workers and help in boosting private consumption demand and in turn investment, the Government under the ABA measures also announced an increase in average MGNREGS wages by ₹15 per day (from ₹187 per day in 2019-20 to ₹202 per day in 2020-21)[12]. This can benefit five crores families and results in an additional income transfer of ₹2,000 per household[13]. Besides this, the Government also announced extending legal coverage of minimum wages to all wage earners; established a statutory national floor wage to protect the low paid workers and simplified minimum wage structure in the country (ILO, 2020e). The last set of announcements were part of the ongoing wage policy reform under the enacted Code on Wages, 2019 (hereafter referred to as wage code), which the government—linked with the ABA measures. To activate the provisions of the wage code at the earliest, the Government also notified the implementation mechanism in the form of Draft Wage Code (Central) Rules, 2020 (hereafter referred to as wage rules) on July 7, 2020. This wage rule (GOI, 2020c), apart from others, provides the mechanism for fixation, revision and frequency of adjustments of minimum wages and floor wages and hence, shall decide the level at which these rates will be initially set and the extent to which minimum wage levels are maintained to protect the erosion in the purchasing power of workers.

While the above steps in the sphere of wage policies are noteworthy, the extent to which these interventions will help protect and restore the informal and migrant workers' income is questioned. It has been established that the level of minimum wages are very low in India (Belser and Rani, 2011) and display wide inter-state divergence and disparities with poor compliance (ILO, 2018 and GOI, 2019b). Some states even set the minimum wages below the national floor-level minimum wage rate[14] of ₹ 176 per day as of 2018-19 (GOI, 2019b). Similarly, the MGNREGS wages, which are supposed to provide livelihood security to the poor and deprived households during distress are historically low compared to state agricultural minimum wages and shows wide divergence over the years.

[12] However, it is argued that this wage hike is not a new element as the government usually notifies revised MGNREGA wages with effect from 1st April of every financial year after undertaking price adjustment with respect to changes in the cost of living.

[13] This is based on the assumption of guaranteed delivery of 100 days of work to each household. In reality, MGNREGA has generated on an average 45-50 days of work per household in last few years. Hence, the amount of additional income transfer per household would be less than what is mentioned by the Government.

[14] Since, its establishment in 1996, the national floor level minimum wage have been benchmarked to the rural poverty line. The last revision to floor wage was undertaken during June 2017 and was fixed at ₹ 176 per day. Since then no revision to the floor wage have been undertaken.

The situation is further complicated because of poor compliance to the statutory minimum wages (GOI, 2019b) and the inability of the states to provide 100 days of guaranteed job under MGNREGS including delay in wage payments, rejection of wage payments and other administrative issues[15]. Suppose the statutory minimum wages and MGNREGS wages do not meet workers and their families' basic needs; in that case, these wages will have a negligible impact on the standard of living of the informal economy and migrant workers devastated by the pandemic, despite the recent measures announced by the Government. As wage levels through its redistributive channels are essential not only for providing immediate income transfer to the vulnerable informal workers and the return migrants but also for restoring aggregate demand, therefore it is of utmost importance to set the level of wages at an adequate level[16], and maintain the adequacy of the levels over time through regular adjustments and ensure full compliance.

Given this background, this paper critically examines aspects of India's wage policy with particular reference to the procedure of setting, revision and adjustment of statutory minimum wages and MGNREGS wages. Based on the examination, the paper argues that the procedure of wage fixation and adjustments in India is based on an old framework that results in the prevalence of low-level minimum wages and MGNREGS wages, thereby severely limiting the effectiveness of wage and income transfer policies in the country. The paper then presents a case for strengthening India's wage policies by providing an alternative framework for setting both statutory minimum wages and MGRNEGS wages at an adequate level using an evidence-based methodology and effective social dialogue process. In the end, the paper argues that the alternative framework of wage fixation will not only make the redistributive effect of wage policy much stronger in terms of providing livelihood security to the low paid informal and migrant workers but also in addressing poverty and inequality. This alternative and strengthened wage policy can act as an essential component of the fiscal policy tool under the ABA stimulus package to boost private consumption and restore aggregate demand, investment and promoting economic growth back to the pre-crisis levels.

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[15] A study by LibTech (2020) shows that funds tends to dry up around the end of the financial year, holding up wage payments for weeks or even months at a time. Roughly one in twenty wage payment transactions get rejected due to technical error such as incorrect account number or incorrect linking of Aadhaar with bank accounts. The same study (forward of which is written by noted economist Jean Dreze) mentions that nearly ₹ 5,000 crores of NREGA wage payments were rejected during the last five years.

[16] The concept of 'adequate' minimum wages, statutory or negotiated was propounded by the ILO centenary declaration on the future of work (ILO, 2019). As per the conceptual framework, the level of adequate minimum wages shall lie above the minimum rate of wages but the below the level of living wages.

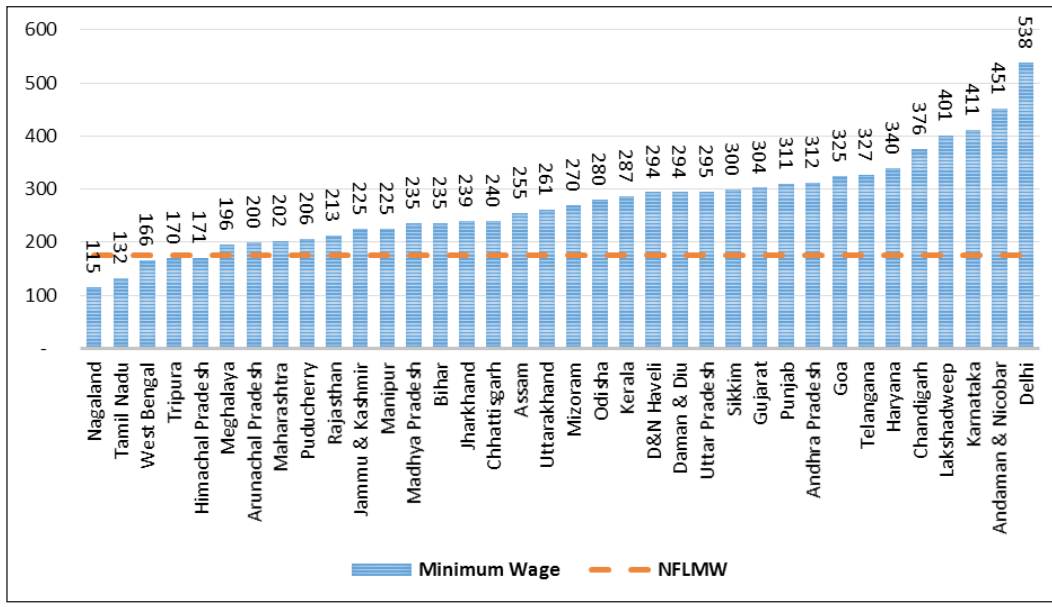
2. MINIMUM WAGE FIXATION PROCESS AND ADEQUACY OF MINIMUM WAGE LEVELS

Minimum wage is the lowest amount of payment which the employer is obliged to pay to the wage earners for the work performed during a given period. The ILO Centenary Declaration for the future of work calls for strengthening labour institutions to ensure adequate protection of workers, including an adequate minimum wage (ILO, 2019). In India, Article 43 of the Constitution provides that the State shall endeavour to secure *among other things*, work, a living wage and conditions of work ensuring a decent standard of life and full enjoyment of leisure and social and cultural opportunities. Under this backdrop, India's minimum wage system is governed by the Minimum Wages Act (MWA), 1948. The primary objective of the MWA is to protect workers against unduly low pay, especially those in the unorganised sector, which account for 87 per cent of the total employment in India.

Despite its existence for more than 72 years, the effectiveness of the MWA has been a matter of intense debate. Firstly, the MWA is not universal in its coverage as it is applicable only to 66 per cent of the wage earners who were part of the scheduled employments[17] (ILO, 2018). Secondly, the minimum rate of wages set under the Act was widely believed to be low. As shown in Figure 1, some states even set the minimum wages below the ₹ 176 per day national floor-level minimum wage rates (GOI, 2019b). Therefore, it is not surprising to note that the level of gross monthly minimum wages in India is third-lowest among the 30 Asia and Pacific countries both in PPP and dollar terms in 2019 for which data are available (ILO, 2020f). Thirdly, there are wide inter-state variations in the level of the lowest and highest minimum rate of wages much beyond the differences in cost of living and there exist systematic persistence bias in fixation of the minimum rate of wages for men and women undertaking similar works (ILO, 2018 and GOI, 2019b). Fourthly, compliance under the MWA is poor for various reasons as a result of which actual wages received by 20 per cent of regular workers and 42 per cent of casual workers were less than even the national floor-level minimum wages in 2011/12 (GOI, 2019b). Therefore, various impact studies show that the effect of minimum wage did not necessarily benefit those at the bottom of the wage distribution (Rani and Ranjbar, 2018 and Wolfson, 2019). The lack of effectiveness of the MWA was empirically assessed both in the Economic Survey (GOI, 2019b) and in the India Wage Report (ILO, 2018). These reports have attributed incomplete coverage, lack of application of uniform minimum wage fixation criteria by states, a complex system with 1,915 scheduled minimum wage rates, low awareness among workers and employers, and difficulty in enforcement in the informal sector as the primary reasons for poor compliance and ineffectiveness of wage policies in India.

[17] Scheduled employments are those employments where more than 1000 workers are engaged and it is specified in the schedules of the MWA, 1948 either by the Central or State Governments.

Figure 1
Unskilled Minimum Wages in India across States (₹ per day), 2018-19



Source: Economic Survey, 2018-19.

Given the minimum wage policy's sub-optimal outcomes, there was a long demand to reform and move towards a universal minimum wage system[18]. This sentiment was earlier echoed in the Second National Commission on Labour (SNCL) report, which had recommended to simplify and rationalise the labour laws and procedures (GOI, 2002). The latest two reports, i.e., India Wage Report (ILO, 2018) and Economic Survey, 2018-19 (GOI, 2019b), also called for strengthening the minimum wage system to protect workers and address poverty and inequality. All these developments over the years led to the enactment of the Code on Wages on August 8, 2019 by subsuming four wage-related legislation (i.e., the Minimum Wages Act, 1948; the Payment of Wages Act, 1936; the Payment of Bonus Act, 1965; and the Equal Remuneration Act, 1976).

The wage code has introduced significant reforms, which can benefit wage earners in several ways (GOI, 2019c). The applicability of the wage code has been made universal irrespective of occupation, sector and geography in India. This means that all the wage earners in an employment relationship will be entitled to a legal minimum wage and timely payment of wages within the fixed-wage period. Further, the wage code has introduced a new concept of statutory floor wage to be set by the Central Government based on a minimum standard of living. It

[18] The 44th session of ILC (2012) recommended that 'the MWA, 1948 should cover all employments and the existing restriction on its applicability only to the scheduled employments should be done away with'. See recommendations of the Conference Committee on "Minimum Wages" (Annexure 1, page 14) at: https://labour.gov.in/sites/default/files/44th_ILCL.pdf accessed on July 3, 2020.

prohibits the state governments to fix their respective minimum wage rates below the floor. This has been done to ensure that employees' wages do not fall below the minimum standards of living anywhere in the country and address the inter-state disparities in the minimum wage rate. Unlike in the earlier, MWA (1948), the wage rules have included the criteria for fixation of the minimum wage rate and the possibility of adjusting minimum wages every six months with respect to changes in the cost of living through dearness allowance (GOI, 2020). This is expected to bring uniformity in the minimum wage fixation criteria across states and their regular adjustments. Lastly, the wage code has also simplified the minimum wage structure of India. Therefore, instead of the current 1,915 different occupational wage rates, each state will have a minimum of 3 and a maximum of 12 wage rates depending on the skills or geographical region or both (Satpathy et al. 2020). The simplification of the complex system is expected to improve the degree of compliance.

The universalisation of minimum wage and establishment of statutory floor wage is expected to raise the wage levels of millions of low-paid workers, either presently not covered under the minimum wage regulation or receiving a sub-minimum level of wages. Studies show that if fully implemented, the positive social outcomes may reduce inequality and poverty, including a sharp reduction in the gender pay gap at a low fiscal cost in India (Belser and Rani, 2011). However, the extent of the effect of these redistributive outcomes will be contingent on the level at which floor and minimum wages are set and on the degree of compliance (Estupinan et al., 2020 and ILO, 2020f). Therefore, this paper also critically examines both floor and minimum wage fixation criteria and their adjustment process as introduced in the wage rules. The elements taken into account in the criteria and their adjustment process are crucial in determining the adequacy of the level at which these two wage rates are set and maintained over time.

As stated earlier, to give effect to the wage code at the earliest to benefit the wage earners and migrants during the pandemic, the Government has notified the draft wage rule soliciting comments. The wage rules provide implementation mechanisms for various wage code provisions, including fixation, revision and adjustment of the floor and minimum wages. A scrutiny of the wage rules suggests that the criteria and method of fixation, revision and adjustment of floor wages and minimum wages continues to be based on the old framework. At least from a need-based approach, the rules' criteria may not capture the realities of current household consumption expenditure patterns. If the floor and minimum wages are fixed as per the criteria given in the wage rules; their levels may not be adequate to help the wage earners meet their needs and that of their families and tide over the ongoing crisis. Therefore, fixing statutory wage levels at an adequate level is of utmost importance. In the following sections, we have discussed the issues with wage fixation criteria and adjustment process as provided in the draft rule.

As far as floor wage fixation is concerned, the wage code states that floor wage shall be determined as per worker's minimum living standard. However, the criteria to determine what constitutes minimum living standards are not laid out in the wage rules. It simply states that elements such as food, clothing, housing, and other factors as considered appropriate by the central government shall be taken into account. This raises questions about the level at which the floor wage will be initially fixed and if the levels will factor in the diverse realities across states in India. As far as the periodicity of revision and updating of floor wage is concerned, the rule states that the floor wage 'may' be revised ordinarily at an interval not exceeding five years and undertake adjustment for variations in the cost of living 'periodically'. A gap of five years for the revision of the base floor wage rate is way too long. And not mentioning the periodicity of adjustment with respect to inflation means that instead of playing a dynamic role in effecting upward revision of minimum wages across states and over time or for that matter addressing inter-state differences in minimum wages, the floor will remain redundant in practice and even unable to protect vulnerable workers from erosion in their real wages.

As in the case of floor wage where criteria's have not been laid out, in the case of minimum wages, the criteria's have been laid out in the wage rules but based on the old framework as suggested by the 15th Indian Labour Conference (ILC) in 1957 and the subsequent Supreme Court judgement of 1992 in the case of Reptakos Co. vs its workers. The criteria's for calculation of minimum wages as given in the wage rules are as follows: (i) the standard working-class family comprising of three adult consumption units (ii) a net intake of 2700 kcal per day per consumption unit; (iii) 66 meters of cloth per year per standard working-class family; (iv) housing rent expenditure to constitute 10 per cent of food and clothing expenditure; (v) fuel, electricity and other miscellaneous items of expenditure to constitute 20 per cent of the minimum wage; and (vi) expenditure for children education, medical requirement, recreation and expenditure on contingencies to constitute 25 per cent of the minimum wage.

However, several arguments have been put forwarded stating that the above criteria for fixing minimum wages will not lead to setting up wages at an adequate level, thereby affecting the effectiveness of minimum wage policy in India (GOI, 2019a and Estupinan et al. 2020). Firstly, it is stated that the demography, age and sex composition of the population have changed vastly between 1957 and 2020 and hence three adult consumption units for calculation of minimum wages may not be adequate to meet the needs of the worker and their families. This is all the more important in the Indian context, where minimum wage fixation doesn't consider age and years of experience of the workers. Hence, for all purposes, minimum wages are considered both entry-level and exit-level wages (Satpathy and Malick, 2020).

Secondly, at present minimum wages are fixed based on calorie requirements only. However, between 1957 and 2020, India has witnessed a massive change in household consumption pattern corresponding to a higher development level and rising prosperity[19]. It has resulted in a change in consumption pattern (a preference for more diversified food) favouring non-cereal food items such as pulses, vegetables, milk and milk products, eggs and meat as per the official National Sample Survey Office (NSSO) Consumption Expenditure Survey (CES) data at various time points. Therefore, it is viewed that only calorie based estimation of food expenditure and fixation of the minimum rate of wages would be a too narrow a criterion and must be expanded to provide for protein and fat requirements (GOI, 2019a).

Thirdly, in the present calculation of minimum wages, the estimation of entire non-food expenditure is linked to the cost of estimating food and clothing expenditure. The wage rules need to recognise that the workers and their families' needs as defined way back in 1957 lack relevance in the present context due to changes in economic development and consumption patterns. As per the latest NSSO 2011/12, share of non-food expenditure is growing across all monthly per-capita expenditure (MPCE) quintile groups with rising prosperity and the share of food expenditure is declining over time as a proportion of total household expenditure. Therefore, estimation of non-food expenditure as a fixed share of food expenditure is not based on sound economic rationale. Hence, non-food expenditure must be estimated independently as per actual household consumption behaviour. Further, in the present criteria, essential non-food items such as expenditure on transport and communications have not been considered. As workers spend a lot of amount on these items, it would be appropriate to consider them to estimate the minimum wage rate.

Fourthly, expenditure on housing rent is the single most important component of the household consumption expenditure. Monthly house rent expenditure is significantly higher than the combined expenditure on food and clothing in the urban context. Further, housing rent expenditure varies significantly across the class of cities – metropolitan, non-metropolitan and rural areas. Therefore, estimation of house rent expenditure as a fixed 10 per cent of food and clothing expenditure across all types of areas/cities does not provide an evidence-based estimation and requires to be reviewed[20].

Fifthly, while the wage rules have made it statutory to adjust the dearness allowance every six months (i.e. April 1 and October 1), they do not elaborate upon

[19] As per instance Majid (2019, p.8) finds that real average monthly per capita consumption expenditure of non-regular workers (at 2011-12 prices) have increased from ₹ 957 to ₹ 1347 during 2000 to 2012

[20] The 15th ILC (1957) had recommended that house rent allowance should be fixed normatively corresponds to the minimum area provided under the Government's industrial housing scheme. However, in the wage rules the house rent, which is major non-food expenditure, has been restricted to 10 per cent of food and clothing expenditure.

the manner of adjustment of dearness allowance and price indexes to be used in such adjustments. The absence of such crucial guidelines will lead to variations in the manner of adjustments and hence in dearness allowance neutralisation rates across states, leading to the continuation of the inter-state variations in minimum wage rates.

The above discussion suggests that the criteria of fixation and adjustment of floor wages and minimum wages need a scientific and evidence-based approach to set and maintain them at an adequate level to provide meaningful and reasonable subsistence to the low paid informal and migrant workers affected by the Covid-19 pandemic. In the subsequent section, drawing from the Expert Committee Report on Determining the Methodology for Fixing the National Minimum Wage (hereafter referred to as Expert Committee), we have provided an alternative evidence-based approach to the floor and minimum wage fixation and adjustment process. We believe that wage fixation and setting as per the Expert Committee (EC) recommendations will help immensely in providing adequate subsistence to the wage earners, apart from boosting aggregate demand.

3. WAGE FIXATION PROCESS AND ADEQUACY OF WAGE LEVELS IN PUBLIC WORK SCHEMES

As discussed in the introductory section, to provide relief to the informal workers and return migrants affected by the pandemic, the government has leveraged the existing MGNREGS. It also launched a new scheme called GKRA as a part of the fiscal package under ABA. The objective of the GKRA scheme is similar to the MGNREGS except for a couple of differences. While the MGNREGS provides 100 days of guaranteed wage employment every year to adult members of the households across the country[21], the GKRA offers one-time wage employment for 125 days to migrant workers in six states. Further, the MGNREGS provides unskilled manual work. In contrast, GKRA employment opportunities are not necessarily unskilled work only. It also involves laying optical fiber, railway works, and construction of national highways and border roads, requiring semi-skilled, skilled and high skilled labourers. Lastly, while the MGNREGS wages are notified on April 1 of every financial year, the Central Government has not yet clarified whether the GKRA unskilled and skilled workers will be paid as per wages under the MGNREGS or based on corresponding state-level minimum rate of wages.

However, some Indian media have reported that workers under GKRA are paid based on MGNREGS wages[22]. Further, as twelve central government departments are implementing this programme, the possibilities of different wage rates being paid by different departments cannot be ruled out. In the absence of any clarity

[21] Details of the Act and implementation progress may be seen at: https://nrega.nic.in/netnrega/home.aspx

[22] Please see https://krishijagran.com/news/garib-kalyan-rojgar-abhiyan-here-s-how-you-can-earn-rs-202-per-day-through-this-new-government-initiative/

and as other schemes-based workers such as *Asha* and *Anganwadi* workers are considered 'volunteers' and hence not paid state-level minimum wages, it is safe to assume that GKRA workers are paid invariably as per MGNREGS wage rates. As wages under MGNREGS are way below the need-based minimum wages of agricultural workers in 5 out of 6 GKRA states, it can be safely concluded that the income transfer under the scheme is minimal (Table 1). This, *among other things*, also means that wages under GKRA are not adequate and don't correspond to the skills and productivity levels of the migrant workers. Therefore, to better integrate the return migrant workers into the local labour market and provide them credible income support, GKRA wages need to be linked with at least the minimum wages of various categories of skilled labourers under the MWA (1948).

Table 1
MGNREGS Wage Rates and Minimum Wage Rates (₹ per day) in GKRA States

GKRA States	MGN-REGS wage rates with effect from April 1 2020	MGN-REGS wages as % of Mini-mum Agri-cultural Wages	MGN-REGS wages as % of Unskilled Minimum Wages	Minimum Agricultural Wage Rates		Minimum Wage Rates by Skills Category (latest months for 2020)			
				Wage rates	With effect from	Un-skilled	Semi-skilled	Skilled	Highly skilled
Odisha	207	67%	67%	308	Oct, 2020	308	348	398	458
Bihar	194	70%	66%	279	Oct, 2020	292	304	370	451
Jharkhand	194	65%	65%	300	Oct, 2020	300	315	414	479
Madhya Pradesh	190	83%	59%	228	Oct, 2020	323	356	409	459
Uttar Pradesh	201	100%	60%	201	May, 2020	336	370	415	-
Rajasthan	220	98%	98%	225	Aug, 2020	225	237	249	299
Average	**201**	**81%**	**69%**	**257**		**297**	**322**	**376**	**358**

Source: Gazette notifications for relevant years and websites of relevant state labour departments.

Note: (1) In Odisha, Jharkhand and Rajasthan minimum wage rates for unskilled workers are considered as minimum wage rates for agricultural labourers, whereas in other three GKRA states minimum agricultural wage rates are fixed separately from that of unskilled minimum wage rates; (2) In Uttar Pradesh, minimum wages are fixed only for three skills categories.

As MGNREGS is the central public employment programme in India[23] and being implemented across the states around the year, it is pertinent to discuss wage

[23] During the 2020-21 financial year, the scheme has 13.28 crore active workers and has generated 175.33 crore man-days of employment benefitting 5.53 crore rural households. For the detail performance of the scheme visit: https://www.nrega.nic.in/netnrega/mgnrega_new/Nrega_home.aspx

fixation procedure and adequacy of wage levels under the programme. This is important more so during the Covid-19 pandemic as the Government using the programme as the main instrument to provide income and livelihood support to the rural citizens and the unemployed returnee migrants from the cities affected by the lockdown. This can be gauged from the fact that while the average monthly demand for work under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was 21.5 million households (between 2012-13 and 2019-20), the same increased to 36.1 million, 43.7 million and 31.5 million households in May, June and July 2020 respectively[24]. This reflects the massive demand for work under the scheme post lockdown and validates its critical role.

However, a press note released by the People's Action for Employment Guarantee (PAEG) shows that most states cannot provide 100 days of guaranteed employment and 1.5 crore persons who have demanded work have not got work[25]. Further, the wage rates under the MGNREGS have been criticised because of their low level, which does not even match up with the agricultural minimum wage rates in 20 out of 21 major states[26] (Appendix Table 1). The shortfall between the MGNREGS and agricultural minimum wages reaches a maximum of 34 per cent across states, with the average shortfall being 19 per cent[27]. Further, it has also been analysed that over the past eight years (2012/13 to 2019/20), the daily nominal MGNREGS wage at the national level has increased from ₹ 135 to ₹ 200 per day, while the real wage has remained more or less constant in the range of ₹ 135 to 137 per day (Aggarwal and Paikra, 2020). In contrast, average market rural and casual real wage rates have increased at a much faster rate between 2011/12 and 2018/19[28]**.** The low level of MGNREGS wages compared to the statutory minimum wages and even market casual wages and stagnation in MGNREGS real wage rates has led to calls for raising the notified wage rates under the scheme to ₹ 600 per day and strengthening and expanding the scope of MGNREGA by increasing the mandatory workdays to 200 days and extension of MGNREGA to urban areas[29].

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[24] In July 2020, number of households sought work under the programme reduced a bit to 31.5 million as casual labourers returned to work in farms for sowing *Kharif* crops.

[25] As reported in https://www.newsclick.in/Budgetary-Allocation-Exhausted-COVID-19-Package-Released-NREGA-Tracker

[26] Uttar Pradesh is the only state where agricultural minimum wages exactly matches up with the MGNREGS wages. This is primarily because agricultural wages in the state are not adjusted with dearness allowance in every six months (unlike minimum wage rates for non-agricultural workers) and hence wage levels are lower.

[27] The average shortfall would be further higher, if all the states follow a uniform method and timeline to revise and adjust their basic agricultural minimum wages.

[28] In a recent workshop at the V. V. Giri National Labour Institute on 7th October 2020 a presentation by Xavier Estupiñan (ILO, wage specialist) on the basis of NSSO data presented that daily rural real wages have increased from ₹ 203 to ₹ 245 during 2011/12 to 2018/19, while the daily casual real wages have increased from ₹ 191 to ₹ 237 during the corresponding period.

[29] The call was given by MGNREGA *Sangharsh Morcha* as reported in the Hindu. For details please see https://www.thehindu.com/news/national/amid-demand-surge-14-lakh-families-have-reached-annual-mgnrega-work-limit/article32006305.ece

One of the main reasons for the low level of MGNREGS wages can be attributed to wage fixation, revision and adjustment provisions under the Act. The MGNREGA has two important provisions relating to the type of wages to be paid under the programme[30]. Section 6.1 of the Act empowers the Central Government to specify through notification either a single wage rate for the entire country or different wages rates for different areas, notwithstanding anything in the MWA (1948). Further, it stipulates that wage rate specified from time to time under any such notification shall not be at a rate less than sixty rupees a day. Further, Section 6.2 of the Act states that until such time the Central Government fixes the wages under section 6.1, the minimum wages for agricultural labourers fixed by the State Government under Section 3 of the MWA, 1948, shall be considered as the wage rate applicable to that area.

A comparison of Section 6.1 and 6.2 of the MGNREGA suggests that unlike in 6.2 where the basic minimum rate of wages of agricultural labourers under the MWA, 1948 are fixed and revised to a large extent by states as per set need-based norms in every five years and adjusted concerning inflation in every six months, under 6.1, the procedure of fixation of MGNREGS basic wage rates and its adjustment process with respect to inflation have not been laid out. Further, there is no clarity relating to how ₹ 60 per day have been arrived as the basic MGNREGA wage rate as given in Section 6.1. It was pointed out that this figure has been arrived arbitrarily without supported by any methodology and was lower than even the minimum agricultural wage rates of some of the states at the time of enactment in 2005 (Sivakumar 2010; Sankaran 2011). Given the alternative provisions in the Act and no clarity relating to the process of wage fixation and adjustment under Section 6.1, therefore, at the time of launching the MGNREGS scheme in 200 districts in 2006/07, the Central Government invoked Section 6.2 as a transitory measure.

The above decision enabled the Government to link wages under the MGNREGA as per the minimum wages of agricultural labourers fixed by various state governments. In the first year of implementation in 2006/07, MGNREGS wages per day varied in the range of ₹ 50 in Gujarat to a high of ₹ 125 in Kerala (Appendix Table 2)[31]. However, in the immediate next year, i.e., in 2007/08, 10 out of 27 states where the scheme was being implemented revised their minimum wages for agricultural labourers upwardly, leading to demand for more funds from the MGNREGA towards wage payment[32]. In at least four states such as Haryana (from ₹ 99 to ₹ 135 a day); Madhya Pradesh (from ₹ 63 to ₹ 85 a day); Nagaland (from

[30] Please see Section 6 of the Act available at: https://www.indiacode.nic.in/bitstream/123456789/2014/1/A2005-42.pdf

[31] Based on Table 1.1 (page 7) in MGNREGA Sameeksha where data is provided for 27 states, excluding union territories. For details please see: https://nrega.nic.in/Circular_Archive/archive/MGNREGA_SAMEEKSHA.pdf

[32] Some of the states who revised their rates between 2006/07 and 2007/08 were Arunachal Pradesh (from ₹ 57 to ₹ 67); Assam (from ₹ 66 to ₹ 76); Bihar (from ₹ 68 to ₹ 77); Haryana (from ₹ 99 to ₹ 135); Karnataka (from ₹ 69 to ₹ 74); Madhya Pradesh (from ₹ 63 to ₹ 85); Maharashtra (from ₹ 47 to ₹ 72); Manipur (from ₹ 72 to ₹ 81); Nagaland (from ₹ 66 to ₹ 100); Odisha (from ₹ 55 to ₹ 70).

₹ 66 to ₹ 100 a day); and Maharashtra (from ₹ 47 to ₹ 72 a day) this hike was very steep, while in the rest six states, the upward revisions were modest (in the range of ₹ 9 to ₹15 a day). These upward revisions by states were not unreasonable as have been argued elsewhere, as Section 3.1 of the MWA (1948) empowers the state governments to revise the basic rate of agricultural wages in every five years and through a tripartite consensus[33] to adjust minimum rates of wages in line with price indexes in every six months to provides adequate and effective protection to the workers at all times and in all locations. However, it may have happened that some of the states, which are not prompt enough in undertaking this revision and adjustments before MGNREGA, started undertaking timely revisions to draw more money from the MGNREGA towards wage bills to provide rightful benefits to the workers.

As the Central Government entirely supports the wage burden under the Act, the hike in minimum agricultural labour wages by ten states created apprehension that the MGNREGA will be financially unsustainable in the long-run if other states are resorting to a similar upward revision in future under the MWA, 1948. Therefore, with effect from January 1, 2009, the MGNREGA wage fixation was moved from Section 6.2 to Section 6.1 of the Act, empowering Central Government to notify MGNREGA state-wise wage rates for each financial year.

Given the above development and in the absence of any built-in mechanism for fixation of basic wage rates under Section 6.1 of the Act, the Government through a notification issued on December 15, 2009, enhanced the basic wage rate under the MGNREGS from earlier ₹ 60 per day to ₹ 100 per day. Again, there was no clarity relating to the method and evidence used for this upward revision[34]. Further, to arrive at an MGNREGS wage distribution across states, in twenty states where minimum agricultural wages were below ₹ 100 per day before December 1, 2008, the Government enhanced these wages to ₹ 100 per day[35] and in four States such as Goa, Haryana, Kerala and Mizoram where the minimum agricultural wages were higher than ₹ 100 per day, the Government protected these higher wages. Based on the aforesaid decision, the Central government notified a new MGNREGS state-specific wage structure under Section 6.1 of the Act (Appendix Table 2, column 5). However, the State Governments were given the flexibility to notify higher wage rates above the central rates and pay the difference from their budgetary resources. As this arrangement will put a substantial financial burden on the states and an unsustainable arrangement, none of the state governments have adopted it.

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[33] In 1988, Labour Ministers' Conference took the decision that minimum wages be linked to the CPI-IW to address changes in cost of living over time.

[34] The only reference for this increase can be found in the July 6, 2009 budget speech of the then Finance Minister Pranab Mukharjee which was based on Congress 2009 election manifesto that had promised at least 100 days of work at a real wage of ₹ 100 per day as entitlement under the MGNREGA.

[35] However, for four states (Arunachal Pradesh - ₹ 80; Jharkhand - ₹ 99; Manipur - ₹ 81.4; and Odisha - ₹90), the revised rates were not notified. The reasons thereto are not available in official document.

Apart from non-clarity relating to the methods for fixation of basic wage rates under MGNREGA, Section 6.1 also doesn't mention the wage adjustment process to account for price changes, which is the other reason for the prevalence of low nominal wages under the programme. Therefore, after delinking MGNREGS wages from that minimum agricultural wage rates from January 1, 2009, no price adjustment was made for two successive years, and real wages continued to stagnate. This is despite the fact that a wage working group[36] constituted by the Ministry of Rural Development (MoRD) in March 2010 under the Chairmanship of Professor Jean Dreze recommended to index MGNREGS wages to the price level using the Consumer Price Index for Agriculture Labour (CPI-AL) with April 1, 2009, as the base to protect the real wages of the workers at least to the level of ₹ 100 per day at April 2009 prices. The group further recommended to adjust the MGNREGS wages upwards in line with the CPI-AL every six months or at least once in a year. Only on January 1, 2011, administrative decisions were taken, and wages were adjusted with CPI-AL of the respective States/UTs at the end of every financial year. Since then, two committees have been constituted by the MoRD, i.e., Mahendra Dev Committee in 2015 and Nagesh Singh Committee in 2017 to suggest indexing of MGNREGS wages with appropriate price index.

The Mahendra Dev Committee recommended that the consumption basket for both CPI-AL and Consumer Price Index-Rural Labour (CPI-RL) was based on 1983-NSSO, Consumption Expenditure Survey, which is outdated. The Committee noted that CPI-Rural (CPI-R), which was introduced in 2010 by the Central Statistical Organisation had a more recent weighting diagram. Therefore, they recommended indexation of MGNREGS wages with CPI-R, as the consumption basket of CPI-R is of more recent vintage than CPI-AL. The Committee further recommended that the CPI-R index for an average of 12 months be the proper index for indexing MGNREGS wages instead of indexing MGNREGS wages with CPI-AL of December month only. The Nagesh Singh Committee which was constituted after that while endorsing Mahendra Dev Committee recommendations[37] had estimated a financial requirement of ₹ 600 crores for shifting from CPI-AL to CPI-R[38]. However, given the extra-budgetary implications, the proposal has not yet received the Finance Ministry's approval. Hence, MGNREGS has failed to fully neutralise the workers' wages to price changes to date.

Many civil society organisations have criticised the changed wage fixation process under MGNREGA from Section 6.2 to 6.1 and its inability to fully neutralise the workers' real wages as the main reasons for the prevalence of undue low level of MGNREGS wages. They have argued that payment of MGNREGS wages less

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[36] The wage working group is one of the six working group constituted by the Ministry of Rural Development (MoRD) to look into implementation aspects of the MGNREGA.

[37] Recommendations may be seen at: https://rural.nic.in/press-release/minimum-wages-mgnrega

[38] As reported in Indian Express and may be seen at: https://indianexpress.com/article/india/mgnrega-wages-less-than-minimum-farm-wages-in-15-states-panel-4743412/

than the minimum agricultural wages under the MWA, 1948 for undertaking similar work amounts to forced labour and in violation of Article 14 and Article 23 of India's Constitution. Similarly, the January 1, 2009, decision of the Central Government making itself sole authority to fix MGNREGS wages under Section 6.1, evoked displeasure from some state governments such as Tripura, Karnataka, Punjab, West Bengal, Madhya Pradesh and Himachal Pradesh, who proposed amendment to the said order as the state minimum wage rates were higher than the notified MGNREGS wages (Sivakumar 2010). Further, the Andhra Pradesh High Court in a case filed by NREGA workers suspended the operation of Section 6.1 of the MGNREGA stating that the Government being the agency for implementing minimum wages, cannot itself violate minimum wages[39].

However, the Government has argued that the nature of work assigned under the MGNREGA is separate and distinct from those listed under the Schedule to the MWA (1948). Further, it argued that MGNREGA work should be viewed as a social safety net. It is meant to be used as a last resort to supplement the rural households' livelihood security on account of temporary distress conditions. Hence, the intention is not to force unwilling labour on any person. These are precisely the reason why Section 6.1 prescribes wage rates under MGNREGA in a way that clearly distinguishes it from minimum wages for agricultural labourers. Given the contrasting arguments, in a recent judgement on February 26, 2020[40], the Madras High Court in the case of R. Gandhi vs The Union of India while accepting the submission of the Government noted that the rights claimed under the MGNREGA would be governed by its provisions and cannot be construed to be a scheme or an Act for encouraging exploitation of labour to violate Article 23 of the Constitution of India. It further stated that as the nature of the claim, the work and the projects that are to be executed are different and not a stable workforce engaged for performing any regular work, therefore the same is not a violation of Article 14 of the constitution. This judgement brought somewhat finality to the ongoing legal battle, thereby firmly establishing Central Government as the sole authority to fix MGNREGA wages under Section 6.1 of the Act. However, the said section doesn't provide any criteria for fixation of basic wage rates, its revisions, and adjustments.

While the legal window to seek parity between MGNREGS wages and state agricultural minimum wages is relatively narrow now, the Government could have addressed the issue of fixation of MGNREGS wages at an adequate level under the recently enacted wage code in 2019. The wage code which is a Central Act has a provision of fixation of a binding universal 'national floor wage' by the Central Government based on minimum human needs of the workers and their families, above which the state government shall fix their respective minimum wage rates. The

[39] Andhra Pradesh is one of the states where notified MGNREGS wages at ₹ 80 per day was less than the state agricultural minimum wages (₹ 125 per day) by ₹ 45 per day.

[40] The details of the case may be seen at: https://indiankanoon.org/doc/181924954/

national floor wage, which would be decided through evidence-based consultative mechanisms with social partners and state governments, could have been extended to MGNREGA as its basic wages, subsequent to which the MoRD could have carried out appropriate price revision (on a bi-annual or on on an annual) to protect the real wages of the workers. However, this options of even linking floor wage under the wage code as the MGNREGA basic wages stand foreclosed as Section 66 of the wage code[41] categorically states that "nothing contained in this Code shall be deemed to affect the provisions of the Mahatma Gandhi National Rural Employment Guarantee Act, 2005 or any scheme made thereunder". Inclusion of this non-obstante provision, *among other things,* denies any scope for future inter-linkage between floor wage and statutory minimum wage rates with MGNREGS wages, thereby making Section 6.2 of the MGNREGA, 2005 virtually ineffective. To that extent, the wage code also restricts the extent of its universal applicability charm. These developments in the judiciary and legislative space will significantly limit the effectiveness of MGNREGA in the future and thereby renders income transfer under the scheme unviable for the informal and migrant workers and their families. This calls for finding alternative solutions within the Section 6.1 of the MGNREGA (through relevant amendments) and through administrative decisions – to set MGNREGS wages at an adequate level by following evidenced-based and need-based methodology and linking MGNREGS wages with appropriate price indexes – which is taken up in the next section.

4. TOWARDS STRENGTHENING WAGE POLICIES IN INDIA

The preceding sections discussed that wage policies could form an essential element of an integrated strategy to protect the informal and migrant workers' incomes affected by lockdown-induced job and income losses. The statutory minimum wages through its redistributive mechanism and MGNREGA wages as an effective fiscal stimulus could help alleviate the hardship faced by the workers and returnee migrants. The increase in the purchasing power of low-income workers with a high propensity to consume will boost aggregate demand, catalysing private investment, and give significant momentum to the economic recovery process. However, for wage policies to act as an effective antidote, wage levels and their adequacy along with full implementation are of paramount importance.

It was discussed that the level of both statutory minimum wages and MGNREGS wages are very low in India, and several implementation bottlenecks inhibit them from delivering welfare results. The low level of statutory minimum wages across many Indian states can be attributed primarily to the existing wage fixation methods, non-uniformity in methods used, and adjustment process across states. Further, recently enacted wage code and wage rules have not succeeded entirely in addressing these issues. Similarly, it was discussed that Section 6.1 of the MGNREGA, 2005 doesn't provide any mechanism for the fixation and

[41] Please see Section 66 of the Code on Wages (GOI, 2019c) at http://egazette.nic.in/WriteReadData/2019/210356.pdf

adjustment process of MGNREGS wages and hence basic wages as argued have been set arbitrarily and price adjustments continue to be done with an outdated index. These limitations in wage policies coupled with implementation issues are reflected in terms of the prevalence of the low level of statutory minimum wages and MGNREGS wages, thereby limiting these policies' effectiveness in protecting income and standard of living informal and migrant workers.

With this background, we propose an alternative approach to set and revise minimum wages and MGNREGS wages at an adequate level, in the subsequent section. This, we believe, will significantly strengthen the wage policies in addressing their stated objectives of poverty and inequality and support a human-centred economic recovery process.

4.1 Alternative Approach to set Minimum Wages at an Adequate Level

An alternative approach to set statutory minimum wages at an adequate level can be drawn from the Expert Committee (EC) report on determining the methodology for fixating national floor minimum wage (GOI, 2019a)[42]. The EC in accordance with the provisions of the wage code[43] and based on scientific and evidenced based approach had suggested a need-based floor wage and also had elements for fixation of statutory minimum wages by taking into account changes in economic development[44], demography, family size, consumption patterns, nutritional intakes and work intensity since 1957, when the 15th ILC provided its recommendations for the first time.

Based on the latest evidence from official statistics; it suggested enhancing the consumption unit from 3 to 3.6 units per family to calculate wages. It had also suggested shifting from the existing calorie based approach to a nationally representative and culturally palatable balanced diet approach to fix the national floor wage[45]. The updated evidence established a recommended intake of 2400 calories, 50 grams of protein and 30 grams of fat per day per capita for estimating the cost of a food basket. As far as non-food cost is concerned, it had proposed to estimate the same as per household consumption behaviour and not as a fixed percentage of food and clothing cost, as is done presently. Besides, the EC had also recommended expanding the non-food basket to include essential items such as transport and communication (including internet) expenditure and also to estimate house rent allowance as per actual expenditure incurred and not as a fixed 10 per cent of food and clothing expenditure as provided in the wage rule. Applying the above methodology to the Consumption Expenditure Survey (CES) data for 2011/12 (NSSO 2014), the EC had recommended fixing the national floor

[42] The authors were associated with the EC as its Chairman and members respectively.

[43] The wage code provides for fixation of either a single national floor or different national floor for different geographical areas of the country by the Central Government on the basis of minimum human needs of the workers and their families.

[44] Engel's law is an economic observation stating that the proportion or share of income spent on food decreases as income rises, even if absolute expenditure on food rises.

[45] See report of the EC (GOI, 2019a:33-52) relating to detailed methodology for floor wage-setting.

wage[46] at 375 Indian rupees per day (as per July 2018 prices), irrespective of skill level, occupation and location (Table 2).

Apart from suggesting a national floor wage level, the EC had also suggested regional floor wage levels as an alternative arrangement according to the provision of the wage code. The regional floor was suggested considering a scenario wherein implementing a single national floor is not feasible for a vast and diverse country like India. To estimate the regional floor wage, the EC had grouped states into four regions (Region 1 to Region 4) by ranking states in a composite index that considered factors such as state income, cost of living, labour market situation and women empowerment. Among the four regions so constructed, Region-1 comprises the least developed states, while Region 4 contains India's developed and advanced states[47]. Subsequently, all the north-eastern states (except Assam) were clubbed into Region 5 because of their similar socio-economic, labour market and geographical situations (Appendix Table 3). After forming the regions, the EC had estimated the level of floor wages at the regional level varying from rupees 342 per day in Region-1 to rupees 447 per day in case of developed states in Region-4, as per July 2018 prices (Table-2).

Table 2
Level of the National and Regional Floor and Statutory Minimum Wage Rates (in ₹, July 2018 Prices) as per the Balanced Diet Approach

National/ Regional	2400 calorie level National/Regional Floor Wage		2,700 calorie level National/Regional Statutory Minimum Wage	
	Daily Wage Rates/day	Total Monthly Wages	Daily Wage Rates/day	Total Monthly Wages
National	375	9,750	407	10,582
Region 1	342	8,892	372	9,672
Region 2	380	9,880	412	10,712
Region 3	414	10,764	449	11,674
Region 4	447	11,622	480	12,480
Region 5	386	10,036	418	10,868

Source: Report of the Expert Committee on Determining the Methodology for Fixing the National Minimum Wage (GOI 2019a).

[46] The EC had used the term 'national minimum wage' as per the Code on Wages Bill, 2017. However, in 2019 version of the bill the term 'national minimum wage' was replaced with the term 'floor wage'. Hence, in this paper the term floor wage has been used.

[47] The report of the EC (GOI 2019a: 43-47) provides a detailed account of the methods related to categorization of states into regions and the estimation of regional floor minimum wage rates.

In addition to recommending the floor wage levels corresponding to 2400 calories, using similar methods, the EC had also estimated the possible level of national minimum wages corresponding to the 2700 calories which the central and state governments may consider as the statutory minimum rate of wages to be fixed above the floor wage in their respective sphere. Based on the method described above, the EC had provided an estimation to enable the Central Government to fix its statutory minimum wage rates at 407 rupees per day irrespective of skill level, occupation and location (Table 2). Subsequently, it had also provided estimation relating to the possible level of regional statutory minimum wage rates by applying regional prices to the national food and non-food consumption basket, while keeping the other fixation norms constant. Accordingly, it had suggested statutory minimum wages for unskilled workers for various regions ranging from rupees 372 per day for states in Region-1 to 480 rupees for states in Region-4 (Table 2) for consideration of respective state governments falling under specific regions. If accepted and incorporated in the wage rules, this methodology will help set up both floor wages and minimum rate of wages at an adequate level, bring uniformity in wage fixation criteria across states and allow for wage differentiation across regions to the extent regional prices differ.

Table 3

Percentage Gap between Latest Notified Unskilled Minimum Wage Rates and Recommended National and Regional Floor and Minimum Wage Levels by the EC for Region 1

Region 1 States	Latest unskilled minimum wage rates (in ₹/day)	% Gap between EC recommended level of unskilled wage rates with that of latest unskilled minimum wage rates fixed by states		
		Gap between National floor wage (₹ 375/ day) & state unskilled minimum wages	Gap between Regional floor wage (₹ 342/ day) & state unskilled minimum wages	Gap between Regional minimum wage (₹ 372/day) & state unskilled minimum wages
Odisha	308	18%	10%	17%
Assam	282	25%	18%	24%
Bihar	292	22%	15%	22%
Jharkhand	300	20%	13%	20%
Madhya Pradesh	323	14%	6%	13%
Uttar Pradesh	336	10%	2%	10%
West Bengal	296	21%	13%	20%

Source: Latest notifications of the State Labour Departments for unskilled minimum wages in 2020 and Report of the Expert Committee on Determining the Methodology for Fixing the National Minimum Wage (GOI 2019a).

Comparing the percentage gap between prevailing state-specific unskilled minimum wages with that of national/regional floor wage and regional minimum wage rate for Region 1(less developed states) recommended by the EC is made in Table 3. The analysis shows that unskilled minimum wages in most of the states in Region 1 especially in Assam, Bihar, Jharkhand and West Bengal at present is much lower compared to the EC recommended single national floor wage level of rupees 375 per day but relatively closer to the regional floor wage level of rupees 342 per day. This attests that setting a regional floor wage anchored on regional cost of living would be a more feasible option for India than setting a single national floor wage based on the average cost of living of all regions taken together. Further, as far as the percentage gap between prevailing unskilled minimum wages in the states and the EC's option of regional statutory minimum wage levels is concerned, it has much to do with non-uniformity in wage fixation, revision and adjustment criteria across states than with inter-state differences in the cost of living. Therefore, once the inter-state differences in minimum wage fixation and revision criteria's have been made uniform as per EC's recommendations and a standard method of calculation is followed across states, the differences in minimum wage levels between the states in Region-1 will narrow down and accordingly wages will move upward and closer towards the EC recommended wage levels. The same also holds true for the other four regions of the country as well.

Therefore, it is crucial to have a closer look at the EC report and incorporate its alternative approach of wage determination as appropriate in the wage rules, which is under consideration of the Government stating the exact methods of fixation of need-based floor wages and statutory minimum wages. This policy intervention would enable the Central and State Governments to set these wage rates at an adequate level based on a uniform methodology after the wage code becomes effective. Along with this, elaborating a method for adjustment of dearness allowance and its regular adjustment will help maintain minimum wages at an adequate level with respect to price changes. These measures will also help align growth in real minimum wages in line with growth in labour productivity[48] and offsett the subdued demand situation grappling the economy.

4.2 Alternative Approaches to set MGNREGA Wages at an Adequate Level

There can be at least four alternative approaches to set and adjust MGNREGS wages. Corresponding to the approach adopted, the wage rates under MGNREGS shall vary from an adequate level of wages to poverty line wages. But each of these proposed approaches is better than the existing approach wherein MGNREGS basic wages are fixed arbitrarily at ₹100 per day with effect from April 1, 2009, with no subsequent revision with an updated price index thereafter. There are no past instances in India to suggest where basic wages in any employment have been

[48] As per the Global Wage Report: 2020-21 (ILO, 2020f), in India, the annualized real minimum wage grew at a rate of 3.9 per cent, while annualized productivity growth happened at faster rate of 5.5% between 2010-2019.

allowed to languish for over a decade without revision. Below, we have outlined each of these approaches in greater detail, including their implications on workers, requirement of resources and challenges involved (Table 4).

The best approach for MGNREGA wage setting can be found in its objective, which aims at ensuring 'livelihood security' to the poor rural households through 100 days of guaranteed unskilled manual work. And this guaranteed work is expected to provide a 'minimum standard of living' to the poor workers and their families in times of distress and as a last resort. Therefore, it is inconceivable to think that MGNREGA will be able to provide livelihood security without guaranteeing a statutory minimum wage. Hence, the provision of more jobs in times of distress shouldn't be put forward as a sensible justification for offering sub-minimum wages under the programme. Instead, as a last resort and in a crisis, wage-income transfers should be adequate enough to allow the workers and their families to avail a decent minimum standard of living.

Further, the argument that the nature of work under MGNREGA are 'distinct' from that of work under MWA, 1948 and hence the payment of sub-minimum wages, doesn't hold much ground as both occupations involve 'broadly' similar nature of work which unequivocally requires 'manual' labour with no skills. Even if MGNREGA involves piece-rate work, the legislative provisions provide for at least time rate wages to the piece-rate workers both under MWA, 1948 and wage code. Even internationally, given that the piece-rate system is complicated to administer, information available from 44 public works programs in 37 countries shows that 77 per cent of the programs paid daily wages. In contrast, only 14 per cent paid piece rates (Subbarao et al., 2013). Therefore, return from manual and unskilled occupations under two central legislations should be measured and valued similarly through a need-based approach in such a way that these returns at least ensure a minimum standard of living. Therefore, the best option for MGNERGA is to provide at least the state level unskilled minimum wages[49]. In this way, by setting wages at an adequate level, MGNREGA would successfully protect the standard of living and income of the migrant and informal workers, while contributing effectively as a fiscal policy tool in raising village incomes and demand (Table 4).

Activating the best options of linking MGNREGS wages with that of state minimum wages, at this point requires relevant amendments to Section 6 of the MGNREA as well as Section 66 of the wage code. Enough reasons exist for such amendments within these regulations' objectives, but the will to do so is lacking due to budgetary constraints. However, at least the Government should consider the best option as a transitory measure and immediately implement the same for recovery of the pandemic stricken economy with a sunset clause for two years.

[49] The code on wages has stopped the practice of fixation of minimum wages by scheduled employment/occupations and provides for fixation of minimum wages by skills levels. So in future as there would be no fixation of minimum wages for agricultural labourers by states and hence, relevant wage reference for MGNREGA would be state level unskilled minimum wages.

The second-best approach could be at least to benchmark 'basic' MGNREGS wages with that of national floor wages[50] to be set under wage code by the Central Government at a level below the state statutory unskilled minimum wages. This measure is vital to set the MGNREGS basic wages at an appropriate level as it was cited that the basic wages set in 2009 at ₹ 100 per day were decided arbitrarily without supported by any method. This revision of basic wages, therefore is long overdue. This approach may entail relevant amendments to the respective legislation, but this will ensure reasonable pay to the workers with a relatively smaller impact on the MGNREGA budget.

Table 4
Alternative Approaches to MGNREGS Wage Setting and Adjustment Process

Available Options	Approaches	Results	Challenges
Best option	Linking MGNREGS basic wages with state-level minimum wages for unskilled labourers so that similar nature of work can be paid similarly through a need-based criteria and subsequently undertake six-monthly adjustments to account for changes in the cost of living as per the wage code and wage rule. There could be a full linkage (100%) or a partial linkage[51] to the unskilled minimum wages. The Government should consider this option and immediately implement for facilitating the recovery of the pandemic stricken economy as part of fiscal measures even with a sunset clause for two years.	Win-win situation for both the central legislations and ensures policy coherence. While MGNREGA can effectively ensure a minimum standard of living in a time of distress through wage employment, the wage code can widen its objective of the universal applicability of minimum wages and timely payment of wages to all wage earners including those involved in public employment programme such as MGNRGEA.	Requires amendment of Section 6 and Section 66 of the MGNREGA and wage code, respectively. The budget constraint could be a challenge but given the objective of lifting people out of poverty and placing them in a better productive and remunerative job is the ultimate goal of MGNREGA, adequate income transfer under the programme should receive priority over budget constraint in a crisis.

[50] This recommendation is based on the assumption that floor wage shall be fixed as per the minimum standard of living of a worker and in consultation with the state governments and social partners. Hence, the monetary value of basic floor wages so arrived shall be more acceptable and higher than the existing MGNREGS wages rates in many states. It may so happen that in some developed states the existing MGNREGA wage rates might be higher than the estimated floor wage rates under the wage code and in such a situation higher MGNREGS wage rates must be protected.

[51] In Nepal, the Prime Minister Employment Program introduced in the FY 2018/19 in line with Article 33 of the Constitution of Nepal, which considered employment as the fundamental rights and guarantees every Nepali the right to have employment. All the registered unemployed citizens should get employment opportunities for at least 100 days in a year and if the government fails to employ those registered with the ESCs, the government must pay them 50 per cent of the minimum wage as unemployed allowance.

Available Options	Approaches	Results	Challenges
Second best option	Benchmark MGNREGS 'basic' wages with that of 'basic national floor wages' under the wage code and subsequently undertaking the cost of living adjustments every six months as per average changes in CPI-R as suggested by the Mahendra Dev Committee. This approach will also address the issue of arbitrary fixation of MGNREGA basic wages in 2009 at ₹ 100 per day.	Extension of sub-minimum wages in the form of statutory floor wages to the MGNREGA workers so that the workers and their families are reasonably protected. The wage code's objective shall also be fulfilled as it mandates that no wage earners in the country fall below the statutory floor.	Requires amendment of Section 6 and Section 66 of the MGNREGA and wage code, respectively. Budget constraint may be an issue but not as big as an issue as in the case of 'best option' given that floor wages shall be below the state-specific statutory minimum wages of unskilled labourers.
Minimalistic option	Benchmark MGNREGS 'basic' wages with that of the per day equivalence of rural poverty line. If one considers the Rangarajan Expert Group (2014) poverty line, per day, basic wages would be around ₹ 186 as per 2011-12 prices. This poverty line basic wages may be updated to the latest time point by indexing with CPI-R to protect the workers' real wages. Once the updated basic wage is arrived at, the subsequent cost of living adjustments may be done every six months as per CPI-R changes.	Extension of the poverty line 'basic' wages to MGNREGA workers will ensure that the workers and their families' body and soul are at least protected, if not more. Indeed this approach would be a relatively better option than the existing approach wherein basic wages of ₹ 100 per day set in 2009 are way below the poverty line wages.	An administrative decision is required, while no amendment in legislation is required. Budgetary implications would be there but these cost escalations would be concomitant to the changes in the cost of living and development level since April 2009 when the last basic wage revision happened under MGNREGS.
Last option (Social dialogue based)	Constitution of an MGNREGS wage fixation advisory board with members from State Governments, civil society organisations, experts and Central Government officials to determine the norms for fixation of MGNREGS wages as per minimum standard of living distress situation and its revision/adjustment process. Based on consultation with the advisory board, the Central Government shall notify the basic wages and undertake six-monthly price adjustments concerning CPI-R.	Harmonious determination of MGRNEGS wages supported by evidenced-based methodology and wages so arrived at shall be acceptable to all stakeholders and certainly shall be higher than the existing basic wage of ₹ 100 rupees per day. This wage would also protect the minimum standard of living of the workers and their families as set out in the Act.	Requires amendment to Section 6.1 of the MGNREGA to incorporate wage-setting norms and adjustment process into the main body of the Act – a process similar to the wage code. Additional resource requirement for this option shall depend on what constitutes minimum living standard in temporary distress conditions and a situation of last resort as agreed in the advisory board.

In addition to the above two approaches, one could think of a minimalistic option of benchmarking MGNREGS basic wages with that of poverty-line wages in the first stage and then subsequently updating the basic wages so arrived at with CPI-R in every six months to arrive at MGNREGS daily wages (Table 4). In this way, MGNREGS wages will be set at a level to protect the body and soul of the workers and their families and be implemented through an administrative decision.

The last option is to determine MGNREGS wage rates by evolving evidences-based norms and methods to define what constitutes 'basic minimum standard of living' to provide livelihood security to the poor in times of temporary distress condition and as a last resort. This method and definition may undertake international pieces of evidence in this regard. At present, this basic minimum standard of living is monetarily fixed at ₹ 100 per day. However, this rate has been set arbitrarily without methodological backing and is one of the prime reasons behind the prevailing low level of MGNREGS wages. Therefore, there is a need to constitute an MGNREGA specific wage fixation advisory board with members from state governments, civil society organisations, experts and central government officials to arrive at a method and estimate a monetary value for MGNREGS wages. Based on consultation with the advisory board, the central government may notify the basic wages and also undertake price adjustment every six months. However, to bring this plan to fruition, Section 6.1 of the MGNREGA requires amendment incorporating wage-setting machinery, norms, and adjustment process into its main body.

5. CONCLUSION

In pre-Covid times, India was facing more of a wage problem than a job problem, given the pervasive pool of low-quality employment as a share of total employment in the country. The spread of the Covid-19 pandemic and resultant stringent lockdown measures has aggravated this problem further by seriously affecting millions of low-wage workers' livelihoods and earnings. The pandemic worst hits the informal and migrant workers, hard to reach, at the bottom of the labour market. Studies show that in India, jobs and wage losses suffered by the informal and migrant workers are much higher than their formal counterparts. It is further predicted that the pandemic would push 41 million Indians into extreme poverty and further deepen existing income inequality in the low-end labour market.

In order to mitigate the economic impact of the pandemic, the GOI has taken a series of short-term measures immediately after the lockdown to protect workers' wages and incomes and also medium to long-term measures to stabilize the economy. In all total, the GOI has deployed the ABA stimulus package in three phases amounting to 15 per cent of the GDP to help people, businesses, and low-income workers. While the size of stimulus support was comparable to similarly placed countries, the stimulus package's composition was subject to much criticism. It has been often stated that a significant part of the support was meant to correct supply-side

disruptions than to raise demand. Further, the targeted social assistance package in the form of cash and in-kind transfers that were extended to poor households and vulnerable workers as part of fiscal actions were considered modest, and the demand for universal monthly cash transfers was resolutely rejected.

As a part of the fiscal policy sub-component of the ABA stimulus, the GOI enhanced allocations under MGNRGS and introduced a new GKRA scheme to provide employment to the return migrant and affected rural citizens. Mindful of the fact that MGNREGS wages and statutory minimum wages are an essential element for providing protection to the workers and reviving the economy, the GOI had increased average MGNREGS wages by ₹15 per day and announced the establishment of a statutory national floor wage and extension of legal coverage of minimum wages to all wage earners. While these prompt actions are noteworthy, the extent to which these interventions will help protect and restore the informal and migrant workers' income is under question, given the low level of MGNREGS wages and statutory minimum wages in India. The situation is further complicated because of the inability of the states to provide 100 days of guaranteed job under MGNREGS including delay in wage payments and rejection of wage payments and poor compliance to the statutory minimum wages.

In this context, this essay examined issues with the existing wage setting, revision and adjustment process and identified elements behind the continuous prevalence of low level of statutory minimum wages and MGNREGS wages. The paper argues that the existing procedure of setting of minimum wages in India has failed to capture the realities of current consumption pattern and is one of the prime reasons behind the prevalence of low level of minimum wages. The paper while appreciating significant reforms that have been introduced in the wage code and wage rules (including the one relating to the extension of legal coverage of floor wage and minimum wages to all wage earners) argues that the impact of these reforms would be limited as reforms relating to setting and maintaining the level of minimum wages continues to be based on the old framework and as the criteria for setting and revision of floor wages have not even laid out in the wage rules. Similarly, in the context of MGNREGS wages, the paper found that the wage rates under the programme are low and does not even match up with the agricultural minimum wage rates in 20 out of 21 major states. Some the reasons identified for the prevalence of low level of MGNREGS wages are attributed to the decision of delinking MGNREGS wages from that of the state agricultural minimum rate of wages in 2009; subsequent fixation of MGNREGS basic wages devoid of any methodological backing and the practice of adjustment of MGNREGS wages with outdated Consumer Price Index for Agriculture Labour (CPI-AL). These limitations in wage policies coupled with implementation issues are reflected in terms of the prevalence of the low level of statutory minimum wages and MGNREGA wages, thereby limiting these policies' very effectiveness in protecting income and standard of living informal and migrant workers.

The precarious position of the informal and migrant workers in the labour market has heightened the call for policy intervention to reset both the minimum wages and MGNREGS wages at an adequate level paving the way for a human-centred and demand-led economic recovery process. In this backdrop, the paper presents a case for strengthening India's wage policies by providing an alternative framework for setting statutory floor wages and minimum wages at an adequate level based on the recommendation of the Expert Committee (EC). Similarly, in the context of MGNREGS, the paper provides four alternative approaches to set and adjust MGNREGS wages and argues that each of these proposed approaches would be better options than the existing approach of fixation and adjustment of wages under the programme.

In conclusion, the paper argues that the alternative framework by setting and maintaining statutory wages and MGNREGS at an adequate level will not only make the redistributive effect of wage policy much more robust in terms providing livelihood security to the low paid informal and migrant workers but also in addressing poverty and inequality. This alternative and strengthened wage policy can also supplement and act as an essential component of the fiscal policy tool under the ABA stimulus package to boost private consumption and to restore aggregate demand, investment and promoting economic growth back to the pre-crisis levels.

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Appendix

Appendix Table 1: Shortfall between notified MGNREGS Wage Rates and Minimum Agricultural Wage Rates (₹ per day)

States	Latest Notified Minimum Agricultural Wage Rates		MGNREGS Wage Rate Effective from April 1, 2020-21	Shortfall of MGNREGS Wages from Minimum Agricultural Wage
	Wage rates	Effective from (year/month)		
Karnataka	425	20-Apr	275	150
Kerala	410	17-May	291	119
Jharkhand	300	20-Oct	194	106
Punjab	361	20-Mar	263	98
Odisha	308	21-Oct	207	101
Gujarat	310	20-Oct	224	86
Bihar	279	20-Oct	194	85
Himachal Pradesh	275	20-Apr	198	77
Telangana	306	20-Apr	237	69
Assam	282	20-Jun	213	69
Chhattisgarh	257	20-Oct	190	67
Tamil Nadu	322	20-Apr	256	66
Andhra Pradesh	292	20-Oct	237	55
West Bengal	260	21-Jan	204	56
Haryana	358	20-Jan	309	49
Uttarakhand	245	19-Sep	201	44
Maharashtra	276	20-Jul	238	38
Madhya Pradesh	228	20-Oct	190	38
Jammu & Kashmir	225	17-Oct	204	21
Rajasthan	225	20-Aug	220	5
Uttar Pradesh	201	20-May	201	0

Source: Compiled by the author from the state labour departments' latest notifications and in discussion with state labour officials.

Note: (1) In *Kerala*, no inflationary adjustment of agricultural wages (₹ 410 per day) has taken place since May 2017. In fact, in the state minimum wages are not linked to any price index for any scheduled employment. Further, latest wages in comparable schedule employments such as unskilled forestry (₹ 659 per day w.e.f. August 2019) or different types of the plantation (₹ 304 per day in tea/coffee to ₹ 384 per day in rubber w.e.f January 2020) are either too high or low to consider as a proxy for agricultural wages; (2) In *Jammu and Kashmir*, unskilled labourer minimum wages are applied to the agricultural labourers. No inflationary adjustment of unskilled wages has taken place since October 2017; (3) In *Gujarat*, no inflationary adjustment

of agricultural wages (₹ 178 per day) has taken place since September 19 2016, unlike other minimum wage rates. Therefore, latest unskilled labourer minimum wage rate for rural areas is taken as a proxy for agricultural wages; (4) In *Tamil Nadu*, no basic revision and inflationary adjustment of agricultural wages (₹ 146 per day) have taken place since January 30, 2015 (unlike other minimum wage rates). Therefore, latest plantation labourer minimum wage rate (₹ 322 per day) is taken as a proxy for agricultural wages; (5) In *Uttar Pradesh*, the basic agricultural minimum wage rates gets revised in every two years, but wages are not linked to a price index (unlike other minimum wage rates); therefore latest agricultural minimum wages (₹ 201 per day) are low compared to other similarly placed states; (6) In Uttarakhand, the revision of basic agricultural wages was last undertaken in July 2015, and the five-yearly revision which is due with effect from June 2020 has not been undertaken yet. Hence, agricultural wage rates (₹ 245 per day) are low compared to similarly placed states.

Appendix Table 2: MGNREGS notified Wage Rates (in ₹ per day) from Financial Year 2006/07 to 2020-21

S. No.	Name of State	2006-07	2007-08	2009-10	2010-11 & 2011-12	2012	2013	2015	2016	2017	2018	2019	2020
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Andhra Pradesh	80	80	100	121	137	169	180	194	197	205	211	237
2	Arunachal Pradesh	55-57	65-67	80	118	124	155	167	172	177	177	192	205
3	Assam	66	76.35	100	130	136	167	179	182	183	189	193	213
4	Bihar	68	77	100	120	122	158	162	167	168	168	171	194
5	Chhattisgarh	62.63	62.63	100	122	132	157	159	167	172	174	176	190
6	Goa	-	-	110	138	158	195	208	229	240	254	254	280
7	Gujarat	50	50	100	124	134	167	178	188	192	194	199	224
8	Haryana	99.21	135	141.02	179	191	236	251	259	277	281	284	309
9	Himachal Pradesh	75	75	100	120-150	126-157	154-193	162-203	170-213	179-224	186	185-231	198-248
10	Jammu and Kashmir	70	70	100	121	131	157	164	173	179	186	189	204
11	Jharkhand	-	-	99	120	122	158	162	167	168	168	171	194
12	Karnataka	69	74	100	125	155	191	204	224	236	249	249	275
13	Kerala	125	125	125	150	164	212	229	240	258	271	271	291
14	Madhya Pradesh	63	85	100	122	132	157	159	167	172	174	176	190
15	Maharashtra	47	66-72	100	127	145	168	181	192	201	203	206	238
16	Manipur	72.4	81.4	81.4	126	144	175	190	197	204	209	219	238
17	Meghalaya	70	70	100	117	128	153	163	169	175	181	187	203
18	Mizoram	91	91	110	129	136	170	183	188	194	194	211	225
19	Nagaland	66	100	100	118	124	155	167	172	177	177	192	205
20	Odisha	55	70	90	125	126	164	174	174	176	182	188	207
21	Punjab	93-105	93-105	100-105	153	166	200	210	218	233	240	241	263
22	Rajasthan	73	73	100	119	133	163	173	181	192	192	199	220
23	Sikkim	85	85	100	118	124	155	167	172	177	177	192	205
24	Tamil Nadu	80	80	100	119	132	167	183	203	205	224	229	256
25	Telangana	-	-	-	-	-	-	180	194	197	205	211	237
26	Tripura	60	60	100	118	124	155	167	172	177	177	192	205
27	Uttar Pradesh	58	58	100	120	125	156	161	174	175	175	182	201

S. No.	Name of State	2006-07	2007-08	2009-10	2010-11 & 2011-12	2012	2013	2015	2016	2017	2018	2019	2020
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
28	Uttarakhand	73	73	100	120	125	156	161	174	175	175	182	201
29	West Bengal	69.4	69.4	100	130	136	169	174	176	180	191	191	204

Source: Compiled by the authors. Wage Rates from 2006/07 to 2010-11 were taken from Table 1.1 (page 7) as given in MGNREGA Sameeksha https://nrega.nic.in/Circular_Archive/archive/MGNREGA_SAMEEKSHA.pdf) and for the remaining years from the Gazette notifications (http://www.mgnrega.nic.in.)

Note: (1) For 2006-7 and 2007-08, wages under MGNREGS were as per the agricultural labourers' wages fixed under the MWA, 1948; (2) From 1.1.2009 MGNREGS wages were moved from Section 6 (2) to Section 6 (1) of the Act; (3) From 1.1.2011 MGNREGS wage rate was linked with Consumer Price Index for Agriculture Labour (CPI-AL); (4) in the table, in the case of two wages, the wages are for different areas within the state, for example, non-scheduled areas with lower wages and schedule areas with higher wages; (5) Union Territories have not been included; (6) From 2012 onwards MGNREGS wage rates are with effect from April 1 of every financial year.

Appendix Table 3: Regions of India drawn based on a Composite Index for National Minimum Wages for Regions

Region 1	Region 2	Region 3	Region 4	Region 5
Odisha Assam Bihar Jharkhand Madhya Pradesh Uttar Pradesh West Bengal	Andhra Pradesh Telengana Chhattisgarh Rajasthan Jammu & Kash-mir Uttarakhand	Gujarat Karnataka Kerala Maharashtra Tamil Nadu	Delhi Haryana Himachal Pradesh Punjab Goa	Arunachal Pradesh Manipur Meghalaya Nagaland Mizoram Tripura Sikkim

Source: Report of the Expert Committee on Determining the Methodology for Fixing the National Minimum Wage (GOI 2019a).

Labour & Development, Vol. 27, No. 2, December 2020

NON-FARM EMPLOYMENT AND RURAL-WELFARE IN INDIA: EVIDENCE FROM THE NSSO UNIT-LEVEL DATA IN THE POST-LIBERALIZATION PERIOD

Padmeswar Doley*

In the post-liberalization period, the rural non-farm sector (RNFS) has shown considerable growth with employment share tilted heavily towards the tertiary sector and away from the agricultural sector. The present study has been undertaken to re-examine the structure of growth and development patterns that caused gross informality in the RNFS employment in India; and examine if informality impacted rural poverty and inequality and improved rural-welfare. Based on the unit-level National Sample Survey (NSS) data on employment and unemployment (EUS) and the Periodic Labour Force Survey (PLFS) rounds, namely, 50th, 55th, 61st, 66th, 68th, PLFS-(2017-18) and PLFS-(2018-19), despite joblessness in India during the post-reform period, the proportion of workers with regular wages or salaried class has risen. Like-wise the proportions of workers as casual-workers and self-employed in the farm and the non-farm sector also have recorded gains in their respective share in the total employment. However, a diagnostic analysis of the employment types suggests that job-participation occurred predominantly in the informal sector. The All India Debt and Investment Survey (AIDIS) Data, three rounds (namely, 48th, 59th, 70th), this paper investigated whether the rising RNFS employment participation significantly contributed to the inequality reduction and found that the inter-quintile and inter-cast inequality has risen. Examining for an association in the RNFS participation and rural poverty reduction, using the Tendulkar-Committee estimates, this study found no evidence of any association whatsoever while discounting for the rising expenditure allocation on Rural Welfare-Programs. Therefore, the paper concludes that distress-driven participation in the rural non-farm sector cannot raise rural-welfare and living standards.

Keywords: *RNFS, Sectoral-Shares, Employment-Participation, Informality, Rural-Wages, Inequality, Poverty, Rural-Welfare.*

1. INTRODUCTION

The relentless spate of market-oriented reforms initiated in India since 1991, to a great extent, has impacted socio-economic conditions, including those in the rural regions. Noticeable changes had occurred in the people's lifestyles and aspirations, perhaps, a fallout of globalization and the contagion-effect of modern lifestyles in the advanced capitalist nations. Growing ambitions for modern-lifestyle have affected attitudinal changes in rural societies, reflected in a massive number of workers entering non-farm sector occupations and outside the traditional jobs[1]

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[1] The lure of the modern life-style aspirations has also resulted in a tremendous change in the attitudes of the farmers in the country and did prompt them to switch over to modern farming methods that require relatively a low labor to capital ratio per unit of farm output produced.

linked to the farm sector (Lanjouw, 2007; Abraham, 2011). The rising share of employment is heavily skewed in favor of the unorganized sector and stands at over 94 percent of India's total workforce. The downside of having this burgeoning informal sector workforce is extremely low labor-productivity and meager returns for labor (Mehrotra et al., 2014). Poor labor-productivity is an outcome of a complex interplay between several factors ranging from lack of skills due to low-quality educational accesses[2], the absence of a universal and affordable healthcare system, lack of access to safe drinking water and sanitation, inaccessibly of banking resources, and other essential public amenities[3]. The informal sector enterprise worker, compelled to work in two or more occupations simultaneously in India, may perform an own-farming job and some non-farm job or execute two or more low paying non-farm sector jobs simultaneously. So, the developing economy's labor markets are segmented and have critically affected occupational choices and non-farm sector wages (Otsuka and Yamano, 2008).

This study aims to re-examine the structure of growth and development patterns that caused gross informality in the non-farm sector employment growth in rural India; and, examine whether this informality could reduce rural poverty and inequality and eventually improved India's rural-welfare.

The paper is divided into seven main sections. Section two is a brief review of the literature. Section three provides a description of various Data Sources and the Research Methodology. Section four highlights the growth of RNFS employment and the informal economy. Section five provides an analysis on the reduction of inequality over the period between 1993-94 and 2012-2013 vis-a-vis the RNFS employment in India. Section six presents a discussion on poverty alleviation during the period between 1993-94 and 2011-2012. Section seven concludes the discussion and provides the important Policy Implications.

2. A BRIEF REVIEW OF THE LITERATURE

The RNFS includes those activities connected to all the non-farming activities. These activities are highly heterogeneous and fall within the domain of both organized and unorganized economic activities. Therefore, production activities involve a wide range of techniques starting from rudimentary/lesser sophisticated techniques to highly modern/sophisticated ones. According to Chadha (1993), the sector consists of all-encompassing economic activities other than the direct on-farm sector activities. Dasgupta et al. (2004) provide the value added to a product as a criterion to distinguish a rural non-farm activity from that of agricultural activity, even though the product results from an on-farm action. Jha (2006) considered within the folds of the rural non-farm sector - all non-farm activities of varying size from own-account enterprise to that of factories undertaken in the villages

[2] The skill deficits in India is a consequence of non-accessibility to a quality educational system that fails to match with the skill requirement that is often demanded by the fast-changing nature of jobs in the job market.

[3] Ibid.

and rural towns. Unni (1991) and Abraham (2011) viewed the RNFS activities as all those activities pursued in the rural regions except those in agriculture and its allied sector.

Evidence from the developing countries suggests that an individual's entry decision could be an outcome of an interplay of pull factors and push factors. Whereas in the case of a developed country, evidence from research studies indicates that - the entry into the non-farm sector occupation is more of an outcome of active 'pull-factors' in operation. Here, the individual's decisions to venture into the non-farm profession ostensibly reflect his choice for wealth or income maximization, from among several other occupations. It portends the mainstream view that the start-up of self-employment is an act that best represents the choice of an individual who seeks to maximize return, given his risk-taking and entrepreneurial ability (Lucas, 1978).

Unni (1998) disaggregated the type of non-farm activity based on low-productivity and high-productivity enterprise; and wage/salaried and self-employed workers. Because the factors that facilitate or retards the non-farm sector's growth influence both the segments differently, the study asserts that the regional studies must be carried out in conjunction with this categorization. Moreover, the study emphasizes the need for micro-level (household/individual level) studies to assess RNFS employment impact on poverty and inequality. Lanjouw and Shariff (2004) have argued that the direct contribution of the non-farm sector to poverty reduction may be muted when the Poor lack assets. Several studies argue that the RNFS employment growth was instrumental in reducing poverty during the post-reform period in India. Foster and Rosenzweig (2004) stressed the RNFS jobs as the primary driver of rural income that was certainly pro-poor. Himanshu et al. (2013) documented a slow process of the RNFS diversification that yielded declining poverty and enhanced income mobility among the society's poorest segments. The study utilizing village-level data from a field survey conducted in Palanpur, Uttar Pradesh, shows a significant increase in income inequality, thereby threatening the village society's fabric, which could eventually undermine the pro-poor impacts from the gains from RNFS employment diversification.

3. DATA SOURCES AND RESEARCH METHODS

The sources of data for this study are the NSSO unit-level data from the Employment-Unemployment Situation (EUS), (namely, 50th, 55th, 61st, 66th, and 68th rounds); Periodic Labour Force Survey (PLFS) – 2017-18 and 2018-19, and three All-India Debt and Investment Survey (AIDIS) Rounds (namely, 48th, 59th, and 70th). The 'Tendulkar Committee Report on poverty in India', constituted by then Planning Commission of India (PCI), is utilized to evaluate the records on the poverty alleviation front. The AIDIS data is used to calculate the Asset Gini-Coefficients estimated for the quintile households and for the various Caste-groups.

However, the study has some major limitations. Mainly, it stems from the discontinuity of the NSSO quinquennial surveys on EUS after 2011-12. Although, data for the concerned variables are obtained from the PLFS, comparability issues with the EUS data remains impending (Jatav and Jajoria, 2020). Further, the Ministry of Statistics and Program Implementation (MOSPI) is also yet to release the AIDS data after 2012-13, and Consumer Expenditure Survey (CES) quinquennial round data since 2011-12. Due to this limitation of data estimation of asset-inequality beyond 2012-13 is not available for the analysis. Similarly, the measure of poverty and consumption inequality rates beyond 2011-12 is not available for the study.

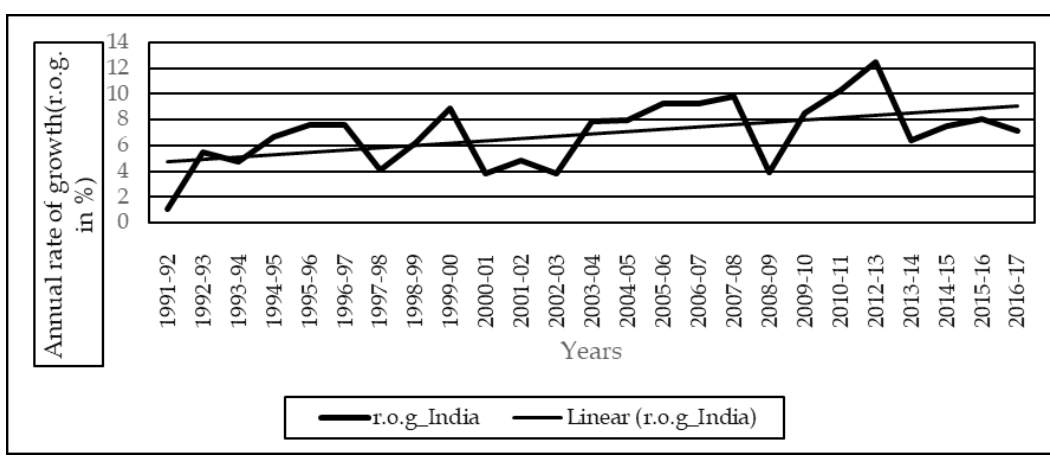
4. THE GROWTH OF RNFE AND THE INFORMAL ECONOMY IN INDIA

4.1 Economic Growth since the 1990s

Indian economy experienced an unprecedented high rate of economic growth for over two and a half decades. As shown in figure 1, although this high growth experience wasn't a smooth one, a linear trend line fit shows that it was sufficient to bring about significant structural transformations throughout post-liberalization. Empirical studies show that India's near double-digit growth failed to translate into a rapid rise in employment opportunities across the spectrum of broad economic sectors and sub-sectors (Bhattacharya and Shaktivel, 2003; Chadha et al., 2002; Mukherjee, 2014).

Figure 1

Annual Growth Rates of NNPfc in India (2004-05 Prices)



Source: Data obtained and computed from https://www.rbi.org.in

4.2 The Pattern of Rural Employment in India over the period 1993-94 and 2017-18

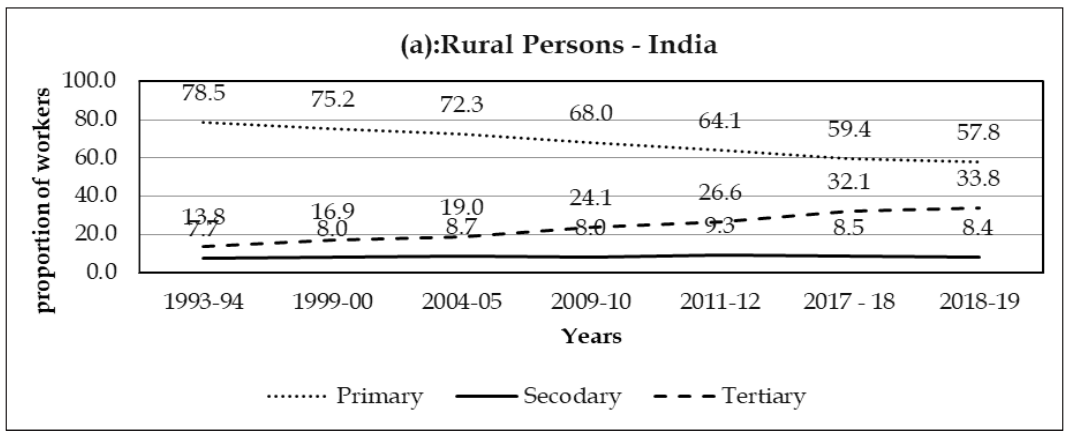
Despite India witnessing an unprecedented rate of high economic growth for a protracted period, the Indian economy remained virtually jobless. This section is devoted to analyzing the workforce's broad sectoral distribution and examining

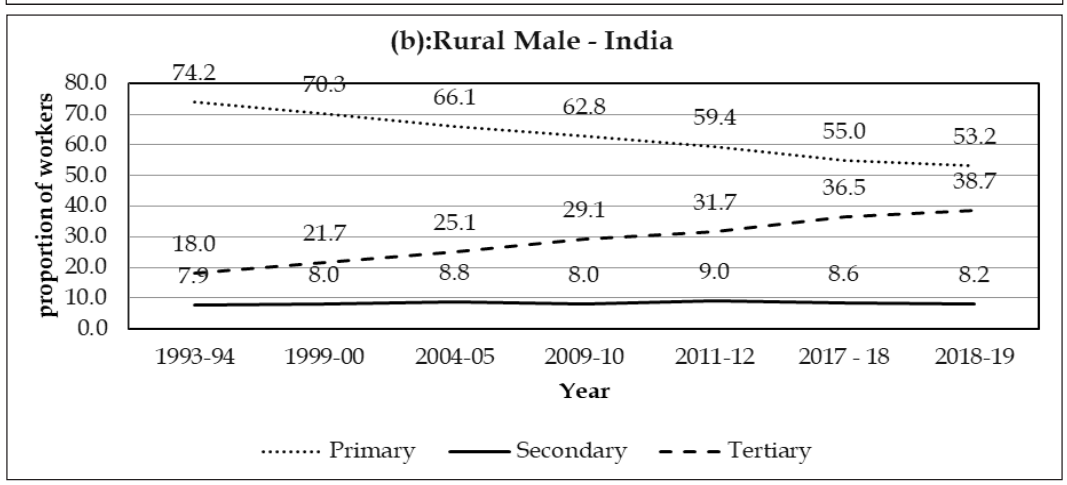
the evolving employment patterns in the rural regions. From a high of over 78.4 percent in 1993-94, the proportion of rural workers employed in the agricultural sector declined steadily to just over 57.8 percent by 2018-19 (Figure 2*)*. What is more noteworthy is that the decrease in female workers' has remained very marginal compared to the proportion decline for the male workers engaged in agricultural activities. The fact that rural women's participation in the farm sector continues to remain disproportionately high highlights the feminization of farming activities in rural India over the past couple of decades. The genesis of this feminization of the farm sector is the outmigration of the male workers towards the non-farm sector jobs in urban areas. "*Instead, women's growing participation in agriculture appears to be strongly related to several indicators of poverty. Women's growing labor share in agriculture in rural areas has added to the already heavy work burdens for most rural women - a process of feminizing agrarian distress in rural India* (Itishree Pattnaik et al., 2018)." Instead, there is an urgent need to feminize a fairly productive RNFS through a policy to ensure sustainable rural non-farm income growth.

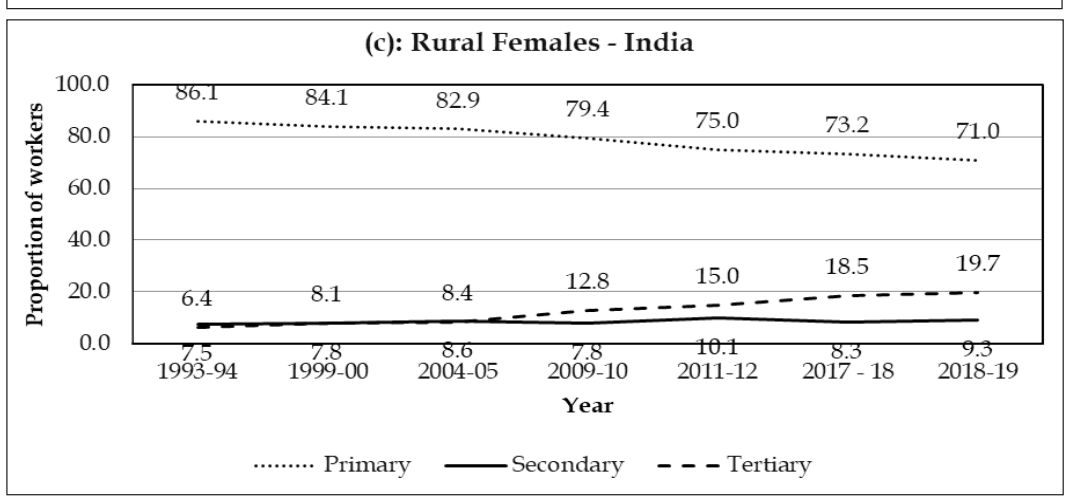
However, the shift towards the RNFS activities did not favor the manufacturing activities (Figure-2). The panel diagrams show virtual stagnancy in the proportion of workers in the secondary sector from 1993-94 to 2018-19. Researchers have termed it a downside phenomenon that reflects rural distress that is not always conducive to progress (Majumder, 2014). The lack of skills and technical knowledge is one of the main reasons that acts as a barrier for rural workers to enter the manufacturing sector. The deficiencies of skills and technical education are more acute among female workers. (Chand et al., 2015). Unarguably, India's policies need more focus on building and providing accessible educational systems that impart skills and requisite training to the rural youths for readying them for skill-intensive manufacturing jobs. Also, there is a need to promote rural industries through credit facilities and building commensurate infrastructures.

Another noteworthy fact in the recent rural employment patterns is the increasing employment share accounted for by the tertiary sector (Figure 2). The ratio of workers employed in the tertiary sector increased from 13.8 percent in 1993-94 to 33.8 percent in 2018-19. However, the participation of workers in the tertiary industry was highly biased in favor of males than the female workforce. While the ratio of rural male workers in the tertiary sector rose from 18 percent in 1993-94 to 38.7 percent by 2018-19, the same increase for rural female workers stood at 6.36 percent in 1993-94, 19.7 percent in 2018-19. The growth of employment in the services sector grew relatively faster only after 2004-05 onwards. And the decomposition of the services sector jobs suggests that those that somewhat offer decent and comfortable jobs constituted a very meager share of the total jobs created in the tertiary sector during this study (Table 1). Construction activities are the most dominating rural tertiary labor force. The wholesale and the retail trade, including repair services for motor-vehicles accounted for the bulk of the total service employment share. Other sub-sectors such as financial services, hotels, restaurants, education, transport, and communications services gained weight in the rural areas' employment share only in the very recent past.

Figure 2
The Distribution of the Workforce across Sectors (UPSS) - Rural India (in percent)







Source: Authors' calculations using unit-level data (UPSS) from various surveys of NSSO on EUS and PLFS (2017-18; 2018-19).

Table 1
Sectoral and Sub-Sector Distribution of the Workforce (UPSS) in Percentages in Rural India

Rural India							
Sub-Sector wise	*1993-1994*	*1999-2000*	*2004-2005*	*2009-2010*	*2011-2012*	*2017 - 2018*	*2018-2019*
Agriculture hunting and forestry	78.0	74.9	71.9	67.6	63.8	59.1	57.5
Fishing	0.4	*0.3*	0.3	0.4	0.3	0.3	0.3
Primary	*78.5*	*75.2*	*72.3*	*68.0*	*64.1*	*59.4*	*57.8*
Mining_ quarrying	0.6	0.5	0.5	0.6	0.5	0.4	0.4
Manufacturing	7.0	7.3	8.0	7.2	8.7	7.8	7.8
Electricity gas and water supply	0.2	0.2	0.2	0.2	0.2	0.3	0.2
Secondary	*7.7*	8.0	*8.7*	*8.0*	*9.3*	*8.5*	*8.4*
Construction	2.3	*3.3*	4.9	9.4	11.1	12.3	13.0
Wholesale, retail trade and repair	4.4	4.6	5.5	5.7	6.0	6.9	7.5
Hotels and restaurants	0.5	0.6	0.7	0.8	0.9	1.2	1.2
Transport, storage and communications	1.4	2.1	2.5	2.9	3.0	3.9	4.0
Financial intermediation	0.2	0.2	0.2	0.3	0.3	0.5	0.4
Real estate renting and business activities	0.1	0.2	0.2	0.3	0.5	1.1	1.0
Public administration, defence and social security	1.2	1.2	0.8	1.0	0.8	1.0	1.1
Education	1.1	1.3	1.6	1.7	2.1	2.9	3.0
Health and social work	0.3	0.3	0.4	0.4	0.5	0.7	0.7
Other community, social and personal services	2.1	3.0	1.7	1.3	1.3	1.3	1.5
Activities of private households, employers of undifferentiated production activities	0.2	0.1	0.4	0.4	0.3	0.5	0.5
Tertiary	*13.8*	16.9	*19.0*	*24.1*	*26.6*	*32.1*	*33.8*
Non-Farm	**21.6**	**24.8**	**27.7**	**32.1**	**35.9**	**40.6**	**42.2**

Source: Authors' calculations using unit-level data (UPSS) from various surveys of NSSO on EUS and PLFS (2017-18; 2018-19).

4.2.1 The Distribution of Rural Households by Broad Occupational Categories

The proportions of Self-employed households in the agricultural sector have remained the primary form of employment over the past three decades in rural India (Table - 2). While the proportion of casual-labor work in agriculture had fallen very significantly over the period since 1993-94 and 2018-19, that of self-

employed in the rural non-farm sector and casual-labor in the non-agricultural sector shows a significant gain. Research studies specific to India have found that the wage earnings of casual labor in non-farm activities to be higher than in agricultural activities. The regular non-farm workers earn 2.5 times more likely than the farming workers (Mukhopadhyay et al., 2008). A significant proportion of the self-employed in the rural non-farm sector has a mixed occupational activity, indicating that these activities are the best options to supplement the households' farm-income. Those who pursue self-employment as an exclusive occupation mostly operate their activities for extended hours and tend to self-exploit[4].

In this context, self-employment growth isn't a desirable feature, but at best, be termed as a ubiquitous bug inherent to India's rural labor market. Indeed, it is a bitter rural labor market reality that the poor can't afford to remain unemployed for long and, in the end, chooses to venture as self-employed in the non-farm sector. The truth is that the sprawling self-employment sector in rural locations has not been the solution to self-sufficiency and India's poverty eradication (Sabharwal and Chakraborty, 2017). The farm sector indeed needs a decongestion policy wherein far fewer people should perform farming jobs to get to the objective of doubling farmers' income in real terms. There is an urgent need to move agriculture away from politics. The growth of non-farm employment and its share in the GDP growth is critical to solving the farming livelihoods challenge, but at the same time, we cannot ignore farming itself. After all, these two ideas are not an either-or proposition. The impending challenge that lies ahead is that the country fundamentally needs to design planned and practical pathways to employ the millions of rural poor outside the farm sector. If it fails to do so, it just not only means a failure of the human development front but also represents a political if not a social powder keg (Tongia, 2019). The underemployed and disaffected youth could pose a national security threat, becoming fodder for radicalization, a life of crime, or worse[5].

NSSO started providing separate data for the regular wage or salaried class from the 68th round onwards. Notwithstanding, the available data for these categories of workers in rural India shows a rise in 2018-19 PLFS; it still accounts for a deficient proportion of India's rural workforce at a mere 13 percent of the total workforce. The fact that rural India is faced with a lack of adequately educated and skilled workers continues to stagnate the workforce mobility towards the better paying regular wage or salaried employment. Under such conditions, the rural labor sticks to occupations in agriculture or move towards casual work occupations in the non-farm sector instead of salaried jobs with higher wages and benefits (Mukhopadhyay et al., 2008). Given the acute shortages in rural India's technical human resource base, rural firms have little incentive to invest in technology,

[4] Russian economist Alexander Chayanov made the self-exploitation case to Jawaharlal Nehru for the viability of small firms that comes from not having to pay yourself or your family market wages (Sabharwal and Chakraborty, July 17, 2017).

[5] Ibid.

leading to low labor productivity levels in the rural manufacturing sector compared to urban manufacturing (Chadha, 2003). The same is true of the service sector, which can expand given the strong urban economic base. Higher investment to improve both the quality and access to education (primary, secondary, and above) needs to be a priority for policymakers (Mukhopadhyay et al., 2008).

Table 2

Percentage Distribution of Households by Broad Occupational Status

Rural India							
Household Types	1993-94	1999-00	2004-05	2009-10	2011-12	2017-18	2018-19
Self-employed in Agriculture	43.2	38.3	41.7	37.4	39.8	44.6	43.0
Self-employed in Non-Agriculture	11.6	12.7	15.3	15.0	15.4	14.5	15.4
Regular Wage or Salary	-	-	-	-	9.2	13.0	14.1
Casual-labour in Agriculture	31.0	33.7	26.9	27.1	21.6	13.6	13.0
Casual-labour in Non-Agriculture	7.5	7.3	10.5	14.5	13.5	13.0	13.7
Others	6.6	7.9	5.6	6.0	0.5	1.3	1.0
Total	100	100	100	100	100	100	100

Source: Authors' computation from the unit-level EUS quinquennial survey and PLFS (2017-18) rounds.

*Note: Regular wage or salaried employees appears separately only for 2011-12 and 2017-18. Therefore, it is assumed that this form of employment was subsumed under the head – Others.

4.2.2 Types of Enterprises and Their Size Distribution

The types of enterprise growth give us a fair idea about their performances. Positive performances entail swelling in the number of formal sector enterprises. Evidence from existing literature suggests that a good business climate favors enterprises' growth through incentives that catalyze more investment and higher productivity (Dethier et al., 2010). Availability of infrastructural facilities, financial access, safety and security, market competition, and regulatory variables significantly influence enterprises' performances and their growth[6]. However, the rural micro- and small enterprises that account for a more significant share of gross job creation and destruction have a weaker correlation between firm productivity and firm size (Li and Martin, 2015). There is far greater dispersion of the rural firm-level productivity than what the conventional wisdom suggests[7].

Studies for the post-reform period underpin the fact that the Indian economy witnessed a jobless growth through leaf-frogging into the high-productivity

[6] Ibid.

[7] Ibid.

regime based on high capital intensity production, unlike other fast-growing economies in East Asia (Tejani, 2016). Undoubtedly, a spate of liberal reforms since the early 1990s resulted in a robust business climate wherein high productivity gains among conventional enterprises contributed to unprecedented scaling up of the GDP figures. However, in the case of the rural economy, total employment growth in the Govt./Public Sector/Public/Private Ltd. Companies, Co-Operative societies/trust/other non-profit institutions increased from a shallow base of just around 13.6 percent in 1993-94 to mere 18.1 percent of the total rural workforce by 2018-19 (Table 3). Meanwhile, the proportion of employment in the country's rural informal sector enterprises has fallen from over 86.4 percent to just 82 percent of the total rural workers. It implies that India's unprecedented economic growth rates over two and a half-decade virtually failed to create formal sector employment.

Table 3
Percentage Distribution of Workers by Enterprise Types in Rural India (UPSS)

Enterprise type	2004-05	2009-10	2011-12	2017-18	2018-19
A. Proprietary Male	*69.6*	53.9	66.8	64.8	65.6
B. Proprietary Female	8.8	12.3	6.4	7.3	8.6
C. Partnership with members from the same households	1.8	1.6	1.5	0.7	0.5
D. Partnership with members from different households	1.4	1.4	1.1	0.6	0.8
E. Employer's household's	1.3	0.8	0.8	1.0	1.0
F. Others	*3.6*	8.2	7.1	7.8	5.4
(Sum: A to F)	*86.4*	*78.2*	*83.6*	*82.3*	*81.9*
G. Govt./Public Sector	9.3	19.0	11.1	12.0	12.1
H. Public/Private Ltd. Company	3.2	2.0	4.4	4.7	5.0
I. Co-Operative societies/trust/other non-profit institutions	1.0	0.7	0.9	0.9	1.0
(Sum: G to I)	*13.6*	*21.8*	*16.4*	*17.6*	*18.1*

Source: Authors' computation from the unit-level EUS quinquennial survey and PLFS- 2017-18 and PLFS-2018-19 rounds[8].

A classification of rural enterprise types based on the workforce-size shows an overbearing presence of the enterprises with less than six workers (Table 4). The proportion of enterprises with less than six workers constitute about 65.5 percent in 2018-19. Other than the enterprise type with 'Less than Six,' all enterprise types based on their workforce size made some consistent gains from 2004-05 until 2011-12. However, a trend reversal in these enterprise types occurred in India's rural

[8] For the PLFS (2017-18) there are separate availability of data on enterprise type for the Usual Principal Status (UPS) as well as the Usual Subsidiary Status (USS) Workers. We have considered the enterprise type provided for the UPS workers and computed the Usual Status workers.

areas between 2011-12 and 2018-19. The proportion of enterprises employing less than six workers declined from 74.54 percent in 2004-05 to 58.5 percent in 2011-12. It reverted to 65.5 percent in 2018-19; thus, indicating the immense churning across the rural microenterprise landscape.

Several factors have fundamentally caused this trend reversal, particularly in rural areas. First, the ripple-effects of the US-led economic-crises-2008 seeped into the Indian economy, consequently disrupting the phase of high economic growth since the year 2012-13. The GDP growth figures plummeted from a high of over 8 percent per annum to below 5 percent for the next couple of years. Second, a change of guard at the Central Government in India in 2014 brought some extraordinary reform measures with the declared aim to reposition the Indian economy back as the fastest growing economy in the world. Just about there were signs of economic revival from 2015-16 onwards; the announcement of the demonetization in November 2016 brought with it extreme liquidity deficiencies across the country on an unimaginable scale. The rural economy reeled under a severe cash crunch. Simultaneously, the impact got translated into massive destruction of jobs across enterprises that employed workers in the categories from 'Six and above' onwards. Perhaps, those who lost their jobs switched over to the survivalists' enterprise employing less than six' workers, implied by the rise in their percentage from 58.5 percent in 2011-12 to 65.5 percent in 2018-19. Third, the Goods and Service Tax (GST) introduced subsequently in July 2017 also had its adverse impact on the Indian economy, primarily the other micro-and small enterprises. These policy-induced shocks had undoubtedly vitiated the previously attained robust business climate. They had a terrible toll on productivity and investment across enterprises all over the country, albeit with some regional and state-level variations.

Table 4
Percentage Distribution of Workers by Enterprise-size in Rural India, 2004-05 to 2018-19 (UPSS)

Rural India					
Number of Workers	**2004-05**	**2009-10**	**2011-12**	**2017-18***	**2018-19***
Less than Six	74.94	61.52	58.5	62.71	65.56
Six and above but less than Ten	6.34	8.09	9.89	11.23	12.62
Ten and above but less than Twenty	4.33	4.91	7.15	6.45	5.93
20 and above	7.08	13.59	17.19	10.68	11.12
not known	7.31	11.89	7.27	8.94	4.77

Source: Authors' computation from the unit-level EUS quinquennial survey rounds and *PLFS-2017-18 and *PLFS-2018-19.

From the above analysis, it emerges that well over 80 percent of India's rural enterprises are in the informal sector folds. Moreover, there is an overbearing presence of enterprises that is pretty tiny and are survivalists by instinct. The sustained phases of the high economic growth of the Indian economy for over two and half decades had enabled the growth and expansion of the rural enterprises. It is not that everything was hunky-dory before the policy-induced shocks kicked-in. As a fallout of a sustained phase of high economic growth, the rural enterprises did show signs of limited yet significant growth and expansion in terms of the worker absorption capacity. However, successively induced policy-shocks had a disastrous impact on the overall enterprises' productivity and investment, reversed whatever limited gains made earlier, and adversely affected India's rural livelihood conditions. A noticeable concentration of rural workers reappeared in enterprises with 'less than six workers' following adverse shocks.

4.3 Job-quality in Rural India between 2004-05 and 2018-19

The fact that India's employment growth virtually stagnated during the post-reform period, yet accompanied by a reversal of the declining trend in the organized sector employment, has perplexed many in the policy circles and academia (Papola, 2013). This period oversaw a significant increase in both the 'regular' worker category and workers' real earnings[9]. Given this fact, a substantial part of the rise in the non-farm job participation rate since 2004-05 was distress-driven and occurred in low-quality employment in rural India. Four aspects of job-conditions are considered in this study (Table 5).

First, the proportion of workers with formal written job-contracts is counted as an indicator for assessing the given job-quality in rural enterprises. It serves as an essential instrument against the employer's arbitrary decisions on firing the worker until the contract expires. Typically, a vast majority of the informal sector workers usually do not have provisions for signing written-contracts at the time of their joining. In rural India, the proportion of workers without formal written-contracts increased from 81 percent in 2004-05 to about 84.7 percent by 2018-19, implying deterioration in the job conditions and further intensification in informal sector activities over the years. Second, the entitlements for provisions such as paid leaves to the workers is a potent indicator, in that it sheds light on the quality of the jobs in the rural enterprises. Paid-leaves determine the workers' job well-being and work-productivity, generally extended to those employed in the formal sector. The proportion of workers without paid leave entitlements for rural India had fallen until 2011-12 and then marginally had risen in 2018-19. However, about 80 percent aren't eligible for paid leaves, implying that employment mainly in the informal sector with no reliable signs of improvement in job quality. Here, one may also account for the changes in the methods used in the various survey rounds. Third, the worker's access to a social security system is another indicator of the enterprises' job-quality nature. Lack of access to the social security provisions

[9] ibid.

implies that the worker has been left open to the world of prevailing risks faced under uncertainties. These uncertainties emanate from the frequent and extreme input/output market volatilities. The proportion of workers without receiving any known forms of social security protection has consistently had risen to 94.7 percent by 2011-12 before it declined to 73.8 percent by 2018-19. Finally, the proportion of rural workers who neither have had written job-contracts nor eligible for paid leave or access to social security benefits in India stood at 95 percent in 2004-05, 88.1 percent in 2011-12. It then had risen to over 93.5 percent by 2018-19.

Table 5

Distribution of Workers (UPS) by Job-characteristics in Rural India

Job-Conditions of the Workers	Rural India				
	2004-05	2009-10	2011-12	2017-18	2018-19
Without written job-contract	81.0	83.5	89.2	85.0	84.7
Not eligible for paid-leave	75.7	80.5	99.6	79.1	79.2
Without any Social Security Benefit	79.9	83.1	94.7	70.2	73.8
Not eligible for paid leave, Without written job-contract and any Social Security Benefit	95.0	94.2	88.1	95.9	93.5

Source: Authors' computation from the unit-level NEUS quinquennial survey and PLFS (2017-18) rounds.

Therefore, from the analysis, it emerges that the quality of jobs in India's rural non-farm sector hasn't shown any signs of improvement. Instead, the four indicators' figures throws-up signs of substantial deterioration. Given this fact, we next analyze whether these low-quality jobs in the RNFS have had a significant effect or dent in India's rural poverty and inequality.

5. THE ROLE OF THE RNFS IN INEQUALITY AND POVERTY REDUCTION IN INDIA

This section examines whether the rural non-farm sector had improved the rural poor's welfare by focusing on the distributional aspects and well-being effects of RNFS employment in India's rural households. The non-farm employment activities' disaggregation, in one of the earlier sections, indeed help us for a better understanding of the relationship between non-farm employment and rural welfare. Despite the phase of virtually jobless-growth during the post-reform period, India recorded a significant increase in the regular salaried category in the organized sector and a massive rise in distressed participation in the petty activity sector. It is noteworthy that employment participation in minor activities is low-return and tends to lower income inequality among participant households.

On the other hand, regular salaried employment growth represents the high-return non-farm activities that have a disequalizing effect on household income distribution. 'Whether the gap between those who work in the formal versus the informal sector

has increased or not?'. A closer examination was done by decomposing the rural households into quintile-classes and based on their caste-identity. Table 6 - Panel A shows that Intra-quintile inequality hasn't increased much. Although the Inter-quintile inequality shows some marginal rise, the asset-inequality remained at elevated levels (Gini-Coefficient over .65). Table 7 - Panel B indicates that Intra-Caste asset-inequality across the social spectrum has risen significantly over the years in rural India. The computed Gini-Coefficient values suggest a very high asset-inequality and have been increasing instead of a decline. Therefore, from the analysis, rural non-farm sector employment growth dominantly within the informal sector fold in rural India was followed-up by rising asset-inequality.

Table 6
Gini-Coefficients Calculated for Quintile-Groups

Assets including Land	**Rural India**		
Quintiles	1992-93	2002-03	2012-13
Q1	0.336934	0.342	0.338
Q2	0.147911	0.127	0.129
Q3	0.110688	0.110	0.108
Q4	0.120673	0.122	0.120
Q5	0.380606	0.389	0.450
Total	0.640272	0.642	0.676

Table 7
Gini-Coefficients Calculated for Social-Groups

Assets including Land	**Rural India**		
Social Groups	1992-93	2002-03	2012-13
ST	0.545	0.594	0.637
SC	0.592	0.566	0.641
OBC	0.592	0.605	0.668
Gen	NA	0.637	0.734
Total	0.640	0.642	0.676

Source: Authors Computation from the NSSO Unit-level Data (All India Debt-Investment Survey, 48th, 59th & 70th Rounds).

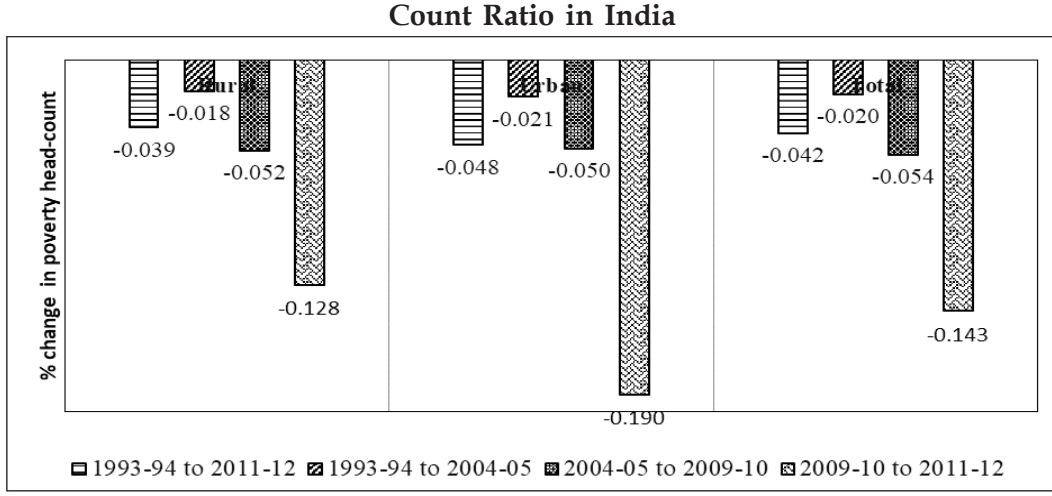
While the ability to engage in high-return non-farm activities is associated with higher economic well-being, on the other hand, lower-income households tend to rely on low-return activities that do not significantly contribute to improved well-being. The net-effect of greater rural non-farm participation on the level of well-being, measured here in terms of fall in the poverty headcount ratio, depends on several other factors. *Figure 3* shows the compound annual growth rate in India's poverty-head count ratio between 1993-94 to 2011-12. The bar-diagrams show a very different India scenario in which the poverty headcount ratio has declined over the said period. Between 1993-94 to 2004-05, the headcount ratio's decline was relatively very gradual, gaining some significant momentum over the later period

until 2011-12. Himanshu et al. (2016) argue that the poverty rate declined very sharply in India since 2004-05 because the rural non-farm sector benefitted mostly from the greater fund allocation by the Central and State governments through welfare-programs as the NREGA[10] and the expansion of the Public Distribution System (PDS) etc. It means that the employment growth in the rural non-farm sector during that period was mostly in disguised form, and the rural non-farm enterprises (RNFEs) in business were survivalist types.

Thus, the RNFS expansion and employment growth contribution in enhancing rural-welfare depends on whether that has occurred in the formal high-return activities or the informal low-return ones, controlling for the government-run welfare-programs. As already observed earlier, RNFS employment growth mainly happened in the informal segment of the rural labor market. Because the real wage rates for the casual workers have failed to rise over the period relatively as those in the organized sector, rural-inequality has increased, whereas the poverty reduction occurred very gradually. There is no direct evidence of an association between decline in the rural poverty headcount and rural non-farm participation if we discount welfare-programs' impact on the poverty headcount.

Figure 3

Compound Annual Rate of Growth in the Poverty-head Count Ratio in India



Source: Computed from data made available by the Planning Commission of India.

[10] A sizable proportion of the real-wage for the unskilled and/or the semi-skilled workers did not get passed on to the worker by the officials of implementing agency due to corrupt practices and other undesirable practices such as large-scale fudging of MNREGA wage rolls, late wage payments etc. In fact, this may have rendered the program ineffective in terms of reducing poverty and the gaps in the standards of living between the affluent class and the poor in Assam. Dreeze (2009) expressed anguish over the rampant corrupt practices while implementing the MNREGA program and suggested that the potentials of the MNREGA have been wasted in the states such as Orissa, Jharkhand, Assam etc.

6. CONCLUSION AND POLICY IMPLICATIONS

This paper's analysis provides some interesting incites mainly at the backdrop of the ongoing pandemic-induced shock to the economy. The implication is that the rural informal economy was perennially ailing even when the Indian economy experienced unprecedented growth rates. Participation in the rural informal sector non-farm employment reflects a distress-driven one instead of an informed occupational choice. Perhaps, it is the primary reason why despite an impressive show on the front of economic growth that spanned over two and a half decades, India failed to reduce inequality and poverty rates as impressively as other similarly footed emerging economies. Whatever significant decline in India's rural poverty headcount happened between 2004-05 to 2011-12, public programs such as the MNREGA were the main factors instead of employment expansion in the RNFS (Himanshu, 2011). Notably, it was during this period that the rural wages in India had risen significantly.

It means that any attempt to squeeze the size of the spending on public welfare programs by the Govt. of India, possibly, could result in aggravation of inequality and existing poverty rates or undoing of the progress made until now. Therefore, public policy designs must stress strategizing short-term and long-term goals to effectively transform the dominant rural informal sector enterprises into formal ones. The short and medium-term goals must consider ways to boost rural credit access from the institutional sources and extend training and other skill-enhancement facilitations. Recently, the Indian rural economy has experienced a spate of economic shocks, policy-induced as well as external pandemic induced shocks. And, the rural economy is reeling under immense distress. Past experiences suggest that if the rural economy has to evolve out of these economic shocks, a massive pump-priming is an immediate relief-measure. The idea is to reverse the fall in real wages in rural areas. The resource allocation processes must focus on the impartment of skill-based education, health, sanitization, etc., to realize long-term productivity gains with spin-offs. The long-term goals must include investments via ramping up public spending drastically on health, education, clean drinking water, sanitation, etc., in the rural areas. Given that more than 65 percent of the population lives in the villages, this is relevant from the social justice viewpoint.

India's environment-friendly development pathways need effective ways to decongest people and economic activities into rural areas. It is possible only if the Govt. adopts swift and practical measures. Otherwise, increased rural non-farm sector employment in the informal sector shall continue to ail the economy's living standards and pollute conditions in rural India. Therefore, more efforts to transform the informal rural microenterprises into a vibrant and formal one requires a host of policy adoption and proper implementation. All these require political-will and vision.

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Labour & Development, Vol. 27, No. 2, December 2020

GLOBALIZATION, LABOUR AND TECHNOLOGY: A STUDY OF CALL CENTRE WORKFORCE[1]

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This paper engages with the relation between technology and labour in post globalization context within IT sector in India. It follows the trajectory of labour as well as technology in the changing environment and interrogates the notions of 'labour' and 'labourer' discursively, with changed forms of expertise and knowledge practices constituted in the IT sector. The plan of exposition is tripartite, a customary craft of labour research and assessment of elements that have divided and may link labour and technology research, followed by the significance of post-welfarist expertise and conclusion with an intended meaning and perceived outcome of such establishment.

Keywords: *Industry, Labour, Technology, Globalization, IT*

1. INTRODUCTION

This paper is an exploration occasioned by recent developments in the industrial sector with the onslaught of globalization in India. The call centre approach is representative of the withdrawal from fiscal policies of the welfarist economy towards building national economy. In contrast, development strategies of the IT sector tend to interlink the local IT service sector with the global networks to cultivate innovative practices that would contribute towards constituting new political-economic affairs. This paper offers a qualitative analysis of the various ways of drifting people to recognize the importance of the notions of post-welfarist economy through forming associations with the global economy in terms of human resources, imparting training and skills, and service-providing. In doing so, it examines the renewed meaning of 'labour' and 'labourer'; and the various modes of 'expertise' and 'knowledge systems' which are the foundations for constituting labour forces in the global context.

2. LABOUR AND INDUSTRY: CONTOURS OF A DEBATE

Past research has shed much light on the notions of 'labour' and 'industry' and their relations in Indian society with regard to commitment, migration, rural-

[1] An earlier version of the draft was presented in SARAI, in the project "Mapping neighbourhood in Jamia", funded by SARAI.

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urban dichotomy, attitudinal and behavioural dimension of work, class formation, unionization, factory as system and so on (Becker, 1960; Singh, 2000; Basant and Rani, 2004; Jha, 2008; Ahsan and Pages, 2009; Dougherty, 2009; Sonar and Paliwal, 2018). In several other studies, scholars kept an eye towards a cooperative, labour-managed production for national development and the underlying modernization process whereby labourers have to adjust to the growing demands of nation-state (McMillin, 2006; Rose and Wright, 2005; Taylor, Mulvey, Hyman and Bain, 2002; Deery and Kinnie, 2004). It also led to a focus on collective bargaining, inter-union rivalries over jurisdiction, and intra-union battles over organizational structure, funds and power, rather than emphasizing on workplace relationships or the links between labourers and their social and political communities (See: Kinnie, Purcell and Hutchinson, 2000).

The old institutionalists regarded conflict as an occasional instrument to compromise. They do not consider conflict as an intimate component of labourers' experience within industry; because with regard to the production technology and its alteration, questions concerning management-union negotiation over implementation and changes in job categories drew their attention; shop-floor labour process and its power and authority clashes least drew their attention (See: Fineman, 2010). In cases where there are no unions, the institutionalists rarely ventured. Therefore, their work was linked only mechanically with the dynamics of industrialization and was thus confined spatially to regions of trade-union activism. Women and minority workers are conspicuously marginalized (Scholarios and Taylor, 2011). The other often overlooked line of investigation into labour relations and labour history was carried forward by issue-oriented scholars (Kinnie, Purcell and Hutchinson, 2000; Rubery, Carroll, Cooke, Grugulis and Earnshaw, 2004). Scholars exceedingly contributed to debates about sweatshops (George, 2005), women's work, especially domestic (Stanworth, 2000), industrial safety (Kapur, 2010), and unemployment (D'Cruz and Noronha, 2008). These scholars called for state legislation and regulation. The "labour policy" studies reached well beyond the union organizational confines into families and communities, into the world of women's labour (See: Nathan, Saripalle and Gurunathan, 2016), or towards the experience of unemployment. The labourers' world replaced trade union as the locus for inquiry. Consequently, theoretically vigorous and ideologically informed debate surged forth; new questions posed; and fresh perspectives articulated. Radicalism was rediscovered, which is unsurprising in a decade of fundamental conflict in Indian society at large. Critiques of trade unions multiplied as the relation between labour and capital became increasingly viewed as fundamentally oppositional.

New sources are unveiled, as in other branches of Indian Sociology and History; "history from the bottom up" took hold in labour studies and explored the neo-Marxist formulations that gave this body of work a broad and challenging theoretical purchase on the experience of labour under capitalism (*See:* Mankekar and Gupta,

2016). Issues of purpose and audience are joined with questions of perspective and conceptualization, yielding an embarrassment of riches that triggered a contrast to the tightly focused sequencing of the old institutionalists' projects.

Was there an Indian working class? What was the context of that weighty term at various junctures in the nation's industrial history? Are not gender, caste, class, and ethnicity co-determinants of the course of Indian workers' relations with one another and with capital? And indeed, how does one bring the capitalist, the proprietor, the director and the shareholder into the picture, not to speak of the manager, in a corporate hierarchy? If technical change be considered a major theme within Indian labour history, how does one grapple with technology, notions of efficiency, innovation and altered social relations of production? The explosion of these concerns, a consequence of viewing labour in its full socio-economic and cultural context, fragmented the field.

On the contrary, the expansion of tertiary sector has reflected much more on how the practice of service delivery shapes the working conditions of labourers. Over the last couple of years or so, there has been a gradual increase in the amount of job offers as front-line service providers which is representative of the augmentation of managerial recognition to customer relations; also considered as a fundamental element of an organization (Flam, Hearn and Parkin, 2010). The role of management in this context seeks to manage the patterns of relationships between the customers and the service providers and control the quality of customer-employee interfaces. Accordingly, the performance of the employees, as desired by the organization and specified in the employment norms, is a derivative of the presentation of emotions in the customer-employee interactions (Hochschild, 1983; Gabriel, 2010).

Hochschild's three-conditional emotional labour plays a significant role in the organizational sphere. These three conditions include the interaction of employees (face to face or tele-calling) with clients or customers, creating a sense of emotionality in them, and emotional state guided by the rules and requirements of the organization (Hochschild, 1983). Given the three conditions of Hochschild, emotional labour signifies the way employees perform in the organizational set up; the performance can take two forms such as 'surface acting' and 'deep acting' (Hochschild, 1983). The former is borrowed from Goffman's (1959) dramaturgical perspective. Considering this perspective, the workers always tend to show some amount of emotion in their interactions with the people from outside (the clients or the customers). The employees are pushed to modify their existing feelings as per the demands and requirements of the industry; failure to do so may imply the dysfunctionality of emotional labour (Hochschild, 1983; Ashforth and Humphrey, 1993). Comparatively, deep acting provokes the employees to feel the emotion of the other. However, scholars argue that emotional labour may yield negative results given the fact that maintaining emotions will be psychologically strenuous for the employees. But this could be, scholars argue, moderated through role-

performance in the sense that role-playing is crucial to control and reduce the strains caused due to emotional labour (Ashforth and Humphrey, 1993). Thus emotional labour can more so be deemed as an observable behaviour (Grandey, 2000), which Ashforth and Humphrey (1993) call 'genuine acting'. The notions of 'genuine acting' are the expressions of appropriate emotions by employees, a concept which is missing in Hochschild's theorization of emotional labour.

But the relationship between emotion and theory of organization is a troubled one. Scholars argue that emotion is pre-social, irrational, cognitive and physiological (Fineman, 2000; Davidson, Ekman, Saron, Senulis and Frieson, 1990; Oatley and Johnson-Laird, 1987). Hence, emotion came to be perceived as a force to be excluded from the public sphere of social organizational life. Actions motivated by emotions are characterized in scientific management and human relations as irrational, unconscious, and corporeal. This simplistic and uni-dimensional perspective on emotion arose from a series of studies (*see:* Wentworth and Ryan, 1994; Fineman, 1995, 2000; Zerbe, Ashkanasy and Hartel, 2006; Küpers and Weibler, 2008). Nevertheless, those practicing management and the organization theorists alike have recognized the role of emotions and the 'emotional propensities' as a prerequisite for a successful customer-employee interaction. Scholars have stressed much on the impact of customer-employee interaction vis-à-vis the role that emotions play in an organizational life (Kemper, 1987; Jordan, Ashkanasy and Hartel, 2003; Burke and Stets, 2009; Leppänen, 2010; Von Scheve, 2012). Thus, while the initial approach concerning the conceptualization of emotional management emphasizes that emotions should be subject to an organization, however, the latter orientations to emotional 0management emphasized the reverse of it, that is, organizations subjected to emotionality (*see:* Hearn and Parkin, 2007, *also see:* Imdorf, 2010). Yet, what these various managerial approaches share in common is emotion as the antithesis of reason.

While the earlier studies on organizations have tended to make distinctions between the ordered, controlled and abstract, they have also tended to make distinctions between the disordered, uncontrolled and concrete. The analysis of one of the votaries of modern organization, Max Weber, builds his analysis of the geist of capitalism by excluding emotions from the organizational life (Weber, 1968[1921]). The formal rationality of capitalism has no space for human feelings and sentiments. Indeed, a rational organization of labour can be distinguished from a traditional mode of organization, at least in part, on the basis of a disciplined (unemotional) labour force. The rationalization of social life as the trajectory of Western history and the exclusion of emotionality from work organizations gave bureaucracy, in large part, its advantage over other modes of organization (*ibid.*).

Similarly, Lipset and Bendix (1959) argued that instrumentality in social relations must be understood as an asset conducive to mobility. Thus, while the persuasion of rationality over emotions marginalizes the latter, bureaucracy however

propagates that these two aspects, that is rationality and emotions, are important for an efficient organizational life and thus are inseparable (Putnam and Mumby, 1993).

Early studies on the patterns of relationship among people laid much emphasis on the informal social factors as a deviation from the those that the scientific management deemed important organizational traits (*see: Taylor, 1911*), however what is analogous to these two approaches is that both share a common model concerning the role of management vis-à-vis emotionality (Fineman, 1996). Management training was considered a vehicle for bearing about ways to control emotional factors considered counter-productive for the organization. If the organizational exclusion of emotion is the strategy we could associate most strongly with the ideal type of Weberian bureaucracy and with early advocates of scientific management, then a strategy of inclusion is perhaps the approach located most firmly within more contemporary studies on the management of organizational personnel.

Both the new style approaches and the early advocates have much in common about human relations. Both these approaches emphasize that the organizational stability may be envisaged at the cost of the sparkles of flexibility, originality and creativity that emotions are seen to ignite (Isen and Baron, 1991; Baumeler, 2010). The emerging innovative solutions are deemed to be foreclosed in a more traditional approach to organization that prioritizes rationality over emotion. As Fineman (1994) has put it, what early scientific approaches to management and the exclusion of irrationality from the parameters of organizational life seem to share with later approaches to the management of emotion as a human resource is a restricted, restrained and even mechanical understanding, or emotion as an attribute or an object, to be manipulated and managed, is subjected to rationality.

The neo-liberalization of labour markets escalated competition, meritocracy, flexibility and individuality (Standing, 2011) and is thus the causal factor of the rising precarization in labour markets. Workers in the IT sector often associate their jobs with peculiar employment conditions often characterized by part-time or temporary, seasonal, temporary contract through agencies or the ones with pre-determined period of employment (Vosko, Zukewich and Cranford, 2003). The obscurity to identify what attributes determine precarious labour exclude these employment conditions. Scholars argue that while certain conditions may be precarious for some, they may be constructive for others. Wage flexibility is one condition which quite often is negotiated in line with market demands. One of the drawbacks in labour precarity in terms of its flexibility is the fact that there is no possibility of getting promoted or the possibility of hike in perks because of the short term insecure contract (Standing, 2011). But short term contract, when taken up by the employees voluntarily, ceases to be a condition for labour precarity. Similarly, part-time job or choosing a suitable time for serving in an industry can

be chosen voluntarily by the employee; it is a free choice. Also, precariousness is not prevalent among low or un-skilled employees, but it can be found among employees who are qualified, skilled and attached to various employment sectors (See: Häusermann, Kurer and Schwander, 2015).

But what constitutes labour precarity is a further point in focus. Precarious labour is not representative of the working class but a representative of the heterogeneous group with differing attributes in terms of education and occupation. The former upon entry into the industry secures his working condition, and acquires an institutional representation. The precarious group on the other hand "share a sense that their labour is instrumental (to live), opportunistic (taking what comes) and precarious (insecure)" (Standing, 2011: 14). And "to be precariatised is to be subject to pressures and experiences that lead to a precariat existence, of living in the present, without a secure identity or sense of development achieved through work and lifestyle" (Standing, 2011: 16).

The managers seek to combine the subjective and emotional aspirations of their workers with the strategic goals of the organization through ensuring that work itself is experienced as a meaningful and personally rewarding activity (*see:* Bornheim, 2010). It is no longer sufficient for managers to seek to secure instrumental compliance from their workers. Rather, they must aim at achieving cultures of experience; cultures in which each and every member of the organization would feel both respected as an individual, and yet personally fulfilled only as part of the team. Thus, a sense of autonomy has to be combined with team spirit based on shared goals and commitment to organizational success. To achieve this level of cultural homogeneity, managers would have to learn to move beyond their traditional and rationalistic concerns with the manipulation of objective factors such as production targets, staff turnover levels and input/output ratio and start to take seriously the realm of subjective experience of work organization (*see:* Neckel, 2005). The sense of 'we-feeling' through forming an organizational community or a family and even establishing the intimate relationships have become central to the managerial discourse thus defying the rationalized model of working life in an organization which comprises impersonal relations defined objectively between the employer and the employee. Technologies as well as the practices of the organization are considered as a major contribution to the newly established candidness (see: Terpe and Paierl, 2010). This makes it difficult for the employees to commit to the organization.

The pre-job attitude of employees towards the industry include the pre-conceived thoughts about the processes of socialization within an industry which are highly influenced by their own personal set of beliefs and past experiences concerning the expectations of the industry (See: Upadhya and Vasavi, 2006). Such attitudes are the commitment propensities which affect the employees' actual 'commitment developing process' post entry. Thus two forms of commitment propensities can

be traced from this – the normative propensity and the instrumental propensity. Normative propensities of commitment are the moral responsibilities of employees towards the industry, which employees develop prior to their engagement within the industry (Meyer and Allen, 1991). These moral obligations are the personal experiences that foster employees' actual commitment to the industry post entry. However scholars argue that 'motivation' primarily plays a significant role in developing commitment towards an industry (Wiener and Vardi, 1980) given the underlying intentions of employees' engagement, determined through economic pursuits, taking many forms such as add-on incentives and other rewards. This instrumental propensity implies the tendency of employees' commitment to industry with certain level of expectations in terms of rewards, compensations and other benefits. However, upon entry into the industry, employees start developing commitment on two fronts. One, which involves instrumental propensity within the industry, and two, the affective commitment based on the levels of interaction within the organization. The former is a dominant one among the two forms of commitment and entails employees' perception of the exchange between the industry and employees' substantial contribution towards it and the rewards thereof. After the employee adapts to the working culture and acquires a deeper understanding of the industry, (s)he develops a certain level of affective commitment, developed rather steadily (Munshi, 1977). Affective commitment is believed to encompass a profound emotional attachment and a sense of belonging to the industry. Thus a new pattern of organization is emerging in which, in contrast to the 'me' culture of the past decade, a more sensitive and caring approach to life would come to dominate.

3. SITUATING LABOUR IN INFOTECH INDUSTRY

During the last few years, one witnesses a steady rise of Infotech-enabled services industry in India. While most IT companies have shown their gradual exit from the scenario in terms of existing staff, shutting down their firms and companies, however it is interesting to note that the growth of business process outsourcing (BPO) and call centers are on the rise and provide new space for IT professionals in the country (Kapur, 2002). A call centre is one of the important places for customer-employee interaction where the former demands certain services and the latter delivers them, usually over telephone or computer automation. Call centres are substantially equipped with technology that enables listening to many customers simultaneously, screen them and transfer the calls to the expert personnel from the staff for possible solutions. Various organizations such as telemarketing, computer stores and other big organizations use call centres as an extension to deal with the customers in terms of selling goods and services. Of late, this sector has witnessed a steady rise in the movement of professionals from software as well as other sectors (See: Sengupta, Singh, Moses and Joseph, 2005). As a result, the recruitment pattern and the business are changing in this sector. Only fresh graduates and post graduates in various disciplines like information technology, hardware and

software and business administration professionals had a monopoly till yesterday. Today, it attracts students, migrants and mothers. The shift and growth in this sector, as one of the senior professionals in the field commented, 'is a move from recession hit industries to sunrise industry'. National Association of Software and Service Companies (NASSCOM) and Mckinsey in 2009 forecasted that this sector will generate annual revenue of $17 billion (about 85,000 crore) and employ one million people. This forecast may sound like a hyperbole however professionals inside the industry find it a conservative estimate. As Raman Roy, CEO of Spectramind observes, "NASSCOM estimates will be overcome and exceeded. For every one million direct jobs, 1.5 million indirect jobs will be created" (NASSCOM, 2011). An article in Times of India mentioned Frost and Sullivan report's claims that India, along with the Philippines, will emerge as the largest market for call centers in Asia-Pacific in the next five to seven years (Tandon, 2002).

The obvious reason for mushrooming of such centres in India is due to companies being pressurized in the US, UK and Canada to cut costs to improve their bottom lines and in the bargain outsourcing to India. Besides, companies abroad are looking for remote locations. For instance, UK's 3,500 call center employees fear to lose their jobs due to out-sourcing facilities offered to India for joint ventures (The Guardian, 9 March, 2001). As Luke Harding reports, "This apprehension is confirmed by a report [which] said that the Indian call centers were superior to their British counterparts in every way. They are cheaper - costing only 35-40% as much. They had better technological facilities. They had smarter staff" (*ibid.*).

As Raman Roy comments, "the biggest strengths are our educated, English speaking hardworking, intelligent people" (Tandon, 2002). Further, India seemingly has an "unlimited pool of English-speaking graduates, 25% of whom fail to find jobs. Indian graduates required starting salaries of only £2,500 as opposed to £12,500 in UK. They [are] IT literate, and highly motivated. The savings [are] enormous" (Luke Harding in The Guardian, March 9, 2001). Luke Harding also comments "India has so many [...] English speakers is clearly one of the nicer legacies of colonialism – so [the British] can hardly complain 50 year on that they are stealing jobs. Most of Spectramind's new recruits have been educated at English-oriented schools. They spend Friday nights watching [British programmes] on Star TV, India's most contemporary channel. But very few have actually visited UK" (*ibid.*). This statement has a patronizing overtone with the nostalgia of colonialist's fixed notion of the 'other'. The 'other' not only appropriated the language as a larger design of colonialism, however in the recent times, use it to transcend the barricades of 'colonised' self- perception and can compete with any English speaking country. A significant number of Indian middle class populations today are trained and educated in English medium; they can surpass the total population of Great Britain. This section is quite upwardly mobile who can adjust anywhere and in any part of the globe. As one of the workers of Spectramind reports, "I've always wanted to go to America. If not going there right now, I'll at least speak to them. At least,

some part of my dream is happening" (Kalita, 2001). While advocates of this sector visualize the future potential in terms of revenue-making, back office of the world, leading contact centre of the world and providing job opportunities (*see:* Agrawal and Goswami, 2010; *also see:* NASSCOM, 2009), the critiques highlight such sector as producing 'Cyber Coolies', lowest end of the value chain, call centre bubble and finally associate call centre as sweatshops for the under paid, under skilled and over worked workers (Ramesh, 2004; Sandhu, 2006; Taylor, Noronha, Scholarios and D'Cruz, 2008). Amidst conflicting opinions and reactions, this sector is growing day by day in terms of its business and recruitment of staff (Bansal, 2004; Nakkiran and Franklin, 2004; Seetha, 2006). The coming of global call centres demand fresh incisive outlook at the crossroads between culture, technology and network; this is reflected through the global organizational culture, low-cost employment and figurative excess of national wealth production that would set the foundations of work-culture and aid in the experience of the worker (*see:* Sarkar and Shailendra, 2003).

Most of the workers at the call centre are young and are highly qualified with a minimum qualification of graduation. There is almost equal representation of sex in the composition of work force and all of them belong to the middle and upper middle class strata of society. Most of them have schooling from public schools barring a few. Since fluency in English was a major consideration as well as requirement for the job, very few workers, who could not join the public school in their early years of education, compensated it by joining elite institutions in the latter part of their academic career. The work atmosphere in the industry is very pleasant and the workers look confident having good exposure in life which could be compared with youth of any part of the world.

An inquiry about the rationale of choosing a career in these organizations revealed interesting insights about the urban youth; most of them joined these organizations for 'good salary' and 'convenience'. Some of them reported that they wanted to make a career in the field of customer relations as this is the upcoming field in future. However, few of them reported the 'availability' factor. When asked to explain how convenient their job is, most of them tried to explain it in terms of the flexibility of office timings. One could choose any time one liked. Most of them preferred the evening shift i.e. from 5 pm to 1 pm so that the whole day was at their disposal. While inquiring what they do in the day time, most of them said that they utilize other time doing their own work. A further interrogation of the 'own work' revealed that they utilize time searching for better opportunities; but they also use this time in nurturing their social life and relax at home. Some of them mentioned about the fatigue, few more mentioned that they had not taken this job from a career point of view. Since it affected their socialization and interaction with friends and others; they are only in touch through emails and telephones during the work hours. Although it was extremely difficult to manage social life during work hours due to the work load, however they managed it with lot of caution and care,

blinding the team leaders or the group leaders. However, quite a few claimed that upon knowing about the phone calls during the working hours, the team leaders threatened and warned them to face the consequence. They do not miss movies or serials as these are shown during the office hours to enhance their American or British accents. Most of them said that with the educational qualifications they had, they could not draw a better salary in any other organization.

The ambience of the work environment was more informal and friendly. Mostly, colleagues working in the office belonged to the same age-group and sometimes from the same institution. The female workers found the environment very gender friendly. Some of the workers commented: "our workplace is just like college canteen; we don't call anybody 'Sir' here. The 'Sir' culture is over; we call the boss by first name. The culture here is more Americanized". When the workers are asked about 'American culture', nobody could explain; their reference point however was Hollywood movies. According to them, "the way people talk and behave in Hollywood movies basically reflected American culture". While asking them to distinguish between the "reel life" and "real life", most of them admitted that they had never visited USA, however they did not feel incompetent while transacting their business in day to day life with the Americans. Although they occasionally encounter abusive languages from the customers, however they remain polite, and control their emotions so that the customers do not get to know about their feelings/emotions. Some of the workers reported that initially they had lot of problems to adjust with such humiliations and could not control their emotions; their team leaders and group leaders pacified their anger and consoled them to handle such cases with utmost care. When the situation is out of control, the group leaders and team leaders become the victims of their emotional outbursts.

Most of the workers commuted 10-15 km every day to reach office with the help of vehicles provided by the organization. In fact, the organization provided a 'pick-n–drop' facility to the workers working for different shifts. The workers are grouped separately, each group having its team leader. They would often share their experiences about the team leader with other groups; they also share some interesting cases they encounter during the working hours and how they manage to handle them. This type of informal inter-group communication takes place while commuting to the office. However, members of one group would least likely interact with members of the other group while commuting to the office due to the difference in shifts of work and time. Normally, they do not discuss their personal matters with colleagues. While inquiring about the safety of the female workers to work in the night shift, most of the female workers claimed that there is heavy contingent of security personnel, always available in the office premises for safety and security reasons. While traveling in the night, a security man always escorts the cab provided for our pick-n-drop. The security man monitors and would track every cab; and in case of an accident, immediate help is provided. While workers find it safe to work in call centre however a few of the female workers claimed

that the night shift for them is a problem because of the family bonds, but that again differs from family to family. Also working during the night shifts (the odd hours for many workers) would result in fatigue and acidity due to the elongated working hours, some workers complained. Most of them reported that they did not get breaks, however they had to take permission for a break from their respective team leaders/group leaders.

Few female workers said that they prefer to work in the morning shift because their parents did not want them to be out till late and return back late night for two reasons: one that returning back in the night hours disturb their family members while they are already asleep; and secondly, the neighbours become extremely inquisitive about the nature of their job and late entry to the house. Most of the female workers find it difficult to get a good job nowadays. They do not consider the nature and time shifts of the job as a problem. What matters most to them was to get a suitable job. They had all praises for the job with provisions such as transport facilities, allowances for snacks, coffee, tea and meals during work hours.

One of the major grievances of workers was that they did not get leave during the work. They had to work for six days a week. In case of urgency, they had to adjust with other workers so that somebody else would do work for them. Once they are back, they had to work, in return, for the same employee. Normally, the organizations are very flexible in terms of work; however, they do not allow workers to go on leave. They had introduced roster system. The nature of job in the organizations was purely contractual. The worker was put into six-month probation. After three months of his/her job, he or she was served with a notice mentioning his/her loopholes and plus points. With the completion of six months, the worker was expected to improve; failure to do so would result in the suspension of the worker from the services. The recruitment process in the organization was quite fair. The candidates had to go through various levels for getting recruited in a company. The process starts with a written test where the candidates are required to respond to the questions about English grammar, logical reasoning and general awareness. After passing the written test, the qualified candidates are called for the second level of recruitment process and required to appear in the interview. Candidates who perform well in all the stages with confidence and efficiency are finally recruited. Some of the workers argued that 'logical reasoning is not required for such kind of job, however it has become a fashion in every entrance test to ask logical reasoning which has nothing to do with the job requirement'. Not all workers of the call centre had to undergo diction training. The workers are trained according to their job specifications and job profile.

Some of them are trained in British accents and others in American accents. Since the time zones for fielding and sending the calls are different for these different regions, the workers are divided into two groups and further sub-groupings are

made under different team leaders and group leaders. Accordingly, the workers are trained about geography, history, weather, language, people and culture of different regions. Most of the workers reported that 'training is a big fun out here; we get to see various films, soap operas, soccer tournaments, Channel-V, MTV and various other programmes pertaining to these countries'. Employers would organize quiz programmes, and competitions on call observation and the best call awards are given to workers accordingly. Besides such competitions, parties are organized, as each group had certain monthly budget. Invariably, weekends are chosen to organize such parties. The groups would also invite the manager of human relations, supervisors and managers to attend the parties. Occasionally, such parties would become a space for conflict as some of the workers had their unresolved grievances. The workers took this as an opportunity to release their tensions. However the senior managers, as reported by some of the workers, did not lose their emotions but would resolve the tension peacefully and dropped them at home if they are drunk in the party. Most of the workers reported that the overall ambience in the office was an informal set up.

4. HIERARCHY IN ACTION: MAINTAINING DIFFERENCES AND THE SURVEILLANCE

Hierarchy though is patently defined within the industry; management however does not acknowledge the prevailing hierarchy within the industry. It often gives an impression of non-hierarchical relationships existent within the industry. Despite such projections, manager enjoys the comforts of a room separate from the subordinates. PLs and GLs have parallel work-spaces adjacent to shop section. They are allocated spaces in such a strategic way that customers coming in or going out cannot see the screens of their computer; their computers are mostly placed close to the exit points. This is one way of monitoring the workforce by the managerial staff, though they always try to uphold the non-hierarchical charade. One of the prime reasons for maintaining non-hierarchical order is that both the management and the workers almost share similar social backgrounds. The managerial staff would always make attempts to show comradeship with the subordinate staff through gossips, comics or talks about the technical matters. Management however sometimes feel weary of such pretentions. Even the subordinates, in particular, do not subscribe to this two-way process of interaction – asserting superiority during working hours and maintaining non-hierarchy during recess hour. They even do not share the same table for food despite the time being fixed for both the categories. Other manifestations of the differences among management staff and subordinate staff include the provision for cars to the former. The subordinate staff would share a common vehicle for pick and drop, which is common among various call centres across the country. Also what distinguishes management from the workers is the dress code. Mostly workers come up in a casual costume, while as managerial staff would chose formal dress only. But they would carry their executive bags, food and water with them and get the perks for regular visits

to other countries for official purposes, recounted through the narratives about provisions for managerial staff.

In-spite of all this, supervisors worked hard to sustain their artificial care-giving nature towards the workers and in this pretext engage the workers into sorting out their private issues. Strategically, this enables the management to monitor the activities and behavior of subordinates. One of the fundamental outcomes of such a practice is to condense the possibility of excuses most often given by subordinates on personal grounds. Management, in effect, is persistently critical of the workers in times of crisis. They would instantly try to locate the cause of problem among the subordinates, the belief that workers are the cause of any problem in the organization. At the same time, there is hierarchy among workers also based on the knowledge and skills. The more the knowledge about the organization and the skills one may possess, higher is the order in the hierarchy. For instance, workers concerned with the info-searching role in the organization enjoy greater esteem from the managerial staff than the co-workers with a different role. Thus performance of the workers is the causal factor for establishing interpersonal relationships with the managerial staff. At the same time, employees who come from well-off families share a good rapport with the management.

Employees are also given grades based on experience and those who excel in their performances achieve higher grades and subsequently elevated to higher positions. Newly recruited employees and those with low performance track record are often positioned at the bottom in organizational hierarchy. This sort of recurring competition has become a norm at the workplace and a deciding factor to allot grades to the employees and the salary differences among them in the proportion of 1:4. Workers are provided with a set of sanctions; they could waive late fees; they could also settle bill disputes upto Rs. 100-150, however, if the bill dispute exceeds this amount, then the case is referred to higher officials. Even when the disputes are not settled by their higher officials, then the case was referred to the top administrators like Associated Vice-Presidents, Vice- Presidents and even CEO.

The managerial staff in association with the supervisors would organize meetings with the workers, usually in the early hours of the working shift. The idea to hold meetings in the early hours, as said by a supervisor, is to push workers to be punctual to the office. However it does also carry the notion that workers 'must be prepared' for any event, even if informed in short spans of time. Conversely, it could also serve as an advisory to the workers to document the outcome of meetings. The workers thus would turn up to the meetings with a notebook to pen down the proceedings of the meetings. Meetings generally are a sort of question-answer or brainstorming sessions held by the managerial staff to have an insight into the organization's daily state of affairs. New policies as framed in the meetings, which are of interest to the organizational growth, are declared obligatory.

On many occasions, meetings are organized by the managerial staff to debate about the crisis situations of the organization through seeking help from the workers. Workers are required to work for larger time durations than prescribed in the company's code book. On the financial front, certain benefits are also cut during critical times. Such situations pose newer challenges to the workers and they are obliged to accept them without counter arguments. This does not, per se, prohibit workers from expressing their opinions or viewpoints in the meetings however only in a restricted context. The very presence of the manager guides the talk of the workers in the meetings where they are debilitated to talk about certain specific things.

One of the key factors to eradicate the excuse-giving culture among workers is to impart communication skills to them. This is ensured through holding training sessions. Not all employees are invited to attend these training sessions except the ones with low communication skills. Having comprehensive knowledge about the production process is a determining factor and adds to the performance of workers. There was no scope for any potential excuse such as 'no idea about it' or even 'this is not my assigned role'. To ensure no such excuse is made by the workers, the managerial staff holds technical training sessions to the non-technical staff and vice-versa. Through providing technical and non-technical trainings to the respective staff, the management would convince the workers to look for loopholes in the processes of production. The workers were also encouraged to tackle with such problems by themselves. The responses coming from various sections of the organization sometimes would seem contradictory. For example, the management claimed that they never accuse workers of being anti-work except being little negligent; concurrently every worker is dedicated and loyal to the organization is a dispute. Employees are trained in management skills, and also psychological training, to internalize the organizational codes and disciplinary patterns, or identify the reasons for low production rate. The high productivity level was often anticipated as a perquisite for organizational subsistence and to achieve higher ranks in the global industry. Propagation with regard to the status of organization was a constant practice seen among the management to ensure high productivity rate. The common perception was that the more the production rate, higher will be the organizational status.

Following the end of the annual work, the company would prepare a report called 'annual assessment report'. This report comprises two sections – one, which is about the individual effective feedback and the other is about the meetings between the management and the workers. The former is composed of the feedback that workers give to each other, either individually or in groups, usually done anonymously through using computer. Workers are given a set of questions comprising various sections related to communication skills, cooperation, competition, performances, etc. Workers were asked to assign numbers on a scale of 1 – 10 for their co-workers, including GL and PL. The 'truth quotient' about the

responses of workers was maintained through informing them that the annual assessment report would exclude the individual effective feedback; however in practice the annual report would contain it, a fact known to the workers and so their responses were impartial. Sometimes, the workers give full points to their peers; in such instances, the management would ask them to fill in the form afresh. To avoid this, workers would categorize co-workers based on their relationships; so the closer and friendly ones would get good points than the rest. New-comers and unpopular co-workers unfortunately suffer in the process.

The second section of the report is composed of the proceedings of the meetings between supervisors/management staff and the workers. In this section, various aspects of the employee performances are scrutinized. Factors such as product quality, rate of productivity, audit and other responsibilities are used to map the overall achievements; grades are given accordingly in three-point scale, that is, below standard, up to the standard and above standard. Investigation and enquiries were made by the supervisors and other managerial staff in cases where a worker achieved the below standard grade. Not only this, those who achieved up to the standard grade were even questioned about not making it 'above the standard grad'; and those achieving 'above the standard' grade were not spared from being questioned by the managerial staff. The workers would defend their inefficiency through trivial explanations such as family problems, miscommunication, health issues, and so on. They would however not escape the allegations of the management, the common being lack of devotion. The workers were convinced by the supervisors/managerial staff that their defensive explanations are just a way to escape the responsibilities, the actual problem lies in their attitude. At the same time, the management would not put too much of pressure on the workers and so they would console them also for the losses of the organization through posing personal questions so as to maintain the comfort of the workers following the tempting aggressiveness that happened in the event. Various sections contained in the form include achievements, performance, regrets, goals as well as the forthcoming training sessions to redefine the overall standards. What differentiates second section of the assessment report from the first one is that workers had to grade their own performances. While there was an increase in the production per year, however the wages of the employees were not hiked. Coincidentally, during the meetings about productivity, workers were disguised as family members; during assessment, however, they were called 'non-performers', who always escape from their responsibilities.

The relationship among workers is very cordial and friendly. As some of the workers commented, 'the recruitment policy invariably is to catch a particular category of age group so that they think alike, do alike'. Since there are a lot of commonalities among them, they share a strong interpersonal relationship. However, not all the workers felt alike. A few of them reported that they made distinctions between office and friendship. Few of them mentioned that the colleagues could not be trusted;

also they do not feel comfortable to discuss personal matters with anyone. Very few workers reported that they shared their personal feelings with some of their colleagues as their relationship continued from the college days; and of late they had become colleagues. While assessing the overall scenario of the organization, one observed that the environmental set up in the office was presented as a 'family', where the chief of the organization was the patriarch and various sub-units are created within the family to establish strong in-group feelings. Further, small units are created under the label 'team leader' or 'group leader' to supervise day to day activities of the organization. One could hardly see primordial loyalty like this in such organizations. Some of the workers reported that "they start their work with a briefing by the team leaders and de-briefing or share experiences at the end of the day regarding the problems they encountered during the day's work. They ask for the solution from the respective team leaders. Though the team leaders would rarely solve their problems, however the workers would insist for a solution. In fact, most of these workers received such hostile customers who lost their anger very often. At times, the workers would get agitated and would lose their temper; this is probably because they lack proper communication skills about dealing with such customers. When they report such events to their team leaders or group leaders, they had no solution except informing them to control their anger. Some of the workers found it extremely monotonous and repetitive exercise. Since there was no other way out or avenue, they are forced to continue with such type of job. Finding a lucrative job for them would be an extremely difficult proposition. On the contrary, the workers with MBA, BCA or MCA backgrounds are forced to be there due to the slump in the market. Although there is resentment, the workers however did not dare to report to the employer fearing that they might lose the present job.

5. CONCLUSION

To conclude, we would like to recapitulate some of our findings. Broadly the present study can be highlighted at two levels: One, this study makes a modest attempt to contribute to the ongoing discussion on 'labour' and 'organization'. While discussing about organization, it explores the increased significance that has been placed on the theorization of organizations as cultural forms, and on ways in which management activity appears to have become increasingly geared towards the nurturing or prescriptive cultural identities among organizational workers. In doing so, we identify not only several specific ways of approaching this issue, but also provide a critical reading of the relationship between the emancipatory claims of such organizations and the ways in which these claims can be comprehended and put into practice.

Two, emotion is so intrinsic to the very process of organization that work organizations can best be understood as emotional arenas. Though the organizational emotions have since the past been acknowledged by scholars however emotional

labour within an organization has only recently started receiving critical attention. Emotions are central to the functioning of an organizational and moving stealthily as the vanguard of ideas within this field. Both the management experts as well as critical organizational theorists concede that emotions largely are unexplored features of individual behaviour within the organizational set up. In spite of these developments in the theory of organizations and nature of 'labour', the lessons from our study reveals that we are yet to reach an emotional or post emotional society. Further, the lesson from our study highlights that we are yet to transcend the dichotomy between mind and body. The heart is emphasized but with a caution from the mind.

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Labour & Development, Vol. 27, No. 2, December 2020

WHETHER TECHNOLOGY ORIENTATION MATTERS FOR SKILL-BIASED WAGE INEQUALITY?
Evidence from Indian Manufacturing under Globalisation

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A prominent strand of literature argues that income inequalities are aggravated due to an increase in the earning opportunities of skilled workers over unskilled workers due to increased technology. This study explores the role of technology orientation in the observed patterns of increasing wage inequality between skilled and unskilled workers. It distinguishes between domestic and imported technology in analysing the changing wage structure. The econometric analysis showed that technology intensity in general has a positive and significant effect on wage inequality in total manufacturing, high-tech and medium-tech industries. Further, results show that while domestic technology elements have a positive effect on wage inequality in total manufacturing and high-tech industries; imported technology is significant in low-tech industries. While imported capital goods are significantly affecting the demand for skilled workers in low tech industries, domestic capital goods are contributing for the rise in skill demand in total manufacturing and high-tech industries. Thus, the study infers that domestic technology in general has been biased towards skilled workers there by contributing to increase in their wages.

Keywords: *Skill-Biased Technology; Wage Inequality*
JEL Classification: J31

1. INTRODUCTION

In India inequalities have been widening particularly after the economic reforms, posing major challenge to inclusive growth (Deaton and Dreze, 2002; Sen and Himanshu, 2005; Sundaram and Tendulkar, 2003; Vakulabharanam, 2009). One strand of literature has observed that, there has been persistent rise in wage inequalities between skilled and unskilled workers in the manufacturing sector particularly after liberalisation (Berman et al. 2005; Ramaswamy, 2008 and Abraham, 2009). The phenomenon of increasing wage inequalities in the light of globalisation contradicts with the conventional neo-clssical trade theories of Hecksher-Ohlin. Nonetheless, the recent trade theories argue that, trade liberalisation leads to improved access to technology from developed countries, which leads to technology transfer from developed countries to the developing countries (Robbins, 1995, 1996; Mayer, 2000). The studies which have argued that increased technology at the work places in the light of globalisation has led to increased demand for skilled workers over unskilled workers, leading to increased

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wages of the former over the unskilled workers (Gorg and Strobl, 2002; Pavcnik, 2003; Meschi and Vivarelli, 2008).

It was argued that increased competition leads firms to engage in more technology intensive production (Thoenig and Verdier, 2003). In the absence of technological capabilities, developing countries would depend on technology imports from developed countries. Hence, globalisation leads to technology transfer from developed countries to developing countries (Coe and Helpman (1995). Accelerated transfer of production technology to developing countries becomes crucial as the technology in developed countries is proven to be skill-biased (Katz and Autor, 2000). Studies showed that globalisation has led to increased access to technology in developing countries, hence technology imports in developing have witnessed a rapid increase which in turn increased demand for skilled workers (Mayer, 2000; Pavcnik 2003; Meschi et al. 2008; Araújo et al. 2009, among others). The focus of these studies was to analyze trade induced technology transfer contributed to the changing employment composition. Then they show that the increase in the relative demand for skilled labour was mainly driven by the within-industry variation, supporting factor bias. While domestic capital plays a complementary role, imported technologies clearly act as a skill enhancing component of trade.

The available studies which analysed the wage inequality between skilled and unskilled workers in India's manufacturing did not explore the relative role of imported versus domestic technologies (Berman et al. 2005; Ramaswamy, 2008; Abraham, 2009, among others). However, Berman et al. (2005) and Ramaswamy (2008), using capital intensity as a measure of technology, argue that changing wage structure in favour of skilled workers over unskilled workers is due to the increased technological access during the liberalization period. Abraham (2009) finds that Information and Technology (IT) at workplaces had significant effect on shifting wages in favor of skilled workers. The only possible exception in this literature is a study by Banga (2005). Moreover, technology is used in various forms (embodied and disembodied) in the production process which is acquired both from internal and external sources. Therefore, this study tries to give a comprehensive picture of various elements of technology by analysing the relative role of imported versus domestic technology in explaining the wage inequality between skilled and unskilled workers.

The paper is organised in five sections. The second section provides a breif overview of literature on technological change and its impact on wage inequality and provides a framework for analysing technology. Section three discusses data used and method of aggregation. Section four provides the trends and patterns of employment and wages. Section five elaborates on econometric model, wherein hypotheses and variable construction followed by results have been discussed. The last section provides concluding remarks.

2. UNDERSTANDING TECHNOLOGY CHOICES: ANALYTICAL FRAMEWORK

From the various strands of literature on the issue of changing wage structure, it can be inferred that technology either imported or domestically produced is the main contributing factor. Studies examined this issue in various developing countries (see for instance, Hanson and Harrison, 1999; Pavcnik, 2003; Meschi et al. 2008) argued that imported technology is the significant factor, others argued that technological change in the form R&D significantly related to changing wage structure (see Doms et al. 1997; Machin and Van Reenen, 1998; Adams, 1999; among others).[1] However in order to examine the effect of technology, a broader understanding on the ways in which technology is produced and developed is essential. Therefore, a framework is developed to understand the modes in which a firm can acquire technology in order to analyse the impact of various elements of technology on changing wage structure.[2]

To elaborate on the modes of technology acquisition (Figure 1), two main ways can be specified they are *In-house development of technology* and *purchase of technology*. In-house development means Research and Development (R&D) for new product and process development, reverse engineering or absorbing and assimilating imported foreign technologies. Purchase of technology could be from domestic sources and foreign sources. Purchasing of technology from other countries is considered as technology imports. Further, purchase can be of two types one is purchase of embodied technology through investment in acquiring new vintages of machinery and equipments. The assumption here is that novel ideas are embedded in these new capital goods. Depending upon the source of location, the embodied mode can be further divided into procuring capital goods domestically or importing from overseas. Second is technology in disembodied form, which includes investment in acquiring technology in the form of licenses, patents, know-how, trademarks, designs, etc. This can be accessed either through collaboration with foreign firms, what is known as import of disembodied technology, or by purchasing from other domestic firms, which is called as domestic disembodied technology.

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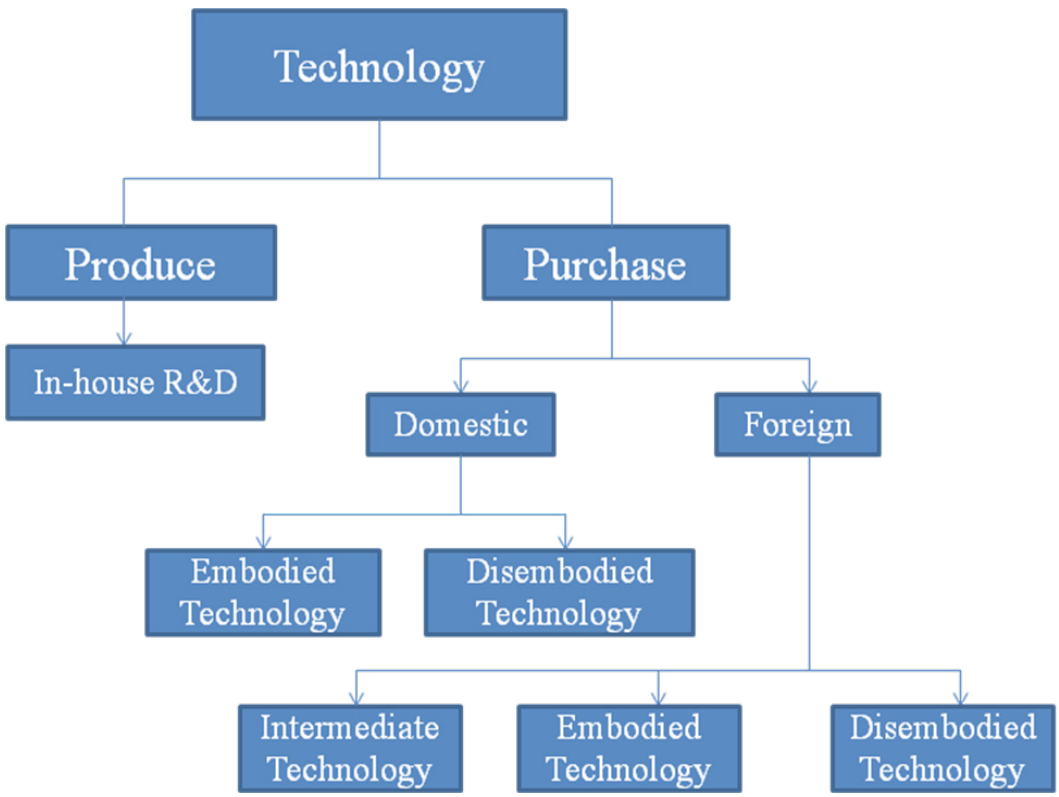
1 Scholars like Krueger (1993) and Autor et al. (1997, 2003) measure, computer intensity as a proxy for technological change.

2 However, there are other sources of technology as well, for instance, Foreign Direct Investment (FDI), Imported R&D. Nevertheless, the study examines the impact of domestic and imported technology on wages. Incorporating FDI leads to overlapping. Also, it should be noted that firm's access to technology is much broader, involves various other sources. However, this framework is developed only for analyzing the impact of technology on wages.

Figure 1
Modes of Technology Acquisition



Source: Own Compilation.

3. DATA AND METHOD

This study draws data from two main data sources, Annual survey of Industries (ASI) and PROWESS data published by the Centre for Monitoring Indian Economy. For this analysis, we have taken data on employment of skilled workers, unskilled workers and contract workers and wages of skilled and unskilled workers are taken from ASI. Other technology variables which includes both domestic and foreign technology such as Gross Fixed Assets, R&D expenditure, import of capital goods, expenditure on purchases of foreign technology (import of disembodied technology) and sales (which is proxy for value of output) are drawn from the Prowess database. The firm level data from Prowess is aggregated to three-digit level and concorded with NIC 2004. Since data is provided in nominal values, we have obtained Wholesale Price Index (WPI) data on manufacturing products from Reserve Bank of India and industry and matched with three-digit industries (NIC 2004) and deflated the values to the 1993-94 constant prices. To deflate, fixed capital and Import of capital goods, the WPI of plant and machinery which, is an indicator of capital being used. The nominal wages reported in the ASI is deflated

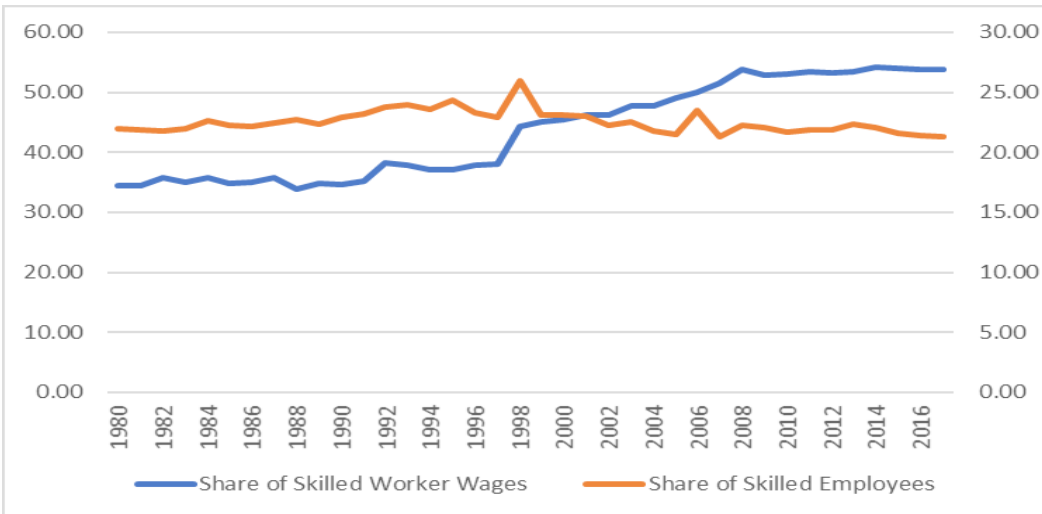
using the Consumer Price Index for Industrial Workers at 1993-94 constant prices provided by RBI for the respective years to arrive at real wages.

4. EMPLOYMENT, WAGES AND CHANGES IN TECHNOLOGY: TRENDS AND PATTERNS

The Figure 2 shows the share of employment and wages of non-production workers (skilled workers) in total employment and wages. The share of skilled workers in total employment shows no major change during 1980 to 2017. Its share increased marginally from 22 percent in 1980 to 24.3 per cent in 1995 followed a decline thereafter. The share declined to 21.3 percent in 2017 which is marginally lower than what was observed in 1980. On the other hand the share of skilled worker wages share in total wage billl shows an oppoite trend. Its more or less remained stagnant during the pre-liberalisation period at 35.17 percent to 35.92 percent during the 1980s. However, it increased significantly during the post-liberalisation period from 35.92 percent to 47.77 percent during 1990-91 to 2004-05 and it further inccreased to 53.84 by 2017-18. There is almost 20 percentage points increase in the share of skilled worker wages.

Figure 2

Share of Employment and Wages of Non-production Workers



Source: Own calculation from ASI, Various years.

We analyse the changing patterns of employment and wages of skilled workers at 2 digit industries and identify the industries which had undergone drastic changes after the reforms. In order to check for inter industry changes in the shares of employment and wages of skilled workers, we have taken three time points (1991-92, 2004-05 and 2017-18) during the liberalisation period. From Table 1, it can be understood that most of the industries followed the overall manufacturing trend i.e. decreasing share of skilled employment during the liberalisation period and increasing share of skilled wages in total wages. As already noted, there

is a significant rise in the share of wages of skilled workers across all the two-digit industries. It is apparent that the industries with relatively high skilled employment share have high skilled worker wage share. Among others, the computer machinery has the highest wage share of skilled workers of 92.61 percent with the highest skilled employment share of 45.02 followed by other industries like Radio, TV and Medical Instruments, Chemical and Printing Industries etc. has undergone significant rise in the share of wages of skilled workers and also the share constitutes more than seventy per cent in these industries. Along with these industries, printing, petroleum, chemical and transport industries showed over 20 percent increase in the wage share of skilled workers during 1991-92 to 2017-18. Given these trends, one can infer that the increasing wage inequality between skilled and unskilled workers is prevalent across all the manufacturing industries though some industries have experienced greater change.

Table 1
Industry wise Trends in Share of Skilled Employment and Wages

Industry	Share of Skilled Employment			Share of Skilled Wages		
	1991-92	2004-05	2017-18	1991-92	2004-05	2017-18
Food	23.55	21.36	22.51	35.78	44.24	50.07
Tobacco	5.22	4.96	4.38	11.67	21.76	29.15
Textile	14.79	14.86	14.61	20.20	32.80	38.41
Garment	17.51	13.90	14.09	31.80	37.58	40.32
Leather	19.57	15.53	15.09	28.94	35.81	42.14
Wood	23.82	24.91	24.11	27.03	41.51	48.23
Paper	22.64	22.47	20.88	32.95	42.34	50.26
Printing	28.86	38.88	36.17	37.23	63.75	66.70
Petroleum	26.54	24.44	22.58	36.84	45.62	60.73
Chemical	30.31	31.71	31.86	44.47	60.84	64.90
Rubber	28.03	24.87	21.32	39.02	47.89	51.08
Non- Metallic	20.76	19.42	17.64	32.36	44.38	48.46
Metals	25.73	25.30	21.09	36.63	45.51	47.89
Metal Pro	28.46	23.74	22.89	45.75	46.80	53.39
Machinery	33.79	31.93	28.34	40.72	56.05	63.63
Computing	48.17	41.42	49.41	62.38	74.13	92.61
Electrical Machinery	35.30	28.90	24.60	47.22	53.39	58.03

Industry	Share of Skilled Employment			Share of Skilled Wages		
	1991-92	2004-05	2017-18	1991-92	2004-05	2017-18
Radio, TV	37.72	32.94	25.47	50.56	66.02	66.58
Medical instruments	31.50	31.67	33.59	40.88	59.01	70.15
Motor vehicle	28.60	24.22	22.55	37.04	48.47	56.17
Transport	23.10	22.99	21.00	29.65	47.70	53.81
Furniture	22.71	21.76	19.99	29.69	39.73	45.54
Total	23.24	21.82	21.35	35.17	47.77	53.84

Source: Own calculation from ASI, Various years.

5. THE MODEL

From the analysis of trends and patterns, it has been observed that the phenomenon of increasing share of wages of skilled workers is prevalent in all the industries. Further, in order to understand the effect of each element of technology on the increasing share of wages of skilled workers, we carry out an econometric analysis.

5.1 Methodology for Econometric Model: A Cost Function Approach

This section is an empirical investigation of the elements of technology that are affecting the wage structure in the post-liberalisation period. In order to examine this empirically, the cost function approach is extensively used in the literature.[3] In this section, we bring out the technology factors (domestic and foreign) and its impact on raising demand for skilled workers using a cost function approach. The advantage of using cost function is that, in cost function, technology enters as a separate input and in which changes in technology over time have a non-neutral effect on labor inputs as classified by skill type. Following Pavcnik (2003), in this analysis we used restricted variable cost function as shown in equation one.

$$C = f(Ws, Wu, K, Y, T) \quad (1)$$

Where C is the restricted variable cost function, which we measure as total labor costs; W_s is the wage of non-production workers, which we measure as the share wages of skilled workers; W_u is the wage of production workers, which we measure as the share wages of unskilled workers in total wages; K is the stock of quasi-fixed plant and equipment; Y is value of output; and T is technology, which we assume is a function of time. Later, we separate out technology into domestic technology and foreign technology, further into elements of domestic and imported technology.

[3] The cost function approach is widely used to explain technology contribution in the changing demand for skilled workers (Berman, Bound, Griliches (1994), Feenstra and Hanson (1996, 1997), Doms et. al (1997), Machin and VanReenen (1998) among others)

$$\begin{aligned}\text{Log}TVC = {} & a_o + a_s \log w^s + a_u \log w^u + a_y \log Y + a_k \log K + a_t T \\ & + 0.5\{y_{su}(\log w^s)(\log w^u) + y_{ss}(\log w^s)^2 \\ & + y_{us}(\log w^u)(\log w^s) + y_{uu}(\log w^u)^2\} \\ & + 0.5\{y(\log Y)^2 + y_{kk}(\log K)^2 + y(T^2) + y_{ys}(\log Y)(\log w^s) \\ & + y(\log Y)(\log w^u) + y(\log K)(\log w^s) + y_{ku}(\log K)(\log w^u)\} \\ & + y_{ts} T(\log w^s) + y_{tu} T(w^u) + y_{yt}(Y)T + y_{kt}(\log K)T \end{aligned} \quad (2)$$

This framework differs from the general cost function specification because it assumes that capital and other technology measures *T* are fixed while skilled and unskilled labor are variable factors in the considered time period. Using cost minimization, cost share equations of variable inputs is obtained by partially differentiating (2) with respect to input prices.[4] After imposing homogeneity of degree one in prices to ensure that the cost function corresponds to some well-behaved production function, the wage bill share equation for skilled labor can be written as:

$$\text{Share}_s = \alpha + \beta_1 \log W_s/W_u + \beta_2 \log K/\log L + \beta_3 \log Y + \beta 4 \text{Tech} + \varepsilon \quad (3)$$

If β_2 is positive, implies capital-skill complementarity. B_3 represents scale effect of production. B_4 represents our coefficient of interest and captures the impact of different technology-related variables. In this context, 'technology' has to be interpreted in a wider sense; we will use different variables which are potentially channels of technological upgrading: besides the usual proxies of technological change such as R&D expenditures. The term ε represents unobserved component in the analysis.

Equation 4 estimates the impact of capital intensity, total technology intensity[5], output and contract intensity on the share of skilled workers. Moreover, in equation 4 we drop the endogenously determined relative wages since it is directly involved in the construction of dependent variable[6]. We instead include time dummies and industry dummies, which should capture the movements in the wage bill share due to supply shifts as well as other economy-wide mechanisms.[7]

$$SSW_{it} = \alpha + \beta_1 \log CI_{it} + \beta_2 \log TI_{it} + \beta_3 \log OUTPUT_{it} + \beta_4 \log CONTRACT_{it} + \Omega_{i+} \eta_t + \varepsilon_{it} \quad (4)$$

Similarly, leaving other variables same, we decompose technology into domestic technology and imported technology in Equation 5 to investigate which technology is actually augmenting skills. This exercise primarily focuses on the issue of skill enhancing trade to test it empirically.

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4 See Pavcnik (2003) for a clear discussion on the derivation of this equation.

5 See Table 2 for the construction of variables

6 See Berman et al. (1994) for discussion

7 This is the common solution adopted in most of the literature. For instance see Machin and Van Reneen (1998), Pavcnik (2003) and Berman *et al.* (2005)

$$SSW_{it} = \alpha + \beta_1 \log CI_{it} + \beta_2 \log ITI_{it} + \beta_3 \log DTI_{it} + \beta_4 \log OUTPUT_{it} + \beta_5 \log CONTRACT_{it} + \Omega_{i+} \eta_{t+} \varepsilon_{it} \quad (5)$$

Further, we dissect both imported and domestic technologies in order find out which element in domestic and imported technology is complementing skills (see Equation 6).

$$SSW_{it} = \alpha + \beta_1 \log CI_{it} + \beta_2 \log ICG_{it} + \beta_3 \log IDT_{it} + \beta_4 \log IIT_{it} + \beta_5 \log DCG_{it} + \beta_6 \log DDT_{it} + \beta_7 \log RDI_{it} + \beta_8 \log OUTPUT_{it} + \beta_9 \log CONTRACT_{it} + \Omega_i + \eta_{t+} \varepsilon_{it} \quad (6)$$

5.2 Hypothesis and Variable Construction

From descriptive analysis of trends and patterns, we have highlighted various technology indicators that might affect wages of skilled workers. So far, studies in the context liberalisation in developing countries revealed that trade induced technological change is found to be complementing the growing demand for skilled workers. Therefore, drawing from previous papers, this section discusses the variables having bearing on the demand for skilled workers for our econometric analysis.

Value of output

The demand for labour, like that of all other factors of production, is a derived demand which depends on the volume of final output being demanded from a firm and therefore being supplied by it (Kambhampati and Howell, 1998; Unni and Rani, 2004; Sen and Raj, 2008). Berman et al. (2005) and Ramaswamy (2008) used output as a proxy for scale effect on demand for skilled labour and they found that increase in output is positively correlated with the increase in relative share of skilled wages. In this model we hypothesize that output has a positive impact on increased wage share of skilled employees.

We use sales data provided by PROWESS as a proxy for output.

Capital Intensity

The relationship between physical capital and human capital is traced way back in 1960 by Griliches (1969) who established the hypothesis that increasing capital in the production substitutes unskilled labour with the skilled labour. The main logic of capital-skill complementarity[8] is that the growth in the stock of capital machinery increases marginal productivity of skilled labour and decreases marginal productivity of unskilled labour. In an empirical study by Krusell et al. (2000), while addressing the issue of rising skill premium, developed a simple framework, to evaluate the variation in skill premium due to changes in observed

[8] Technically speaking, capital-skill complementarity means the elasticity of substitution between capital equipment and unskilled labour is higher than that between skilled labour (see Griliches, 1969).

factor quantities. The results showed that changes in capital account for large proportion of changes in skill premium, which is more often, interpreted as skill-biased technological change. In an attempt to prove that the increasing demand for the skilled workers is in response to the new technologies, Goldin and Katz (1998) argued that capital-skill complementarities exited from a century ago and taking capital intensity as a proxy for technological change, found that there is a significant positive relation between an industry's capital–labour ratio in 1909 and 1919 and the educational level of its labour force in 1940. In Indian context, Berman et al. (2005) and Ramaswamy (2008) have presented the empirical evidence indicating capital skill complementarities and found that capital is significantly related to increasing wages of skilled labour. Therefore, a positive effect of capital intensity[9] is expected and is measured as

Capital Intensity = Real gross Fixed Assets/ Total Employment

Technological Change

As noted earlier, there has been a long debate on the factors associated with the changes in the wage structure of skilled and unskilled workers. However, there seems to a general consensus in the literature that technological change favours skilled workers, replaces tasks previously performed by the unskilled workers, and exacerbates inequality. However, the technological change is measured differently in various studies. Studies in the context of developed countries, technological change is measured as R&D and computer intensity while the studies in the developing countries measured technology as basically imported technology elements such as import of capital goods, import of disembodied technology etc. In the present study, we estimate the impact of technology by dividing technology into imported and domestic technology.

Imported Technology

Import of Embodied Technology

In a globalised economy it is expected that developing economies have better access to technology from the developed world through technology transfers, which promotes growth (Coe, Helpman and Hoffmaister, 1997). In this context, liberalisation leads to increase in access to foreign technologies that are embodied in capital equipment. This in turn leads to shift in the production function towards more skilled intensive technologies in the developing countries (Robbins, 1995, 1996, 2003;[10] Connor and Lunati, 1999). Similarly, analyzing the employment

[9] In the econometric model, we use a variable domestic capital which is value of gross fixed assets after subtracting import of capital goods to trace the impact of domestic technology. According to CMIE definition GFA includes imported capital goods. Here, we did not mention it a separate variable as it follows same analytical framework as capital intensity. We hypothesize that domestic capital is one of the important factors influencing skilled wages.

[10] See Robbins (1995) for a clear analysis on how trade liberalisation works as a channel for skill upgrading in developing countries. He termed this phenomenon as "skill enhancing trade hypothesis"

impact of technology transfers which is a result of globalisation, Acemoglu (1998) opines, the capital goods and technologies transferred through trade with OECD countries are likely to be more skill using than locally available ones, having been developed in an environment where skills (notably cognitive ones) are relatively abundant. Gorg and Strobl's paper (2002) for Ghana and Meschi et al. (2008) for Turkey found empirical evidence that purchase of foreign technology in the form of machinery had significantly raised demand for skilled labour. Similarly, Conte and Vivarelli (2007) and Meschi and Vivarelli (2009) have also analysed the impact of imported capital goods on the demand for skilled workers in low and middle income countries. All these empirical studies suggest that imported skill-biased technological change is one of the key determinants of the increase in relative demand for skilled workers in the developing countries. Therefore, in our study also expects a positive correlation.

Import of Embodied Technology = Import of capital goods/Sales

Import of Disembodied Technology

Following the technology transfer framework in an open economy model explained above, Basant and Fikkert (1996) and Evenson and Joseph (1999) have argued that liberalisation increases opportunities for developing countries to increase its returns to investments in technology through licensing agreements with developed countries. Hence, firms in developing countries would invest more in patenting and licensing foreign technology. Often, these technologies from the developed countries are found to be skill-biased and increasing wage inequality in developing countries. Empirical support for skill-bias of patented technology from developed countries was provided by Hanson and Harrison (1999). They argue that, increasing wage inequality between skilled and unskilled workers in Mexico is response to the increasing FDI flows and licensing agreements during the liberalisation. Another study by Pavcnik (2003), finds that skill upgrading is high in plants where a plant receives foreign technical assistance and pays for use of patented technology. Based on the available evidence, we expect a positive impact of import of disembodied technology.

Import of Disembodied Technology = Value of fees paid to licenses and Royalties/Sales

Import of Intermediate Technology

One of the key factors which received much attention in the literature related to wage inequality is outsourcing or what is otherwise called as participation in global production network which is source of wage inequality in both developed and developing countries (Feenstra and Hanson, 1995, 1996; Hanson and Harrison, 1995). They argue that globalisation has led to fragmentation of production into discrete and outsource the intermediate parts which are relatively less skill-intensive production to developing countries. But for developing country standards, the less skill intensive goods turns out to be skill intensive activity and hence result

in increased demand for skilled workers in developing countries and reduction in the demand for unskilled workers in developed countries. Using this insight, Zhu and Trefler (2005) argued that technological catch-up (more broadly defined than mere greater use of physical capital) in the developing countries results in a shift in favour of skill intensive exports (that is skill-intensive relative to developing country endowments) and this raises the demand for skill and wage inequality. Feenstra and Hanson (2001) found that outsourcing in the form of increasing import of intermediate technology from U.S, changes relative wage by inducing an outward shift in the relative demand for skilled labour in Mexico. We expect a positive impact of intermediate technology on wages of skilled workers.

Import of Intermediate Technology intensity = Import of intermediate technology/Sales

Domestic Technology

R&D Intensity

In an article Theonig and Verdier (2003) argues that, globalisation leads to threat of technological leapfrogging and imitation. As a result firms invest heavily in R&D in producing intangible technologies in both developing and developed world. Finally, they conclude that defensive innovation in the light of open economy tends to be skill-biased as a result of demand for skilled workers. Several empirical papers, examining technological change as a source of increasing wage inequality have examined the impact of R&D on wage inequality. In a seminal paper by Berman et al. (1994), while investigating the sources of wage inequality in US manufacturing they found that, R&D investment is positively related with the increasing wages of skilled workers. Their results suggest that one per cent increase in R&D results in 0.10 percent in wages of skilled workers. A study by Autor et al (1998) Machin and Van Reenen (1998), Adams (1999) and Sanders and Weel (2000) finds that, along with the increasing computer intensity and capital intensity, R&D which is taken as proxy for technological change is positive and significantly related to increasing wages of skilled workers.

R&D Intensity = Value of R&D expenditure/Sales

Domestic Capital Goods

Since Independence, India's economic policies have concentrated on developing indigenous technology by emphasizing on developing capital goods sector (Joseph and Abrol, 2009). Technology embedded in capital is considered to complement skills right from the early 20th century (Goldin and Katz, 1998). Studies have also argued that capital goods complement skilled workers over unskilled workers hence raises demand for skilled workers, which in turn increases wages of skilled workers. In the previous chapter we have noticed that use of domestic capital goods have been growing during post liberalisation period. Hence, we expect that

domestic capital goods play a crucial role in explaining changes in the wages of skilled workers.

Domestic capital goods = Value of plant and machinery minus value of imported capital goods/Sales

Domestic Disembodied Technology

Another important component of purchases of technology from the domestic sources is purchase of royalties and licenses from other domestic firms. While Basant and Fikkert (1996) argued that technology imports increased in the post reform period, Pradhan and Puttaswamaiah (2005) and Choragudi (2008) argue that expenditure on domestic disembodied technology is increasing during post reform period. Our results also show that growth in domestic disembodied technology is highest among all the technology elements. Since Acemoglu (2003) and Pavcnik (2003) argue that growth in licensing technology also complements skills. Hence, we expect a positive relation between domestic disembodied technology and wages of skilled workers.

Domestic Disembodied Technology = Expenditure on Fees and licences/Sales

Labour Market Regulations[11]

Prior to the trade versus technology debate, as an explanation for increasing wages of skilled workers, studies have analysed the issue in the context of labour market imperfections like the presence of trade unions. Some scholars have argued that the decline in demand for unskilled workers in U.S economy since the beginning of 1970s has been due to decline in trade unions (Freeman, 1991). However, in the developing economies the issues of job regulations and labour market flexibilities, which have significant bearing on employment outcomes, have drawn attention in the light of liberalisation (Aghion et al. 2005 and Sharma, 2005). After liberalisation, in order to face global competition, firms followed the cost cutting strategy by hiring more contract workers at less wages and outsourcing of production and so on (Ramaswamy, 1999). This leads to the substitution of unskilled regular workers with unskilled contract workers. Hence, labour regulations may lead to substitution skilled workers for unskilled workers which raise wages of skilled workers. In an attempt to find out the sources behind wage inequality in Indian manufacturing, Ramaswamy (2008) used contract worker intensity as a proxy for job regulations and the results show that contract intensity has a positive and significant relationship with increasing wages of skilled workers.

Contract worker intensity = Number of contract workers employed/ Total Employment

[11] The job regulations may be defined to include all those legal provisions that increase the cost of workforce adjustment by retrenchment of workers (Ramaswamy, 2008).

Table 2
Construction of Variables

Variable Name	Description	Construction
SSW	Share of Skilled Workers Wages	Total wages to skilled/ Total wages
CI	Capital Intensity	Gross Fixed Assets/Total Employment
ICG	Import of Capital goods intensity	ICG/sales
IDT	Import of Disembodied Technology intensity	Royalties to foreign firms/sales
IIT	Import of Intermediate Technology intensity	Import of spare parts/sales
DCG	Domestic Capital Goods intensity	Plant and Machinery minus ICG/ Sales
DDT	Domestic disembodied technology intensity	Royalty payments/ sales
RDI	R&D intensity	R&D expenditure/sales
ITI	Imported Technology Intensity	ICG+IDT+IIT/sales
DTI	Domestic Technology Intensity	DCG+DDT+R&D/sales
TI	Total Technology Intensity	IT+DT/sales
OUTPUT	Value of output	sales
CONTRACT	Contract worker intensity	Number of contract workers/Total employment

5.3 Estimation Results

Scholars have analysed panel data using the Ordinary Least Square (OLS) for estimation.[12] However, pooled regression biases the estimated results upwards if significant cross-section or time fixed effects are present.[13] Hence, the present study started panel analysis with fixed effect and random effect regression of equation which takes care of unobserved elements in the model.[14]

[12] See for instance, Berman et al. (2005).
[13] See Bhalotra (1998) for a clear discussion.
[14] Fixed effect and random effect model controls for unobserved variable that changes over time. For a detailed discussion on the advantages of fixed and random effect estimation, see Baltagi (2008) and Wooldridge (2002)

Table 3
Estimation of Impact of Technology on Wages of Skilled Workers

Dependent variable: Share of Skilled Wages		
Regressor	(1)	(2)
	Fixed Effects	**Random Effects**
	Coefficients (t values)	**Coefficients (z values)**
Log CI	3.946*** (8.69)	4.290*** (9.78)
Log TI	2.103*** (4.72)	1.80*** (4.05)
Log OUTPUT	2.281*** (5.63)	1.68*** (4.59)
Log CONTRACT	0.79*** (3.38)	.79*** (3.37)
Constant	23.88*** (7.78)	28.15*** (9.32)
Observations	710	710
Hausman specification test	χ^2=168.28 (p = 0.000)	
R squared	0.09	0.11
F-Test	110.47	-
Wald	-	422.93
Prob>F	0.00	0.00

Note: Robust t statistics in parentheses

* indicates significance at 10%; **indicates significance at 5%; *** indicates significance at 1% level.

Column 1 and 2 in Table 3 shows the estimated results of fixed effect and random effect model. We can observe from the table that the co-efficient values of fixed effects model and random effects model differ from each other. However, they show same signs as well as significance level. In order to check which model is reliable in our estimation, we have estimated Hausman Specification test, which informs whether fixed-effects or random-effects model is reliable. The test yields statistically significant result (χ^2=168.28) which indicates that fixed effects is preferable to the random effect model. Thus, hereafter we interpret results of fixed effect model. Estimated values of F and Wald chi2 values are significant at 1 per cent level. Overall, the regression model employed is robust to examine the causal relationship between technology and skilled wages.

Having confirmed that the model is suitable for fixed effect estimation, Table 4 presents the results of fixed effect estimation according to technology classification. Columns 1, 2, 3, 4, present the estimated results of total manufacturing, high

tech, medium tech, and low tech industries. From the Table, it can be observed that capital intensity is positively and significant at 1 percent level across all the industry classifications except in medium tech industry where it is significant only at 5 percent level. This result is consistent with hypothesis is of capital skill complementarity (Griliches, 1969; Krusell et al. 2000).[15] It can be observed that the coefficient value of capital intensity is higher in high tech industries at 4.77 compare to other industries as well as total manufacturing which is at 3.94 percent. This implies that one per cent increase in capital intensity leads to 4.77 percent increase in wages of skilled wages which is much higher compare to other industries such as medium tech and low tech industries where one percent increase leads to 1.8 and 3.7 percent increase in wages of skilled workers respectively.

Table 4

Estimation of Impact of Technology on Wages of Skilled Workers according to Technology Classification during

Dependent variable: Share of Skilled Wages				
	Fixed Effect Model			
	(1)	(2)	(3)	(4)
	Manufacturing	**High Tech**	**Medium Tech**	**Low Tech**
Regressor	**Coefficients (t values)**	**Coefficients (t values)**	**Coefficients (t values)**	**Coefficients (t values)**
Log CI	3.946*** (8.69)	4.775*** (6.78)	1.844** (2.27)	3.773*** (3.11)
Log TI	2.103*** (4.72)	3.137*** (4.25)	1.378* (1.89)	1.212 (1.11)
Log OUTPUT	2.281*** (5.63)	2.004*** (2.98)	2.750*** (2.82)	4.168*** (4.81)
Log CON-TRACT	0.79*** (3.38)	.937*** (2.88)	.499 (.70)	-.271 (-0.43)
Constant	23.88*** (7.78)	32.14*** (6.43)	14.89* (1.86)	4.02 (0.61)
Year dummy	Yes	Yes	Yes	Yes
Observations	710	322	160	236
Time FE	Yes	Yes	Yes	Yes
R squared	0.09	0.07	0.18	0.05
F-Test	110.47	46.66	19.29	34.56
Prob>F	0.00	0.00	0.00	0.00

Note: Robust t statistics in parentheses

* indicates significance at 10%; **indicates significance at 5%; *** indicates significance at 1% level.

[15] Our results of capital skill complementarity are consistent with the studies in Indian context as well; such as Berman et al. (2005), Ramaswamy (2008) and Abraham (2009)

Similarly, total technology intensity is found to be highly significant at 1 percent level in total manufacturing and high-tech industries and significant at 10 percent level in medium tech industries whereas low tech industries does not show any significance level. Among all, the coefficient of technology intensity is highest in high tech industries (3.13) imply that technology skill complementarities are highest in high tech industries. High tech industries by their structure are highly technology intensive compared to the other medium tech industries and low-tech industries hence demands high skilled labour. Output which represents the scale effect on skilled wages is highly significant at 1 per cent level in total manufacturing as well as high tech, medium-tech and low-tech industries. However, the coefficient of output is high in low tech industries (4.16) indicating that the scale effect on share of skilled wages is high in low tech industries compare to other coefficients. In medium-tech and high-tech industries capital intensity and technology intensity contribute most significantly to wage inequality. It should be noted that the output coefficient is lowest in high tech industries. Our finding, significant scale effect on wages of skilled workers is consistent with the findings of Berman et al. (2005) and Ramaswamy (2008) that also showed the positive and significant scale effect. Our proxy for labour market flexibility i.e. contract worker intensity is turned out significant at one percent level in total manufacturing as well as high tech industries. This can be interpreted as, if there are costs of labour regulations and they are not offset by strong scale-economies then industries have an incentive to hire relatively more skilled labour increasing skill-wage inequality.

Table 5
Estimation of Impact of Domestic and Imported Technology on Wages of Skilled Workers According to Technology Classification

Dependent variable: Share of Skilled Wages				
	(1)	(2)	(3)	(4)
	Manufacturing	**High Tech**	**Medium Tech**	**Low Tech**
Regressor	**Coefficients (t values)**	**Coefficients (t values)**	**Coefficients (t values)**	**Coefficients (t values)**
Log CI	4.326*** (9.07)	4.344*** (6.13)	3.861*** (3.83)	3.999*** (3.39)
Log ITI	0.95 (0.43)	-.383 (-1.03)	-.632 (-1.58)	1.651*** (3.38)
Log DTI	1.073*** (3.30)	2.060*** (3.77)	-.177 (-1.58)	1.131* (1.70)
Log OUTPUT	2.739 *** (5.78)	3.890 *** (4.25)	1.194 (1.09)	4.453*** (4.94)
Log CONTRACT	.658*** (2.78)	.809*** (2.52)	.583 (0.83)	-.544 (-0.82)

Dependent variable: Share of Skilled Wages				
	(1)	(2)	(3)	(4)
	Manufacturing	**High Tech**	**Medium Tech**	**Low Tech**
Constant	19.29*** (5.40)	15.58** (2.26)	22.07*** (2.66)	8.12 (1.19)
Observations	710	322	158	230
Time FE	Yes	Yes	Yes	Yes
R squared	0.09	0.07	0.13	0.03
F-Test	110.47	40.85	17.31	29.18
Prob >F	0.00	0.00	0.00	0.00

Note: Robust t statistics in parentheses

* indicates significance at 10%; **indicates significance at 5%; *** indicates significance at 1% level.

The estimated results of Equation 5 are provided in Table 5 where we capture the effect of imported and domestic technology on wage inequality. The results show that imported technology intensity is insignificant in total manufacturing, high tech and medium tech industries whereas it is significant in low tech industries. Our results are in contrast with the literature in the context of other developing countries which argue that globalisation facilitated technology transfer from developed countries and the technologies imported from outside are the main contributing factors in increasing skilled wages (Robbins, 1995, 1996; Hanson and Harrison, 1999; Mayer, 2000, Pavcnik, 2003; among others).[16]

On the other hand, domestic technology intensity is highly significant at 1 percent level in total manufacturing, high-tech industries and low-tech industries. As against the predictions of literature, domestic technology seems to contribute for increasing skilled wages than the imported technology. This could be probably due to the emphasis on the development of capital good base since independence, which led industries to depend on domestic technology even after liberalisation. Output is significant across all industrial groups except in medium tech industries. Interestingly, after dividing technology into domestic and imported, the output coefficient which was significant in the previous regression (see Table 4) turned insignificant in this regression (see Table 5 column 3) in medium tech industries. In the same way, in the previous regression (see Table 4), contract intensity is significant in total manufacturing and high-tech industries, insignificant in medium tech and low tech industries. Moreover, the coefficient sign is negative in low tech industries which implies contracting intensity is negatively related with share of skilled wages implies that more flexibility in labour market leads to decrease in skilled wages.

[16] Acemoglu (1998) argues that the capital goods and technologies transferred through trade with OECD countries are likely to be more skill using than locally available ones, having been developed in an environment where skills (notably cognitive ones) are relatively abundant.

Having examined the impact of imported and domestic technology separately on the share of skilled wages, we further explore the elements in both domestic and imported technology that are significantly affecting wages of skilled workers. The estimated results of Equation 6 are presented in Table 6. The regression results show that capital intensity is highly significant at 1 percent level in all industrial groups except in medium tech industries. Among the elements of imported technology, literature shows that the transfer of technology embedded in capital goods to developing countries demand high skilled labour thus increased wages of skilled labour (Connor and Lunati, 1999; Gorg and Strobl's, 2002; Conte and Vivarelli, 2007; Meschi et al. 2008).

Table 6
Estimation of Impact of Elements of Domestic and Imported Technology on Wages of Skilled Workers According to Technology Classification

Dependent variable: Share of Skilled Wages				
	(1)	(2)	(3)	(4)
	Manufacturing	**High Tech**	**Medium Tech**	**Low Tech**
Regressor	**Coefficients (t values)**	**Coefficients (t values)**	**Coefficients (t values)**	**Coefficients (t values)**
Log CI	3.254*** (5.63)	3.219*** (3.65)	1.559 (1.40)	3.122*** (3.64)
Log ICG	.0634 (0.27)	.093 (0.26)	-.480 (-1.30)	.769*** (2.95)
Log IDT	.102 (0.57)	-.530 (-1.26)	-.325 (-0.78)	.157 (1.20)
Log IIT	-.884*** (-3.50)	-1.074*** (-2.77)	1.016* (1.88)	-.106 (-0.30)
Log DCG	2.062*** (3.71)	2.862*** (3.27)	.156 (0.15)	.843 (1.16)
Log DDT	-.0740 (-0.37)	.160 (0.36)	-.274 (-0.80)	-.030 (-0.18)
Log RDI	-.154 (-0.69)	-.390 (-0.93)	-.721 (-1.63)	-.287* (-1.93)
Log OUTPUT	2.598*** (4.15)	4.243*** (3.74)	3.942*** (2.93)	2.374*** (3.55)
Log CONTRACT	.856*** (2.91)	.894** (2.19)	-.248 (-0.34)	.044 (0.10)
Constant	16.08*** (3.04)	6.58 (0.67)	-3.02 (-0.28)	16.27*** (2.93)
Observations	547	260	137	153
Time FE	Yes	Yes	Yes	Yes

Dependent variable: Share of Skilled Wages				
	(1)	(2)	(3)	(4)
	Manufacturing	**High Tech**	**Medium Tech**	**Low Tech**
Regressor	**Coefficients (t values)**	**Coefficients (t values)**	**Coefficients (t values)**	**Coefficients (t values)**
R squared	0.02	0.02	0.08	0.1
F-Test	37.11	21.55	10.58	16.39
Prob>F	0.00	0.00	0.00	0.00

Note: t statistics in parentheses

* indicates significance at 10%; **indicates significance at 5%; *** indicates significance at 1% level.

However, contrary to the predictions of this literature, our findings show that import of capital goods is insignificant in total manufacturing, high-tech and medium-tech industries. Nevertheless, import of capital goods is highly significant in low tech industries with the coefficient of 0.76. In the previous model we have noted that imported technology has significant impact on wages of skilled workers in the low-tech industries. From the Table it is clear that among imported technologies it is import of capital goods that has significant impact on skilled wages. One can otherwise explain this result as; after liberalisation low tech industries sought technology from outside which resulted in significant impact on skilled wages.

Import of disembodied technology is insignificant across all industrial groups which are similar to the result that is reported in Banga (2005). Similarly, import of intermediate technology is found to be significant but negatively related to the share of skilled wages in the total manufacturing and in high-tech industries where as significantly (at 10 per cent) and positively related in medium tech industries. The negative relation between intermediate technology and skilled wages is in contrast with the international literature which argues that globalisation leads to outsourcing which complements skills (see Feenstra and Hanson, 1996, 2001; and Hanson and Harrison, 1999). However, the negative relation could be probably due to two reasons. First, our import of intermediate technology such as spare parts and others are probably semi-skilled or unskilled augmenting than skilled labour augmenting.[17] Second, our imports of intermediate technology could be very much processed that it needs very less skilled manpower to assemble.

On the other hand, among the elements of domestic technology, domestic capital goods are found to be highly significant in total manufacturing and high-tech industries and insignificant in medium and low-tech industries. Among all elements of technology, it is basically domestic capital goods that are complementing skills in manufacturing sector during the liberalisation period.[18] All other domestic

[17] We may be importing simple spare parts which do not require skilled man power to make it final product.

[18] This finding is in contrast with the skill enhancing trade hypothesis by Robbins (1995)

technology elements such as domestic disembodied technology and R&D intensity is insignificant across all industrial groups except in low tech industry where R&D is significant at 10 percent level but negatively related to share of skilled wages with the coefficient of -0.28. There is positive and significant scale effect with output being significant across all industrial groups.

6. CONCLUSION

This paper analyses the relative role of imported and domestic technology in determining wage inequality between skilled and unskilled workers. A preliminary analysis of trends and pattern suggests widening gap between wages of skilled and unskilled workers particularly after the liberalization. The empirical estimates show that, capital intensity, technology intensity and output are significantly related to share of skilled wages across all industrial groups except in low tech industries. Further, when we divide technology into domestic and imported, imported technology turned to be significant only in low tech industries on the other hand, domestic technology is highly significant in manufacturing sector, high-tech industries and as well as low tech industries. From these results, we could infer that, much of the skill changes in the post liberalisation period are due to domestic technology than the imported technology. Our results further show that import of capital goods is significantly affecting skilled wages in low tech industries and domestic capital goods is contributing to the changes in skilled wages in total manufacturing and high-tech industries. Thus, we infer that, the changes in wages of skilled workers could be primarily contributed by the domestic technology rather than the imported technology.

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Appendix

Table 4 Descriptive Statistics of the Variables					
Variables	**Number of Observations**	**Mean**	**Standard Deviation**	**Minimum**	**Maximum**
SSW	731	42.01	10.88	9.27	76.64
CI	731	4.36	9.06	0.08	121.67
TI	730	0.53	0.35	0	2.25
ITI	730	0.04	0.08	0	1.04
DTI	730	0.49	0.35	-0.72	2.19
ICG	731	0.03	0.08	0	1.02
IDT	731	0.00	0.00	0	0.03
IIT	731	0.01	0.03	0	0.29
DCG	731	0.48	0.36	-0.72	2.19
DDT	731	0.02	0.34	0	9.09
RDI	731	0.00	0.01	0	0.08
OUTPUT	731	9548.01	24883.91	0	305130.40
CONTRACT	731	0.19	0.17	0	2.95

Table 5 Correlation Matrix for the Variables										
	SSW	CI	ICG	IDT	IIT	DCG	DDT	RDI	OUTPUT	CON
SSW	1									
CI	0.43*	1								
ICG	-0.12*	0.09*	1							
IDT	0.24*	0.14*	0.29*	1						
IIT	0.18*	0.02	0.23*	0.39*	1					
DCG	0.00	0.37*	0.09*	-0.02	0.03	1				
DDT	0.38*	0.08*	0.07*	0.41*	0.30*	-0.00	1			
RDI	0.40*	0.11*	0.06*	0.34*	0.37*	-0.03	0.25*	1		
OUTPUT	0.16*	0.45*	-0.13*	0.00	-0.05	-0.04	-0.00	0.15*	1	
CON	0.00	0.19*	-0.13*	-0.14*	-0.22*	0.06*	-0.10*	-0.17*	0.33*	1

Note: * indicates significance at 1 % level.

Labour & Development, Vol. 27, No. 2, December 2020

REVERSE MIGRATION: CHALLENGES AND PUBLIC POLICIES DURING THE PANDEMIC

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The imposition of a nation-wide lockdown in India in response to the novel COVID-19 pandemic in March, 2020 has been, appropriately, lauded as an effective pre-emptive strategy. However, a distressing pitfall has been the massive 'reverse migration' of migrant workers from the destination centres in an attempt to escape starvation brought on by sudden collapse of employment and lack of effective social protection mechanisms; posing severe challenges for the State. The study, based on different secondary databases, has attempted to analyse the migration trends. By using education level as a proxy for skill level, it is shown that the likelihood of their employment in informal, unorganised sector and poorly remunerated sectors/ occupations is expected to be high. The paper provides a brief overview of the policy measures initiated by the governments at national and sub-national levels; and also makes some policy suggestions to create better social protection for migrant workers.

Keywords: *Reverse Migration, COVID-19, Public Policy, Inter-state Migrants, Domestic Migration*

1. INTRODUCTION

The imposition of a nation-wide lockdown in India in response to the novel COVID-19 pandemic in March, 2020 has been, appropriately, lauded as an effective pre-emptive strategy. However, it has also been instrumental in unintentional creation of multi-layered problems for the economy ranging from production on one hand and demand/income generation on the other. One such pitfall has been the mass exodus of migrant workers from destination centres (primarily urban) to the source centres in an attempt to escape the starvation and dwindled access to essential items, brought on by sudden collapse of employment and lack of effective social protection mechanisms.

As per Census 2011, the total number of internal migrants stood at a staggering 455.7 million in 2011 (Dandekar & Ghai, 2020). The primary reasons for a high internal migration in India have been regional disparity, lack of job opportunity or underemployment source centres, as well as chronic poverty, weak education system and skill mismatch etc. While the destination areas do provide employment opportunities, a disproportionate share of these workers more often than not, reside and work in dismal conditions as informal workers and have none or very small amount of savings. These small savings imply that they did not have a 'buffer' to

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accommodate the 'short term uncertainties' brought on by the blackswan event, that is the pandemic. The lockdown hit the urban centres (like Delhi, Mumbai etc.) the worst which are also the primary destination locations for workers from other states/districts. As per Centre for Monitoring Indian Economy (CMIE), the urban unemployment rate steeply increased from 9.41% to 24.95% between March and April, 2020 before peaking in May, 2020 to 25.79%. The specific sectors that were affected as lockdown was implemented included construction, manufacturing, trade, hotels and restaurants which collectively account for 55.2% of the total urban employment (PLFS Report, 2019-20). The economy witnessed a significant contraction of IIP; cumulative growth during April to June, 2020-21 was -24.6 %. In fact, all industries except fertilisers suffered a huge decline. These sectors employ a large share of migrant workers (particularly informal workers) at the urban centres. The World Bank study by Ratha et al. (2020) asserted that, roughly 40 million internal migrants (inter and intra-state) were affected by the lockdown. Additionally, a nation-wide primary survey of roughly 11,000 informal workers conducted by Action-Aid India during the lockdown revealed that roughly 81 per cent of migrant workers lost their livelihood while the figure was relatively lower for non-migrant workers (71%). Additionally, only 35% of the sample received full wages during the lockdown while 48% did not receive any wages.

The consequent never-seen-before reverse migration as inter-state and inter-district bans were lifted has brought to the forefront of policy discussions not only the immediate issues of this particularly vulnerable group but also the broader issues pertaining to their identification, informal and dismal employment conditions in destination centres including lack of social security and low bargaining power, to mention a few. Within the migrant workers, the inter-state migrant workers have been especially affected due to non-portability of entitlements and identification issues.

Given the rapidly altering circumstances, the government has encountered three primary challenges with regard to migrant workers. First, immediate arrangement for basic needs, health facilities and social protection for the low-end workers and marginalised communities. Second, generation of employment for return-migrants at the source centres. This is challenging if we consider that the states with high number of out-migrants (like Bihar) have already been struggling with their fiscal spaces thereby making further increases in state expenditure to accommodate the sudden rise in labour force, difficult. Third, incentivizing the migrants to stay or for reverse migrants to return to the destination centres. This is essential because immigrants contribute significantly towards the destination places through their labour and skills (often referred as 'city makers'), as well as invest and pay indirect taxes to the state economy.

Against this backdrop, the Finance Minister announced important stimulus packages to tackle the situation to the tune of 20 lakh crores within the first two months of the lockdown imposition. This paper is aims to assess the migration

trends on the basis of available data from the Census of India 2001 and 2011 and to examine the efficacy of the State's responses (Union and State governments) to address the emerging challenges due to 'reverse migration'. Section II provides an overview of the interstate migration trends, and highlighted the education level as a proxy for skill level. The exercise has primarily focused on the inter-state flow of migrants, in an attempt to identify the state specific policy dynamism required to address the issues of the migrant workers. The next section provides a brief overview of the current policies and allocations undertaken for the poor, in general and migrants in particular, and analyses the magnitude to the state response in terms of sufficiency, feasibility and changing landscapes affected the fiscal space. Section IV offers some concluding remarks basis the foregoing discussion.

2. INTER-STATE MIGRATION IN INDIA – AN OVERVIEW

The Census and the National Sample Survey Organisation (NSSO) are the primary sources of migration data in India. Researchers have argued that both suffer from inherent severe methodological issues and grossly underestimate the total domestic migration. This can be accrued primarily to the fact that neither Census nor NSSO capture accurately the circular/seasonal migration flows which is a large part of overall migration processes (Dandekar & Ghai, 2020; Deshingkar & Akter, 2009). In fact, Deshingkar & Akter (2009) have shown that the circular migrants alone were close to 100 million in India in 2008. Additionally, lack of enumeration and rigid definition of 'migrant' excludes a large portion of these workers particularly seasonal and 'footloose'[1] workers. Of the informal workforce in urban India, 100 million people, or 1 in 10 Indians are seasonal/circular/short-term migrants (Thomas et al, 2020). Moreover, there are definitional issues with the term 'migrant' as it is based solely on place of last residence or place of birth which leads to some inflexibility in the concept itself (Dandekar & Ghai, 2020). While the last NSSO survey on migration was conducted in 2007-08, the latest Census figures for 2011 were made available in 2019. These 9-year old census figures are, thus, outdated and may underestimate the migration trends underway currently. However, given the data limitations, Census is considered the most reliable and latest data source.

The actual figures for Census 2011 show that the total number of internal migrants in India i.e., the individuals migrating within the country, stood at a staggering 449.9 million in 2011, constituting 37.2% of the total population and 98.7% of the total migrants[2] in the country. As shown in Table 1, between 2001 and 2011, the internal migrants increased at a rate 3.82% per annum which was even higher than

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[1] Hired from rural areas by contractors who move from city to city in search of work and without a final destination.

[2] Total migrants refer to anyone whose last residence is different from their place of enumeration. It is inclusive of individuals whose last residence was within India as well as outside India.

the population rate of growth of 1.64% per annum implying a significant increase in labour mobility within the nation.

Table 1
Total Migrants in India by Last Residence, 2001-2011

	2011 (in Millions)	Share of total migrants (%)	2001 (in Millions)	Share of total migrants (%)	Rate of growth between 2001-2011 (%)	Per annum rate of growth (%)
Intra-State	395.7	86.8	268.2	85.3	47.5	3.96
Inter-State	54.3	11.9	41.2	13.1	31.8	2.80
From other countries	5.9	1.3	5.1	1.6	13.8	1.31
Total Migrants	*455.8*	*100*	*314.5*	*100*	*44.9*	*3.78*
Total Internal Migrants	*449.9*	*98.7*	*309.4*	*98.4*	*45.4*	*3.82*
Total Population	*1210.9*	-	*1028.6*	-	*17.7*	*1.64*

Source: Authors' calculation from Census 2011 D2 table based on last residence; Last accessed on 30th July, 2020. Census 2001 data, available at: https://censusindia.gov.in/Census_And_You/migrations.aspx

Further bifurcation of the internal migration reveals that the intra-State migration accounted for a lion's share of the total internal migration in the country both in 2001 and 2011 comprising of 85.3% and 86.8% of the total migrant population respectively. On the other hand, the inter-State migration constituted a fairly smaller share of the total migrant population; the share even decreased from 13.1% to 11.9% from 2001-11. This is because, migration over smaller distances (within the state) as farm/non-farm labourers, close to their own district is often be preferred by individuals. Notwithstanding, the total inter-state migrant population is still significant in absolute sense. It, in fact, rose from 41.2 million to 54.3 million recording an average rate of growth of 2.8% p.a. during the decade.

The four migration streams as prevalent in 2011 have been specified in Table 2. It is evident that distinct patterns emerge for inter-state and intra-state movements. For *within-State* migration, the dominant movement has been from *rural-to-rural* areas accounting for 51% of all such migrations while Rural to Urban migration is quite low (14.8%).

Table 2
Stream of Migration for Internal Migrants in 2011

Steam of Migration	Inter-State		Intra-State	
	Persons	% Share	Persons	% Share
Rural-Rural	1,20,19,426	22.2%	20,17,39,806	**51.0**%
Urban-Rural	28,89,303	5.3%	2,40,85,918	6.1%
Urban-Urban	1,68,07,989	31%	6,12,92,128	15.5%
Rural-Urban	1,96,16,060	**36.1**%	5,85,85,417	14.8%
Unclassifiable to rural	9,86,521	1.8%	33695236	8.5%
Unclassifiable to urban	19,45,450	3.6 %	16254164	4.1%
Total	5,42,64,749	100.0%	39,56,52,669	100.0%

Source: Authors' calculation from D2 Migration table, Census 2011; Last accessed on 30th July, 2020.

Note: (1) The figures are based on all durations of residence.
(2)'Unclassifiable' are those whose last residence could not be classified as rural or urban.

On the other hand, for across state migration, the principal channel has been the *rural to urban* (36.1%). Only 12 million out of 54.3 million inter-state migrants belonged to the rural to rural migration stream. The urban to urban migration was also quite high (31%) for this type of migration. The inter-state migrants who migrated to the urban areas, irrespective of their last residence, constituted 70.7% of the total inter-state migrant while the corresponding figure for the intra-state was only 34.4%. This is to say, the inter-state migration has primarily been urban-centric while the intra-state, rural-centric. A similar trend for 'across state' migration streams for also observed between 1991 and 2001 (Das & Saha, 2013).

Further, a spatial analysis of the inter-state migration patterns was undertaken. Table 3 presents the top five states as per net-immigration[3] from other states in 2011 for any duration of residence. The net-immigration was highest for *Maharashtra (6 million), NCT of Delhi (4.8 million), Gujarat (2.3 million), Haryana (1.3 million) and Punjab (0.7 million)*; all high GSDP states. In terms of total immigration from other states, Maharashtra stood at the top with 9.1 million individuals, followed by Delhi, Gujarat and Haryana. These migrant workers serve as the reserve army of labour at the destination centres constituting a significant share of their total population in 2011. Delhi had recorded the highest total immigrants from other states as a proportion of its population (Mukhra et al., 2020; Dandekar, A., & Ghai, R., 2020).

[3] Net immigration = Total Immigrants – Total Out-migrants.

Table 3
Top 5 States as per Net in-Migration (any duration of residence), Census 2011

States	Net In-migrants from other states (in million)	Total Immigrants from other states	% Share of 2011 Population
Maharashtra	6	9.1	8.1%
NCT of Delhi	4.8	6.3	37.7%
Gujarat	2.3	3.9	6.5%
Haryana	1.3	3.6	14.3%
Punjab	0.7	2.5	9%

Source: Author's Calculation from table D2 Census, 2011. Last accessed on 30th July, 2020. Population figures available at https://www.census2011.co.in/states.php

On the flip side, *Uttar Pradesh and Bihar* were the states with the largest total as well as net out-migrants. The net out-migration[4] to other states was quite high; 8.3 million and 6.3 million respectively as in 2011. *Rajasthan* was also an important contributor to the labour supply of other states with 1.2 million net-out migrants. In terms of total outmigration, nearly 12.3 million people migrated to other states from UP, followed by about 7.5 million from Bihar and 3.8 million from Rajasthan. UP witnessed a large influx of migrant population from other states to the tune of 4.1 million. However, the total outmigration was significantly higher.

One could argue that the internal migration of labour from rural areas to urban centres may be a discernible outcome of the structural transformation of a rural economy to an industrial one. However, the migration patterns across states reveal, the urban-centric inter-state migration outcomes have largely been instigated by the pronounced regional disparity in the country - lack of employment opportunities and stagnating rural economy in the home states. The claim is further assessed in Table 4 through an inquiry into the reasons of migration for both inter- as well as intra-state migration, separately for males and females. It is observed that there are some dissimilarities between the two types of migrations. While the primary reason for all internal migration remains 'family-related', 'work' accounted for 24.7% of inter-state movement but only 7.8% for intra-state migrations. Furthermore, the reasons differed significantly by gender (for all duration of residence) for across states migrants as shown in the following Table. The predominant cause for males was work/employment/business (50.2%), but the primary reason among females was family related (83.3%), in general and marriage (31.1%), in particular. For all persons, the central cause has been family related (60%) followed by work (25%). This is consistent with the general trend in the economy observed by Das & Saha (2013) between 1991-2001. On the other hand, for within-state migration, the central

[4] Net Outmigration = Total out-migrants – Total Immigrants.

reason has been family related for both men and women, albeit the proportion is significantly different. While 83% females moved within-states on account of family, only 40% males fall in that group.

Table 4
Reasons for Migration by Gender, Census 2011

Inter-State Migrants						
	Persons	Males	Females	Persons (%)	Males (%)	Females (%)
Work	1,34,20,989	1,19,73,661	14,47,328	24.7%	**50.2%**	4.8%
Education	7,44,015	5,05,884	2,38,131	1.4%	2.1%	0.8%
Family	3,24,55,607	71,31,606	2,53,24,001	**59.8%**	29.9%	**83.3%**
Others	76,44,138	42,58,661	33,85,477	14.1%	17.8%	11.1%
Total	5,42,64,749	2,38,69,812	3,03,94,937	100.0%	100.0%	100.0%
Intra-State Migrants						
	Persons	Males	Females	Persons (%)	Males (%)	Females (%)
Work	3,09,29,324	2,51,68,053	57,61,271	7.8%	21.0%	2.1%
Education	46,58,223	27,53,894	19,04,329	1.2%	2.3%	0.7%
Family	27,51,09,194	4,68,73,393	22,82,35,801	**69.5%**	**39.2%**	**82.7%**
Others	8,49,55,928	4,48,02,500	4,01,53,428	21.5%	37.5%	14.5%
Total	39,56,52,669	11,95,97,840	27,60,54,829	100.0%	100.0%	100.0%

Source: Authors' calculation from table D3, Census 2011; Last accessed on 30th July, 2020.

Note: (1) 'Family' reasons include marriage, moved at birth, moved with household.
(2) Work/Employment has been clubbed with Business as 'Work'.

The pattern of inter-state migration and the reasons for the same, collectively, point to the fact that migration has been driven primarily by disparities in regional development (Das & Saha, 2013). Certain urban centres particularly administrative capitals within more developed States (Delhi, Maharashtra, Gujarat etc.) have become the prime recipient of inter-state migrants from other resource-poor, undeveloped states which have been lagged behind in the process of development. In this regard, long-distance, across state migration, particularly from rural to urban areas (which is the largest stream of migration for inter-state movement) cannot be assumed to be a choice, instead an escape. Mukherji, (1991) argued that "inter-state migration of the males for employment, (as well as of females) is still very much linked with the underdevelopment, poverty, spatial disorganization, regional disparities, social inequalities, rural stagnation, rural neglect and unbalanced regional development over national space".

The obvious question that then emerges is whether the type of employment that they are likely to achieve in the destination centres will reduce their vulnerability. No

estimates are available regarding the kind of employment for the migrant workers separately. Thus, the broad education level has been used as a proxy for the skill level, albeit with a pinch of salt, to gain a broad understanding of the primary employment opportunities that might be available to the migrant workers. Table 5 below provides the education profile for the individuals who had migrated across states for the purpose of employment between the Census 2001 and 2011.

Table 5
Level of Education of Inter-state Migrants Who had migrated for 'Work/ Employment' between 2001 and 2011 (0-9 duration of residence considered)

Level of education	Figures			% Share		
	Persons	Male	Female	Persons	Male	Female
Illiterates	1082472	822487	259985	18.5%	15.9%	38.5%
Literate but without classifiable education level	231689	206467	25222	4.0%	4.0%	3.7%
Literate below Secondary	1858136	1720784	137352	**31.8%**	**33.3%**	**20.3%**
Secondary but below Graduate	1419250	1332619	86631	24.3%	25.8%	12.8%
Technical education but Not equivalent to degree	93923	82656	11267	1.6%	1.6%	1.7%
Graduate and above (Technical +non-technical)	1165500	1010155	155345	19.9%	19.5%	23.0%
Total	5850970	5175168	675802	100.0%	100.0%	100.0%

Source: Authors' calculation from D7 Census, 2011.

Note: 1. 'Literate' includes figures for 'literates without educational level' and 'educational levels not classifiable.'

2. 'Matric/Secondary but below graduate' includes 'non-technical diploma or certificate not equal to degree'.

3. This table excludes migrants whose place of last residence is unclassifiable as Rural or Urban.

4. This table also excludes migrants from outside India.

Roughly one-fifth of the individuals migrating for work during the intercensal period possessed graduate and above degrees implying better opportunities for employment for them at the destination states. However, what is alarming is that nearly one-fifth were also illiterates while 50.1% had studies below graduate level (excluding the technical education not equivalent to a degree). Thus, the likelihood of their employment in informal and unorganised sector for meeting the labour demand for the most poorly remunerated sectors/occupations is expected to be

quite high. The urban employment generation particularly for the aforementioned destination states has been highly informal in nature. As per NCEUS, 2007, about 93% of the workforce was engaged in the informal sector; a number that has been expected to grow. Micro studies have shown, that 'urban growth has been exclusionary and exploitative, leading to the reproduction of poverty and socio-economic inequalities at the work destinations' (Breman, 2013; Shah and Lerche, 2018). This particularly affects the circular migrants who are not even appropriately captured by Census. Thus, the group has remained largely vulnerable with low wages (and savings) and deplorable informal work conditions.

The second major challenge that emerges specifically for the inter-state migrants is the lack of identity as state borders are crossed. The Inter-State Migrant Workmen Act, 1979 intends to prohibit the exploitation of the migrant workers, including but not restricted to, providing wages equal to the workers belonging to the said state, provision of social security benefit etc. It is applicable to principal employer employing five or more migrant workers from other states in the preceding 12 months as well as any contractor who recruits workers from other states. However, the provisions of the Act are largely based in self-registration. This, in turn, exacerbates the issue of identification of the migrant workers as the very identification of these workers undermines the profit maximisation objective of the employers/contractors. The inability to establish their identities in the destination centres then excludes them from the purview of entitlements and social services provided by the state governments. This, in effect, increases their social, economic and political invisibility which is expected to be transferred inter-generationally. Consequently, migrant workers (especially inter-state), more often than not are pushed into exploitative labour arrangements in the urban centres due to lower bargaining power. This, in turn, exposes them to riskier jobs, lack occupational safety etc.

The third major problem has been that inter-state migrants are often excluded from affordable housing, education, healthcare and formal institutional lending. The reasons can not only be traced to the lack of identity documentation but also linguistic, bureaucratic obstacles as well as an anti-migrant sentiment in the destination centres. In addition, greater movement to specific urban centres puts pressure on their resources thereby leading to higher price for housing and other facilities thereby further accentuating the underlying vulnerabilities for the migrant workers. Thus, entry for migrant workers in general but inter-state workers in particular is plagued with substantial inherent disadvantages. Their vulnerable state particularly during the pandemic was, thus, a reflection of the underlying systemic issues that have been affecting this group for years.

3. POLICY INITIATIVES FOR MIGRANT WORKERS DURING PANDEMIC: AN ENQUIRY

Given the aforementioned challenges, there were several policies announced by the government at both central and state-levels, in line with the objective of

arresting, if not alleviating the constantly deteriorating circumstances of the poor migrant population, particularly circular/seasonal migrants and those engaged in the informal sector brought about by the pandemic. Owing to the increasing pressure on the 'net out-migration states', it seems beneficial that the reverse-migrants are incentivised to return to the destination centres. This is because it is expected that the cities with large economic activities, can employ a large number of workers immediately as economy picks up. Further, these centres also have a higher amount of GSDP/GSVA, and tax collections thereby providing them with the necessary fiscal space to not only generate employment but to provide some social security provisions for the migrant workers upon their return.

With respect to the announcements, some essential points of concern have emerged. On March 26, the Prime Minister announced Pradhan Mantri Garib Kalyan Packages (PMGKP) worth of Rs. 1.7 lakh crore. Under PMGKP, some important programmes aimed to directly target the poor. These include cash transfer programme under PM Jan Dhan Yojana for Women, free food for migrant workers with an allocation of Rs. 3,500 crore, Rs. 3,000 crore allocation for cash transfer towards 'senior citizens, 'widows' and 'physically handicapped'; Rs. 17,500 crore package for PM-KISAN as a 'front- loading expenditure' (although the total allocation in budget 2020-21 was Rs. 75,000 crore); Rs. 13,000 crore towards Ujjwala Scheme (a programme to distribute 50 million LPG connections to women of Below Poverty Line families), along with an enhancement of Rs. 40,000 crore for MGNREGS, and Rs. 6,000 crore towards employment for tribals/ adivasis (CAMPA), and Rs. 2,500 crore for Employees' Provident Fund (EPF). Apart from these, Union Government also announced for free food distribution, for 3 months, under the public distribution systems (PDS), health insurance for health and related workers. Further, some funds were also announced for construction workers (around Rs. 31,000 crore), and for District Mineral Fund (Rs. 35,925 crore).

Later, on May 12, 48 days after the announcement of nation-wide lockdown, the Prime Minister announced a package of Rs. 20 lakh crore. It is important to highlight here that only by combining the packages with RBI's infusions, does it sum upto the announced stimulus of Rs. 20,97,053 crore under the Atma Nirbhar Bharat Abhiyan. In fact, only Rs. 1.70 lakh crore were announced from the Union Budget. The remaining came in the form of collateral-free loans for micro-small and medium enterprises (MSMEs) to the tune of Rs. 3 lakh crore, and through Kisan Credit Card around Rs. 2 lakh crore 'concessional credit', RBI liquidity infusion for around Rs. 8 lakh crore, Infrastructure fund of Rs. 1 lakh crore from NABARD, and around Rs. 1.9 lakh crore from other liquidity measures. Consequently, several independent studies have shown that the actual cost to the government is significantly lower than the announced figures. For instance, Barclays Research calculated the cost to Government as only Rs. 1.5 lakh crore, SBI Research Group considered it as Rs. 2.03 lakh crore, CARE Rating as Rs. 2.8 lakh crore, Ernst & Young as 3.08 lakh

crore. Irrespective of variations in the actual cost to Government, it is argued that a large portion of the announced figures constitutes the liquidity decisions of RBI as part of the 'fiscal stimulus package'; the government expenditure and RBI actions cannot simply be summed up together. Thus, the fresh government spending will be considerably lower than the projected amount towards the black-swan event.

Nevertheless, the Union government has attempted to provide a fillip to infrastructure development works under the expectation that these would generate employment opportunities thereby easing the burden on the different 'net out-migration' states. Apart from the loan distribution policies or RBI's monetary infusions, one can group the programmes into food distributions, direct cash transfers, employment generation and health facilities improvement schemes/measures. A brief review of the specific programmes launched by Union Government and as well as various state governments has been presented below.

3.1 Direct Cash Transfer

Several universal schemes were also announced for the vulnerable population groups as whole. The most prominent among them being the **Pradhan Mantri Garib Kalyan Yojana (PMGKY). As discussed above, an allocation of Rs 1.70 Lakh crore** was announced as an immediate relief measure. Though these direct cash transfers are significant, there are no specific schemes at the Union level targeting the migrant workers or workers who have lost their jobs. While their identification is difficult, just after the lockdown was imposed, various panchayat and other local bodies' administrations were asked to collect data on migrant workers; the database, however, is not inclusive at the moment.

Majority states, also announced their own one-time income support to the migrant population in their states as well their migrant workers stranded in other parts of the country. One-time cash support of Rs. 1,000 provided by Andhra Pradesh, Bihar & Haryana announced for a transfer of Rs.1,000 to registered migrant workers while Tamil Nadu government announced a support of Rs 500 to all migrant workers in the state. In West Bengal, 'Sneher Paras' was to *provide ex-gratia financial assistance of Rs. 1,000 through DBT for those migrant workers from the State who were stuck in other states. Similar step for also taken by Jharkhand.* For the 'reverse migrants' to Odisha, the State Government announced an income support of Rs 2,000 per migrant worker subject to completion of quarantine period. Additionally, Punjab Government initiated income support to the tune of Rs. 3,000 to each registered construction worker, of whom migrant workers are a major part, in the State to be transferred to bank accounts directly for which, Rs. 96 crore has been earmarked. The actual disbursement by the state remains to be seen.

Additionally, Bihar and some other states developed emergency apps, and collected data for e-ration card (temporary), which has been used to directly benefit inter-state migrant workers. The primary challenge, however, may not be effective . This is because the benefits (state and union level) are to be transferred through Jan

Dhan Bank account thereby excluding individuals who are out of these databases or do not have bank account or do not have access to bank.

3.2 Immediate Food Provisioning

Another important step has been provision of essential food items, either in cooked form, or distribution through rationing system free of cost. This provided an impetus to revive India's old public distribution system (PDS). Due to the issues of identification and portability of entitlements for inter-state migrant workers, as an urgent measure, the Centre announced provision of 5 kg grain per person and 1 kg chana per family per month for June-July, 2020 to all migrant workers who do not have either a central or state PDS card. Under this, roughly 8 crore migrants were to be benefited and Rs 3,500 crores will be spent on the same, as per the Finance Minister. It has further been argued by Chakraborty and Thomas (2020) that the warehouses of Food Corporation of India (FCI) have surplus food stock so that these requirements can be met with ease without significantly affecting the fiscal space of the Union government.

While the response of the Centre came a litter late, most state governments provided night shelters, free food and essential commodities to but not restricted to the migrant workers. In addition, cash relief of Rs. 5,000 was provided by Delhi government. Telangana provided Rs. 1,500 for all rice card holding families, for buying essential commodities such as groceries and vegetables. Similarly, *Jeevikasamuh* in Bihar, *Prachesta* in West Bengal, as well as other cash transfer programme under National Food Security Act, have been utilised in Madhya Pradesh, Chhattisgarh and in other states. Moreover, Uttar Pradesh went a step further to announce a provision ration cards for all migrant workers.

3.3 Employment Creation

A particularly challenging aspect of the lockdown-induced crisis has been the urgent need for the Union and state governments to ensure employment generation for those have lost their jobs. Although, no proper estimates are available regarding the number of jobless workers, but some gross estimates is about 122 million on April, 2020 (CMIE). In fact some other recent databases also reflect more severe situations even after Unlock 1.0 and 2.0. According to the CMIE statistics on unemployment, the national unemployment rate, in fact, the situation has worsened after Unlock 1.0 and 2.0. The national unemployment rate in the week ended 16 August, reached to 9.1 percent, which was higher than unemployment rate during the week ended August 9, of 8.67 percent (CMIE). Many academicians have pointed out that the distress in rural areas is more severe, as the absorption of labour in agricultural activities could be seasonal and may lead to higher unemployment later, and those migrant worker, who used to be engaged in 'retail and hospitality' sector may face a longer unemployment phase. Consequently, the much-needed employment creation has been announced through two channels – (1) direct state intervention to create jobs for migrant population displaced from their work and (2) in a long-

term perspective, indirect intervention by providing an impetus to the overall economic activities in an attempt to generate employment.

We first look at the policies that aim to create employment for the 'reverse migrants' returning to their native places. For those moving back to rural areas, the rural economies may not be equipped to provide employment opportunities to these return-migrants. Employment generation is low in rural economy because of lack of diversification in agriculture, lack of land reforms, low productivity, lack of mechanisation and other infrastructural bottlenecks. Moreover, due to low penetration of other sectors in rural India, these economies will find it even more difficult to absorb returning migrants particularly already impoverished source centres like Bihar. The proportion of rural population employed in Agriculture as reported by PLFS 2018-19 was 57.8%; only a small section being employed in other industries particularly Construction (13%), Manufacturing (7.8%) and other services (8.3%). While MNREGS could act as a buffer, given the decline in the rural economy, coronavirus and the reverse migration, it may not be able to accommodate the increased demand in the present form. Consequently, in a pre-emptive action, the Centre increased the budget for MNREGS by Rs. 40,000 crore over and above 2020-21 budget allocation of Rs. 61,500 crore. As per Finance Minister, it was expected to generate nearly 300 crore person days employment addressing need for more work including returning migrant workers in the monsoon season.

Though this boost is welcome, there are several issues. Firstly, the Rs. 61,500 crore budgeted this year was already an underestimate. In FY'20, actual spending for the rural work programme was Rs. 71,000 crore. Secondly, pending liabilities continue to plague the scheme. Even from this higher allocation of Rs. 1,01,500 crore, almost Rs. 11,000 crore will have to be used to clear dues of last year. Thirdly, no increase in mandated number of day's employment has been announced. In fact, only 7.3% of the total households employed could avail the mandated 100 days of work in 2019-20. Moreover, the actual work provided as a percentage of the total household demand has been continuously decreasing since it peaked in 2011-12 (99%) to 93% in 2013-14 and decreasing even sharply to 88% in 2019-20. Given the extent of already existing demand pressure and the expected high increase in the next few months, the higher allocation of funds seems miniscule.

Nonetheless, some laudable steps have been undertaken by the state governments of large source centres have been announced. For instance, Chhattisgarh sanctioned a net amount of Rs. 101.51 crore for the development of 704 Gram Panchayat Bhawans under MGNREGA and RGSA, in the newly constituted Gram Panchayats. In Jharkhand, in the Birsa Munda Harit Gram Yojana, under MGNREGA, an honorarium of Rs. 19,400, for 100 workdays, will be given to Bagwani Mitra appointed in every village for protection of plants and trees. Initiatives to provide relief to migrant workers: Migrant workers and daily wage earners have faced the brunt of the lockdown in terms of loss of job opportunities, income loss, lack of proper shelters and food.

A primary policy announcement for return-migrants and rural population has been the launch of a large rural public works scheme of 125 days - PM Garib Kalyan Rojgar Abhiyan (PMGKRA). Rs. 50,000 crore have been allocated for a concentrated implementation in 116 districts of 6 states wherein the proportion of reverse migrants is quite high. These states include Bihar, UP, MP, Rajasthan, Jharkhand and Odisha; all being primary source centres of labour to other states. In 2011, the total out-migrants from these states combined was 29.5 million; a number that is expected to have increased till 2020 given the burgeoning regional disparity. There are 25 works to be implemented under the scheme PMGKRA, which largely constitute activities aimed at building local rural infrastructure like plantations, provision of drinking water through Jal Jeevan mission, rural housing for the poor, community toilets, rural mandis, rural roads, other infrastructure like cattle sheds, anganwadi bhavans etc. This is a significant step towards meeting the twin objective of providing demand stimulus on one hand and creating much-needed rural infrastructure on the other.

At the state-level, a significant step has been taken by the UP government which has been particularly affected by the 'reverse migrants' as UP is the largest supplier of labour to other states. Atma Nirbhar Uttar Pradesh Rojgar Abhiyan, has been announced in June,2020 to create employment for migrant workers of UP who have recently returned back to the state. The programme is expected to provide employment to 1.25 crore people spread across 31 districts of the state, through the Common Service Centers and Krishi Vigyan Kendras. The primary objective of the scheme is to 'provide employment, promoting local entrepreneurship and creating partnership with Industrial associations to facilitate further employment opportunities'. However, no such policies have been formulated at the state level for other large source centres like Bihar and Rajasthan that are expected to have a sudden influx of return-migrants recently.

Notwithstanding, we are yet to witness specific policy announcements aimed to incentivise the migrant workers to stay at the destination centres or in future, to curb the extent of wilful reverse migration. It can, though, be argued that the objective behind the launch of Atma Nirbhar Bharat Abhiyan is that the revival of manufacturing sectors, especially labour-intensive small and medium enterprises and that of agriculture may increase the employment opportunities and overall consumption of the economy, especially rural economies, thereby resulting an inclusive growth across all states. These policies include Rs 3 lakh crore collateral free loan to MSMEs, Agricultural Market Reforms intended to create 'One nation, One Market' through amendments in the Essential Commodities Act, 1955 etc. These schemes can serve as possible sources of employment not only to the current residents but also incentivise the 'city makers' to return to the destination areas. Nonetheless, due to huge fall in demand for many products, and adversely affected supply chains, collateral free loans alone may not help as an immediate measure to revive employment.

There is now an urgent need for employment provisioning schemes for the urban and semi-urban areas as they were the worst hit in the initial pandemic wave. One possible channel of employment generation could be green-field infrastructure projects. As the Union Government has already allocated in the current budget for many infrastructure development projects under the Central Sector Schemes, such as Road Works, Metro Projects, Construction Works for Army, Track Renewals etc. to the tune of Rs. 48,759.13 crore, Rs.17,482 crore, Rs. 6,061.67 crore and Rs. 10,599.47 crore respectively, along with works under National Highways Authority of India, which have an allocation of Rs. 42,500 crore in the same budget. This will serve the twin objective of creating infrastructure that improves productivity as well as provide spending power to low-skilled workers affected by the lockdown. This is particularly necessary to revive the overall demand in the economy for a much-needed Keynesian push to the economic activities.

3.4 Social Security

An essential requirement especially after the pandemic, over both for short and long-term horizon, is the provisioning of basic social securities among migrant workers. The pandemic served as a boon in disguise by bringing the issue of non-portability of entitlements particularly for migrant workers to the forefront of public discourse. As an immediate step, an expeditious switch to 'One nation, one ration card' was initiated. Under this, ration cards are to be made portable to allow migrant workers to access Public Distribution System (Ration) from any fair price shop in India by March 2021. Around 67 crores beneficiaries in 23 states covering 83% of PDS population will be covered by national portability by August, 2020, as per the Centre. The emphasis, however, has exclusively been access to PDS while other types of social security, for instance, liveable accommodations, minimum health securities, proper nutrition, decent working hours, along with ensure minimum wages etc., have largely remained outside the ambit of the government intervention.

To address the challenges faced by the urban poor including migrants, an affordable rental housing scheme under the Pradhan Mantri Awas Yojana (PMAY) has been announced. This is intended to provide them with access to quality accommodation and security to encourage these workers to not return to their native places in a crisis like COVID-19 in the future. For this purpose, government-funded housing in urban areas/cities will be converted into Affordable Rental Housing Complexes (ARHCs). This will be through the public-private partnership (PPP) model. Moreover, government housing complexes lying vacant are also to be converted for renting to migrants at concessional rates. The government also aims to incentivise industries, manufacturing units and institutions to develop AHRC on their unutilized land. While these steps are appreciable, there have been no steps taken yet in the direction of provision of social security for migrant workers in particular, or informal workers in general.

The direct cash transfer has been a positive initiative for a large section of these individuals though the reach of any direct transfers targeted towards migrant workers has been severely limited by decades of lack of migrant enumeration. Moreover, methodological issues have kept circular workers outside the ambit of 'migrant'. However, self-declaration required by the states for direct benefit transfer has provided some relief in this regard. Notwithstanding, it is argued that the policy responses to COVID-19 have largely been restricted to already operational programmes like PMGKP, PM-KISAN and MGNREGS. However, these constitute less than 0.7 percent of the then estimated GDP. One could argue that as the COVID-19 crisis is expected to cause substantial reduction in GDP during the financial year, their share in the actual GDP would actually be much higher. Yet, in absolute terms, the amount remains miniscule relative to the herculean problems caused by the crisis. It is important for both the centre and state should improve their expenditure share among these programmes.

4. CONCLUDING ARGUMENTS AND FURTHER CHALLENGES

It hardly needs emphasis that labour mobility and the consequent labour market flexibility is a crucial pre-requisite for any of the economic growth trajectory of any country; internal migration being a predominant channel for the same. India has been no exception in this regard. However, the inter-state migration in India has been largely urban-centric and driven by the growing regional disparity. The Census 2011 Migration data reflects that a large proportion of inter-state migrant workers possess low education levels. Coupled with low bargaining power, and Agrarian distress, it has led to a disproportionate share of migrant workers to be engaged in low-skilled informal occupations at a few urban centres. Their lack of social protection, decent work, enumeration and entitlements in the destination centres have been significant areas of concern. Against this backdrop, a collapse of production activities in these centres as a direct consequence of the pandemic (and the lockdown) instigated a chaotic state of reverse migration particularly to the 'net out migrant' poor states. Many lives were lost while cities remained on lockdown and many more are expected if job loss is not arrested or economic provisioning not undertaken. The foregoing discussion reflects that several Union and State-level initiatives have been announced.

It can be argued, the fiscal space of both Union and State governments needs to be increased in the wake of increasing pressures brought on by the pandemic and fall in GDP. In this respect, firstly, rationalization of unwarranted non-merit subsidies, for which the under-recovery of costs cannot be justified by the public interest rationale, could free up considerable additional fiscal space. Mundle and Sikdar (2020) estimated that these stood at over 5.7% of the GDP. A crucial point to note, however, states provide the majority share of these subsidies, over 4.1% of GDP. Consequently, a rationalisation is warranted at not only by the Centre but also, and even more so, by the states. Secondly, reduction in tax exemptions

and concessions, as a short term measure, could help in increasing the fiscal space. In fact, in 2020-21, the revenue forgone on tax exemptions and concessions was roughly 5% of GDP (Annexure 7, central government receipts budget, GOI 2020). Finally, greater efficiency in public spending could also serve as a potential source. As per CAG, the unspent amount was roughly 1.5% of the GDP in 2020. Considering there lower bound estimates, the potential for additional fiscal space is as high as 12.2% of GDP. Other measures could include reduction in concessions provided for many corporate sectors (at least those that reported profit during these periods).

The major challenge for the State finances, however, remains the expected steep fall in GDP during the financial year and the consequent fiscal strain. As per the recently released GDP estimates announced by Ministry of Statistics and Programme Implementation, Government of India, at constant prices (2011-12) GDP for Q1 of 2020-21 over Q1 2019-20 has shown a considerable contraction of 23.9 percent; at current prices the contraction is 22.6 percent. Given this, not only is the economic recovery expected to be sluggish but the fiscal space for recovery is expected to be low. Noticeable drop in GST collection, and the worsening Centre-State conflict over GST compensation are clear indicators of intensifying fiscal stress. Thus it is pertinent that steps are taken to ensure efficient utilisation of the announced packages i.e., fiscal marksmanship while simultaneously focussing on creating the necessary fiscal space for both levels of the government, and to ensure the social securities for the low earnings workers, especially the migrant workers.

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Labour & Development, Vol. 27, No. 2, December 2020

LIVELIHOODS OF LABOURERS IN INDIA'S GARMENT INDUSTRY

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This article aims to explore the lives of those who labour in India's garment sweatshops so as to expose the processes and mechanisms of exploitation that characterize the same. It is situated in Noida, a satellite city to Delhi, and one of the major hubs of garment manufacturing in India. Beginning on the sweatshop floor, it demonstrates the ways through which time spent labouring is maximized. Patterns of labour circulation in the garment industry are then outlined to indicate the highly circulatory nature of the workforce. Lastly, an analysis of the household reveals the deplorable living conditions of workers. Through the concept of housewifization, the double exploitation of women is highlighted, as the gendered division of labour from the household is replicated in the workplace. It is thus argued that the garment industry passes on the risks associated with the volatile nature of the industry to its labourers by eschewing from costs of social reproduction and exacerbating their vulnerability.

Keywords: *Garment Industry, Labour Circulation, Labour Exploitation, Livelihoods.*

1. INTRODUCTION

The garment industry has long been a major protagonist in India's development story. From Indian Ocean Trade Networks to both colonization and anti-colonial struggles, cloth is woven into the very identity of the country, lending it its global character (see Riello and Roy, 2009; Bayly in Appadurai, 1986). One of the foremost reasons attributed to its success has been the notion that India's vast reserves of cheap labour give it a comparative advantage (See Ghemawat and Patibandla, 1998; Burange and Chaddha, 2008; Lu and Karpova, 2011; Haque and Thaku, 2015). Such a notion posits cheap labour as a 'natural' resource of developing countries, where large populations of 'unskilled' labourers are assumed to be willing to work for low wages. This cheapness is however, far from natural. It is produced (and reproduced) by various processes and mechanisms of exploitation of labour.

This article explores and exposes the processes and mechanisms of exploitation that produce 'cheap labour' in the garment industry, and the toll this cheapness takes on the lives of garment workers. Currently responsible for 13% (2017-18) of India's exports, and comprising a 2.3% share of the GDP (2016-17) (Ministry of Textiles, 2019), the garment industry becomes a crucial site of exploration in light of the coronavirus outbreak. Comprising largely of migrant workers, this

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article lays bare the livelihood conditions of one of the worst affected sections, highlighting the structural nature of their vulnerability to such crises.

2. CONCEPTUAL FRAMEWORK

Labour Regimes

Processes and mechanisms of exploitation are best understood through the lens of 'labour regimes', thereby forming the overarching framework to this study. Labour regimes refer to assemblages of capital-labour relations that structure conditions of work (Li, 2017). Burawoy (1985) uses the term 'factory regime' to draw attention to the broader national and international relations of production that structure capital-labour relations in an industry. Through her comprehensive account of the garment industry in India, Mezzadri (2017) illustrates how different regimes of labour operate with their specific formations, of both capital and labour, with respect to different commodities. It is in this context that she theorizes the sweatshop regime. Here, labourers and the commodities they produce, which are organized across factory and non-factory realms, are controlled by multiple global, regional and local elites. Taking the sweatshop as an entry point, she accounts for the broader networks of exploitation that characterize the workers' lives[1].

Exploitation on the Shop Floor

Marx's analysis of the extension of the limits of the workday becomes crucial to illustrate the multiple techniques and mechanisms that work to extract surplus labour on the shop floor. In his seminal text, 'Capital Volume 1'(1867), Marx highlights how the extraction of surplus labour from workers is premised on the maximization of the length of the working day. Since surplus value is derived from the time beyond which the labourer produces the value of their labour power, this time (which ends up being unpaid labour for the capitalist) is then extended.

On the shop floor, the responsibility of extracting surplus labour and disciplining workers falls on intermediaries who are either 'managers' or 'supervisors'. They are responsible not only for extracting surplus labour of others, but providing surplus labour of their own (Livingstone, 2012). As highlighted by Wright (1978), these intermediaries are often nominal supervisors who lack actual control over the production process. Their role is largely confined to the implementation of decisions made by others. They perform the "control and surveillance of the labour process to ensure capital accumulation" (Livingstone, 2012, p. 55).

Here, Foucault's conceptualization of surveillance becomes important. In Discipline and Punish (1975), he talks about how the creation of modern institutions such as the church, schools, hospitals, and the military focussed the disciplinary powers of societal rules. This induces a state of permanent visibility and consciousness

[1] Significant work on labour regimes and their relationship with unionization has been done by Anner (2015).

which demands the constant self-regulation[2] of one's behaviour in accordance with social norms. The role played by the spatial organization of the factory to ensure surveillance thus becomes necessary to examine. Tracing the very origins of the factory, Schoenberger (1997) highlights how the factory space is deliberately designed to maximize efficiency and allows the capitalist the ability to control work so as to ensure the generation of surplus. Factories made possible a new kind of time discipline that in turn entailed a spatial discipline, whereby workers were assigned specific places in the factory and their movement within it was strictly supervised and constrained.

Patterns of Labour Circulation

Deplorable conditions of work are inevitable for the millions that form India's garment workforce as exit from one sweatshop simply means entry to another. Breman's conceptualization of 'footloose labour' illustrates how the garment industry is comprised of a highly circulatory migrant labour force. As per Breman (1996), footloose labour is characterized by circulatory patterns of labour migration, whereby workers move from one place to another in search of work. Unable to afford living in the cities they migrate to, they ultimately return to their villages which are unfortunately depleted of work that they can earn a livelihood from.

The existence of footloose labour is closely linked to patterns of casualization of labour. Arnold and Bongiovi (2013) define casualization as a "regular, quasi-permanent employment to the use of workers in short-term employment arrangements" (p. 296). As per Standing (2008), casualization may manifest as a shift from regular to casual categories, or a "gradual weakening of the conditions that characterise regular employment, so that regular employment takes on the character of casual, in all but name" (p. 24).

Breman (2005) also draws attention to the role played by labour contractors in the circulation of the labour force through his conceptualization of 'neo-bondage'. He defines neo-bondage as referring to "impersonal and short-term bonds of imposed immobility which do not stretch beyond the sphere of work and which in the mindset of the labourer do not entrap him forever at the work site" (p.2505). Lerche (2007) has identified the use of neo-bondage in India as allowing for more effective exploitation of seasonal migrants, tying them to the employment relation.

Social Reproduction of the Workforce

In order to completely reveal how deep rooted the processes of exploitation unleashed by the sweatshop are, it is necessary to journey into the household and account for the social reproduction of the workforce. It is only in doing so that the

[2] While scholars such as Arnold (2003) have explored the usage of self-exploitation with respect to the factory, such a conceptualization does not adequately account for the role played by spatial dynamics in disciplining labour. This is not to say that exploitation does not play a role in the sweatshop (which forms the very premise of the article), but to highlight the mechanisms through which labour is controlled.

exacerbation of pre-existing patterns of labour unfreedom[3] by the sweatshop can be highlighted, thus illustrating how the exploitative conditions of work in the garment industry structure the lives of labourers.

Outlining the large number of health impacts the drudgerous and toilsome nature of garment work have, Mezzadri (2017) argues that "processes of externalization of costs of reproduction by capital and of serious depletion of the labouring body often go in tandem, reinforcing each other" (p.165). According to her, the primary raw material used by the sweatshop is the body of the labourer and garment production is contingent on the wear and tear of labouring bodies.

Federici (2004) outlines the instrumental role played by the body in capital accumulation. Through her description of the witch hunts, she illustrates how female bodies have been the canvas for the expression of male power and domination. Arguing that the human body was the first machine developed by capitalism, she further elucidates how the transition to capitalism required a redefinition and fixing of gender roles in a manner that allowed for the gendered division of labour to operate. This was far from a natural process as arguments in favour of biological determinism state, but was created with great violence and state intervention as evidenced by the witch hunts.

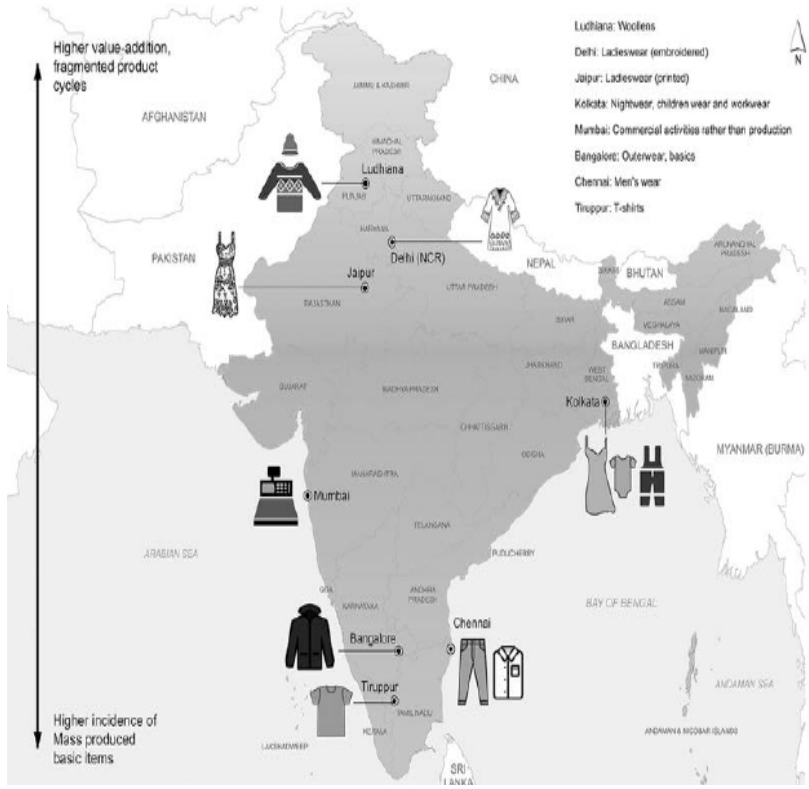
Exploitation of women's productive and reproductive labour is thus the building block to capitalist accumulation, an argument seconded by Maria Mies. In 'The Lace Makers of Narsapur' (1982) Mies advances the concept of housewifization which is particularly useful to further explore the gendered nature of these social relations. As per Mies, the pervasive perception of women as 'housewives' works to obscure actual conditions of production wherein women's labour is invisiblized. Such an understanding of women as housewives works to invisibilize their productive labour, resulting in lower wages, as well as their reproductive labour in the household. Thus, women provide a double subsidy- in terms of wages for productive labour, and free reproductive labour for men and children. She argues that this invisibilized labour in essential to capital accumulation. Not only does it subsidize women's productive labour, it also externalizes costs of social reproduction.

3. RESEARCH METHODOLOGY

Scope

The garment industry in India is characterized by specialized industrial clusters which largely comprise networks of Small and Medium Enterprises (SMEs). These industrial clusters are concentrated in eight key zones- Delhi NCR, Jaipur, Tiruppur, Ludhiana, Kolkata, Mumbai, Chennai, and Bangalore (AEPC, 2009). Clusters located in different regions of the country specialize in different kinds of garments (eg. woollens in Ludhiana, ladies-wear in Delhi NCR, cotton T-Shirts in Tiruppur).

[3] For detailed arguments on labour unfreedom see Brass (2003), Banaji (2003), Lerche (2007).



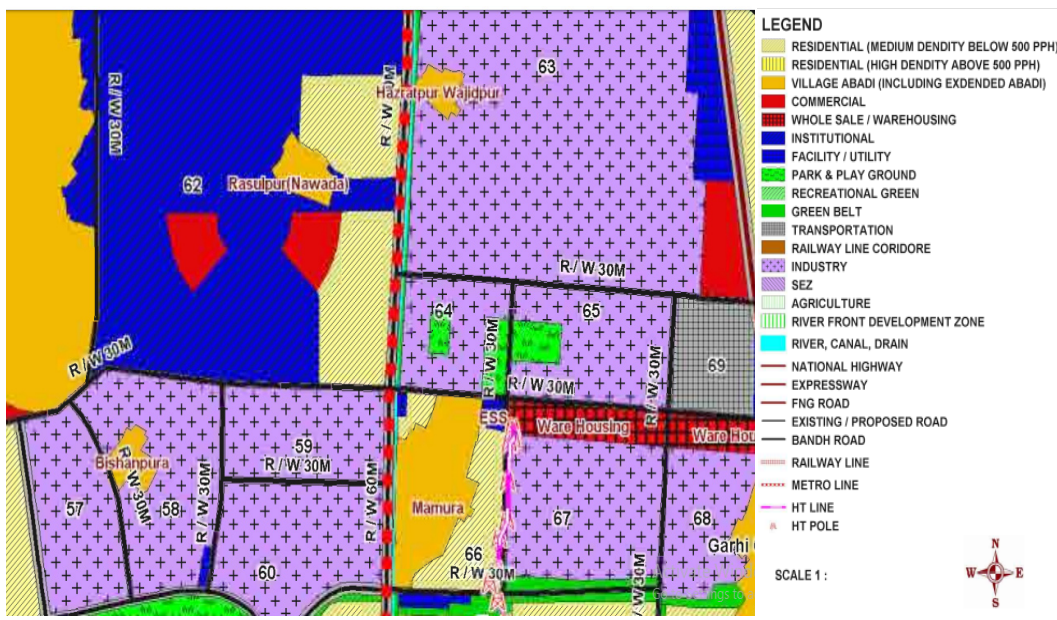
Source: The Sweatshop Regime (2017).

As indicated in the map above, levels of specialization, value addition, and fragmentation increase as we go north. Here, the industrial cluster in Delhi NCR becomes an interesting case in point, as it specializes in embroidered ladies-wear which is particularly labour intensive (Mezzadri, 2017) given its complex production process (Roy, 2009). Garments produced in NCR compete with Bangladesh, Cambodia, Vietnam, Sri Lanka, Pakistan and Indonesia, selling products to Europe or USA including brands like H&M, Zara, GAP, Diesel, Adidas, Pantaloons, as well as high fashion brands like Isabel Marant, Michael Kors, among others (ibid). Accordingly, this study is situated in Noida, a prominent industrial hub in the Delhi NCR region.

An acronym for the 'New Okhla Industrial Development Authority', Noida was set up in 1967 under the Uttar Pradesh Industrial Area Development Act. A peri-urban area on the South Eastern border of Delhi, it is a satellite city conceived as a space to promote industrialization and reduce the building population pressure on land in Delhi. Potter and Sinha (1990) outline industrialization as one of the key factors driving Noida's creation. Interestingly, they argue that although developing satellite cities in order to decentralize populations is a common planning strategy, what makes Noida special is that it was developed to house small industries in the informal sector that were operating in an illegal manner in

Delhi. The garment industry is closely linked to Noida's development, drawing the first set of entrepreneurs and white collar professionals to the area.

Previously a cluster of around fifty villages, Noida today is a hub for the garment sector, given its status as a Special Economic Zone (SEZ). Falling under the state of Uttar Pradesh, it is governed by different laws that the rest of NCR (which fall under the state of Haryana). This becomes particularly relevant in light of the coronavirus outbreak, with the UP government announcing further relaxation of labour laws in the state to incentivize production (See Jha 2020; Hasan 2020). Additionally, Noida has the monthly per capita expenditure reported by workers in the NCR (Mezzadri and Srivastava, 2015).



Source: Noida Master Plan 2031 (Draft).

The purple areas in the map above are industrial clusters. Of these, the Sector 63 to Sector 65 belt has the highest concentration of garment export factories in Noida. Nestled right in the middle of the industrial area, Mamura Village has been identified as comprising a residential area for garment workers who tend to live in close proximity to factories (Ngai and Smith, 2007).

Research Design

In order to explore how exploitative conditions of work within the garment industry structure the lives of workers, a sample of 17 respondents currently employed in garment industries, residing in Mamura Village, Noida were identified using a mixture of purposive sampling and snowballing. Limiting the sample to only garment workers falls in line with the attempt to study what Mezzadri calls "capital through the eyes of labour" (2017, p.12). Their designations include stitching (35%),

thread cutting (18%), sampling work (12%), hand work (6%), adda work (6%), operating machines (6%), as well as checking (12%) and industrial engineering (6%), which are largely supervisory positions.

All the respondents are migrant workers, hailing either from UP (59%), Bihar (29%), or West Bengal (12%). 59% of my respondents are female and 41% male; 53% are Hindu and 47% Muslim. 53% respondents fall under the general category, and 47% belong to OBC communities. The age range of the respondents is between 17 and 49 years. Despite the presence of an underage worker, child labour is beyond the scope of this study. Including her, 12% of respondents are teenagers, 47% are in their 20s, 24% in their 30s, and 18% in their 40s. 65% of the respondents are married and 76% are literate.

The analysis presented in this article is based primarily on fieldwork conducted in the months of February and March 2020. Although it was intended to be carried out all through March, it ended abruptly after the first two weeks due to the coronavirus outbreak. Data was collected through extensive structured interviews including both qualitative and quantitative questions. This was augmented by informal interactions with other residents of the area and non-participant observation. Additionally, observations from field work conducted in November 2019 in two export houses in Noida are drawn upon to substantiate descriptions of sweatshops (which are located within export houses). Secondary data was obtained through extensive literature review. Data was analysed by organizing it thematically with respect to their socio-economic backgrounds, occupational histories, current conditions of work, current livelihood structures, and household particulars including monthly income and expenditure. These themes allow for a detailed insight into the lives of labourers, establishing the relationship between their current conditions of work and its impact on their livelihoods.

4. DATA ANALYSIS

4.1 On the Sweatshop Floor

Maximizing Time

A series of steps are taken to maximize the amount of time workers spend in the sweatshop. This begins right as they enter, through the imposition of *harsh penalties for being late* where workers are sent home (losing a whole day's salary) for reaching later than 10 minutes[4]. 65% of respondents stated that they are penalized for arriving late, with a maximum grace period of 15 minutes. Another 12% are also similarly penalized, but only after repeatedly coming in late for a few days. These penalties are usually in the form of a cut in their wages-ranging from half an hour's pay to half a day's, to being

[4] One respondent noted that being late by even a minute would result in the loss of half a day's pay and being forced to work two hours overtime, while another was made to work the night shift to compensate.

forced to take a leave[5]. The remaining respondents report softer penalties in the form of scolding. However, even among them, no one would reach beyond 10 minutes late[6].

Another particularly cruel technique is to place *restrictions on drinking water or using the bathroom*. 41% of respondents noted such restrictions. For some, these were temporal (e.g. one visit per hour), for others they were target dependent (e.g. do whatever after finishing 130 pieces).One respondent reported that her supervisor would note precisely how late workers arrived, how much time they spent drinking water and using the bathroom, and add it up so as to subtract up to Rs.200/- from their total pay at the end of the month. This adds detail to Mezzadri and Srivastava's (2015) finding that "toilet breaks are short and monitored" in the NCR (p.126)[7]. The only *break* from work consistently reported by all respondents was a strict half hour for lunch. For 24%, this was the only break they got throughout the working day, while the rest would get an additional 15 minutes for tea in the evening[8]. These 15 minutes were in some cases cleverly located in the time between the ending of the working day and the beginning of overtime[9]. Workers were also discouraged from talking to each other, serving the additional purpose of preventing unionization[10].

These attempts at maximizing time spent working are not limited to the traditional 8 hour work day, but are then stretched to their maximum capacity. While differentiating it from the garment clusters in Chennai and Bangalore, Mezzadri (2017) describes overtime in NCR as "chronically systemic" (p. 89). In line with the same, a whopping 94% of respondents reported working *overtime*. Only 12% of them were paid the legally mandated double rate[11]. Such an extension of the working day is further augmented through *night shifts* worked by 29% of respondents. Two

5 Such a strategy of forcing workers into "taking" a leave posits the act as the responsibility of the worker, and cuts down on their already sparsely granted days off of work, which are then ultimately used to serve the larger interests of capital.

6 The only exception is the Industrial Engineer who simply needed to inform her superiors in advance.

7 Ashraf (in Prentice and De Neve, 2017), Begum et al. (2008) and Akhter et al. (2010) have found similar strategies being used in Bangladesh. They also highlight the inadequacy of the number of washrooms located in factories and how this disproportionately harms women who are more prone to Urinary Tract Infections (UTIs) and need to change sanitary napkins. Mezzadri (2017, p.88) describes how stereotypes such as women needing less toilet breaks than men allow for higher rates of surplus extraction and further cheapen female labour.

8 This is also in line with Mezzadri and Srivastava's (2015) findings.

9 Ashraf (in Prentice and De Neve, 2017) also finds such a placement of breaks in Bangladesh, but these are preceded by one hour long lunch breaks.

10 Author's fieldwork. Workers were also discouraged from talking to each other, serving the additional purpose of preventing unionization. See Roychowdhury (2005); De Neve (2008); and Jenkins (2013) for labour unions in India's garment industry.

11 One of them was in a managerial position.

respondents reported working from 9:00 a.m. to 1:00 a.m., and one till 4:30 a.m. Of those who don't, 53% are female and thus not allowed to work beyond 8:00 p.m., and 12% are in managerial positions. When even the working day doesn't suffice, *weekends* are added. 29% respondents don't get Sundays off[12]. Another 23% technically get a leave on Sunday[13] but are incentivized to work on Sundays through double pay. In effect, as long as the factory is open, labourers are made to work.[14]

In this maximized time, the amount of labour to be performed by workers is also increased. One of the most widely prevalent techniques of enforcing high workloads is through the imposition of *targets,* which allows for the monitoring of productivity. 53% of respondents work on targets[15]. Of those who don't, 12% explicitly mention how many pieces they finish per day. One respondent attributes the lack of targets to making 'high quality' pieces. In some factories, high fashion brands have separate sections within the premises[16], resulting in the same factory having different rules for workers in different sections. Another respondent attributes the lack of targets to making "heavier pieces". These findings indicate that the specificities of the garment being produced, as well as the specificities of those it is produced for, impact the nature of the work and the workload (Mezzadri, 2017).

These targets are pushed even further through the imposition of a sense of *urgency* on orders, which give legitimacy to demands for even faster working speeds. One respondent commented that she does two hours of work in one hour if the piece is urgent. When asked how often they have to work on urgent orders, another commented that it is a daily affair. The notion of urgency as an exceptional circumstance obscures the normal nature of a heavy workload[17]. 29% respondents specifically pointed towards such heavy workloads as a daily occurrence. Among those who didn't, a heavy workload was understood as part and parcel of working, "If one doesn't work hard then what will one get?" Lastly, 24% of respondents said that they also have to clean the tables and machines when they get to work. Processes of extraction of surplus labour from garment workers thus may even go beyond doing actual garment work.

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12 These include all daily wage respondents plus one who works on piece rate. One respondent said that she'd go to work on Sunday so that she would get a holiday for Holi.

13 Of the 42% who do get weekends off, 18% are in managerial positions.

14 This is often through informal mechanisms, as seen in Paana Didi's case where her manager stood on the gate to call her to work.

15 High workloads are also incentivized through notions like "better workers get more work and heavier work", as reported by one respondent.

16 This was observed during fieldwork conducted in November 2019.

17 Additionally, one of the interviews had to be cancelled because the respondent was suddenly called to work due to an "urgent" order, illustrating the unpredictable nature of garment work.

Supervision

The onus of maximizing the work day and the labour performed therein falls on the Supervisor. By persistently shouting at workers throughout the day, they create a constant sense of pressure to push workers to work faster. 59% of respondents report being scolded by their Supervisors. Additionally, 29% of respondents noted that their Supervisors would tell them to leave if they failed to meet their demands[18]. This constant threat of firing looms on workers' heads, reminding them of their insecure employment status, and trapping[19] them in such hostile conditions[20].

Ashraf (in Prentice and De Neve, 2017) argues that while certain supervisors use threats and violence as techniques to control labour, others instead assume paternalistic roles, touting constant scolding as an act of care. This is the case with 23% of respondents, one of whom literally describes her supervisor as a "big brother". Breman (2005) describes how the jargon of kinship networks is operationalized to elicit "qualities of intimacy, trust and empathy" from workers, "They tell them that, like good relatives, it is their duty to turn up whenever their presence is required and to work according to the needs of the moment, for a few hours only or deep into the night" (p. 2503).

Space and Self-Regulation

Techniques used by Supervisors to gain workers' trust 'manufacture consent' on the sweatshop floor (Burawoy, 1979). The social construction of the factory space aims to ensure discipline, surveillance, and profitability. Schoenberger (1997) highlights how the factory space is deliberately designed to maximize efficiency and allow for the ability to control work, ensuring surplus generation. The infrastructure of surveillance greets 76% of respondents as soon as they enter the workplace in the form of biometric punching machines, cameras, registers, computers, and even facial recognition software. Additionally, efficiency rates are exhibited on walls and markers of 'most efficient' and 'least efficient' are placed above workers' desks[21]. The manager's offices are all located to ensure maximum supervision[22].

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[18] During fieldwork conducted in November 2019, one manager jokingly described her job as requiring "using the hunter to get work done".

[19] In his work on the garment cluster in Tiruppur, De Neve (2012) quotes his one of his respondents as likening factory based work to working in a jail (p.10).

[20] Ashraf (in Prentice and De Neve, 2017) also highlights the use of "fear" and "pressure" as labour subjugation techniques in Bangladesh's garment industries.

[21] This was observed during fieldwork in November 2019.

[22] De Neve (2012) illustrates how CSR initiatives encourage Fordist modes of production organization, which work to depoliticize health and safety of workers (Ashraf in Prentice and De Neve, 2017), and are ultimately incompatible with any truly pro-labour agenda (Mezzadri, 2014).

In Discipline and Punish (1975), Foucault argues that the creation of modern institutions has led to the human body existing in a self-regulatory relationship with society. Drawing from this, Ranade (2007) illustrates how socio-spatial constructs play constitutive roles in the production and reproduction of social relations, arguing that the collective performance of certain identities in a given space on a daily basis becomes hegemonic. This hegemonic everyday performance in the factory induces self-regulatory tendencies as "bodily experiences of surveillance and discipline are directly shaped by the labour intensive production regimes of the garment sector" (Ashraf in Prentice and De Neve, 2017, p. 261).

Instances of self-regulation can be traced among 71% of respondents. In the aforementioned section on penalties for being late, it was noted that 29% of respondents would never be late to work despite the lack of penalties. One respondent, a checker, said that he *must* check a minimum of 2000 pieces a day, as a decision "one has to make of their own volition, whether there is work or not, so that no one can say anything". For another checker, self-regulation was a result of self-identification with the company, "We cannot afford to make mistakes because our company will get insulted. As our company progresses, so will we."

As workers internalize exploitative work conditions, self-regulation absolves the factory of creating them. As stated by Mezzadri (2017), workers were "asked to become managers of their own labouring body, and were made in charge of protecting it against the harshness of their toil for others" (p. 181). They may thus justify the harsh treatment they face. One respondent justified the inability to talk during working hours as hampering her ability to work, while others stated the guilt of jamming work for other people. Notably, there was a pervading understanding that using the bathroom-the only place in the factory without cameras-was equivalent to time-pass. As per one respondent, "many ladies go to the washroom to chitchat, *but I don't*. They stay in the washroom for half an hour, talk on the phone, then they get scolded." Another respondent advances a differentiation between a 'good worker' and a 'bad worker', identifying herself with the former, arguing that "If the master's work isn't done then he is bound to shout." It is interesting to see how self-regulatory tendencies manifest as a matter of duty for checkers, whereas for workers they justify harsh working conditions.

The existence of self-regulatory tendencies among workers is testament to the inescapability of exploitative work conditions, such that workers are left with little choice but to internalize them. For most garment workers, the exit from one sweatshop only means entry into another sweatshop. The following section shall illustrate the same by elucidating upon patterns of labour circulation in the garment industry.

4.2 Labour Circulation in the Garment Industry

The labour employed by the garment industry is highly circulatory. The section that follows shall describe the patterns of recruitment that characterize workers' entry to the sweatshop, their movements across sweatshops, and the routineness of their exit(s) from the sweatshop, thereby outlining the volatile nature of the industry and how a circulatory labour force is essential to it.

Labour Recruitment: Entry to the Sweatshop

For most respondents, entry to the sweatshop was a result of them going to the industrial area and asking for work[23]. A staggering 71% of respondents reported that they were employed directly by the company. However, one respondent noted that he was interviewed and hired by a contractor who tells them what work is to be done in the factory. Another respondent used the terms '*thekedaar*'[24] and Supervisor interchangeably. A third respondent, who reported being employed by a labour contractor, said that she met the contractor at the company. These findings hint towards some form of *in-contracting* at play.

Mezzadri (2017) highlights how, "through the eyes of labour, contracting appears as a greatly segmented order, and arguably a rather chaotic one", complementing the findings of this study (p.171). This chaos works to obfuscate chains of command, imposing multiple layers of hierarchy, thereby rendering workers unable to hold anyone accountable for unfavourable decisions[25]. Previous sections of this study have established the crucial role played by Supervisors in disciplining workers and extracting surplus labour. However, this supervisory role falls under the purview of the checker, the line man, the line Supervisor, the floor manager, the production manager, the master, among others - each of whom can then pass responsibility across chains of command[26]. The additional presence of in-contracting thus adds yet another layer of confusion to this already chaotic setting.

As the role of the labour contractor with respect to controlling labour is deemed more important than that of supplying labour[27], *kinship networks* play an instrumental role in workers approaching certain companies. 53% respondents joined companies which their kin were employed in or recommended. Beyond kinship networks, garment workers themselves would also end up being asked to bring more workers. Factories relied on workers to bring in people they know to

[23] Export houses tend to have boards on their gates displaying whom they are looking to hire and the rates they are willing to pay.

[24] Labour contractor

[25] One respondent reports being scolded for working slowly by an *in charge*, who mellows down when the *manager* asks him to, while a *guard* monitors the amount of time she spends in the washroom, as per which her *supervisor* cuts money.

[26] It is important to note that multiple positions in this chain of command may belong to 'nominal supervisors' who merely communicate and implement orders and do not have any actual decision making capacities (Wright, 1978; Breman, 2005, Livingstone, 2012; De Neve 2014).

[27] See Mezzadri (2017, p.132-158; p. 171-172)

work, as is the case of two respondents where one asked the other if she would like to join work so that she can earn some money[28].

The *role of the village* as a source of labour then becomes interesting. There are multiple tailor shops in Mamura which could serve as both informal training centres, as well as avenues to earn a livelihood after being ejected from the sweatshop[29]. While asking around looking for respondents, many people mistook me for someone looking to work in the garment industry and referred me to a woman who works as a labour contractor. Neighbours would inform each other of job openings in factories. Someone also pointed towards the existence of a fabricator within the village. One respondent learned how to stitch from a training centre[30] in Mamura where, as per her, over 200 women come to learn.

These findings tie into larger patterns of garment factories dumping the responsibility of training on workers themselves. In fact, they expect a *skilled workforce*, as most respondents reported being interviewed before joining. Some even rationalize being paid less if they are hired despite being inadequately trained. As highlighted by Breman (2005), "Skill formation is achieved – as in nearly all sectors of the informal economy – by training on the job. Learning by doing, in the shadow of experienced relatives, neighbours or friends, takes no longer than a couple of months." (p. 2501). Accordingly, 42% of respondents learned how to do their job by looking at what other workers were doing and teaching themselves. 29% worked as helpers, and 23% paid similar training centres[31].

Migration and Mobility: Movements across Sweatshops

A rather significant characteristic of the sample (underlying its highly circulatory nature) is that all respondents are *migrants*. 59% are from UP, 29% are from Bihar, and 12% are from West Bengal. 91% of respondents go back and forth from their village at least once a year. In fact, the spatial mobility across different places of work is interspersed by visits to their village, highlighting the 'footloose' nature of the workforce (Breman, 1996). For 94% of respondents, entry to Noida's sweatshops was motivated by a lack of available work back in their village and mediated by kinship networks[32]. As stated by one respondent, "if we would've lived there we would've died hungry."

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[28] In case of women, the decision to work would often be justified as not wanting to sit and do nothing; instead earning some money would help with expenses. This falls into the phenomena of housewifization (Mies, 1982), which shall be discussed in detail later.

[29] Many respondents who do stitching work chose to do so because of the post-employment opportunities it has.

[30] This centre is a small place with ladies who taught them on 3-4 machines. They charge 1000 rupees per month, but one can go for as long as one likes. She went for 10-15 days.

[31] The only exception is one respondent, employed as an industrial engineer, was trained by a design college she attended, and was placed through the same.

[32] This is another feature of footloose labour identified by Breman (1996).

76% respondents own, or have access to land back in their village. Of those who do own land, 41% use it for farming and 29% have houses built on it, from which one collects rent and others have family members living there. 35% are dependent on this land as a source of their livelihood[33]. They report the inability to sustain themselves through this land as the reason for joining garment work and only "earn enough to eat" when they farm.

One of the most striking aspects of one respondent is the extent of his *spatial mobility*. In the 15 places he recounts working in, he has moved spatially across six different regions. Within each of these regions, he has worked in several different companies spread across different parts of the city, at least six of which are within Delhi itself. Additionally, this spatial mobility is not necessarily limited by national boundaries as exemplified by his time in Kathmandu.

71% of respondents have worked more than one job prior to the one they are currently employed in. Among them, 18% respondents have worked from five to fifteen jobs previously[34]. Comparatively, 12% of respondents who did non garment-work previously have only worked less than four jobs[35], and have worked for spans of eight and ten years in their previous jobs. This suggests that such high rates of mobility are somewhat unique to garment work, at least as compared to construction and carpentry. One respondent, Firoz, has worked eight jobs in six areas. What is interesting about his case is that every time he goes back home, he returns to work in the same company in Noida. Bringing more nuance to arguments about labour circulation that focus on migration from the village to workplace, as well as workplace to workplace even if in the same area, Firoz consistently returns to the same workplace every time.

Notably, all 29% of those who have worked less than one job previously are women[36]. Those who have worked two jobs (12%) are teenagers. Even among them, the male respondent has worked across Jalandhar, Surat, as well as Noida, while the female respondent has only worked in Noida. Higher rates of mobility of male respondents indicate the *gendered nature of mobility*.

Upward mobility within the garment sector is limited (Breman, 2005; Tripathi and Singh, 2014). The only proper instance was of one respondent who used to work as a lineman and became a checker. Beyond him, one respondent moved from being a machine operator to stitching because he felt that it would allow him better long term career prospects. Another, who used to do handwork, chose to

[33] 18% respondents have secondary occupations, however none are dependent on it for their livelihoods, it just augments their income.

[34] Notably, these are all Muslim male respondents.

[35] A total 24% of respondents have done non- garment work previously. However, one of them is an Industrial Engineer and does not qualify as footloose labour. Another is underage and too young to study the life cycle of. Hence only 12 % of respondents are relevant for this analysis.

[36] In the previous chapter, Paana Didi tied lower mobility of women as giving supervisors more scope to harass them. "They put more pressure on ladies because gents have the ability to find work somewhere else if not here. Gents can roam around, but ladies, if they stay, they stay."

take up machine operation as a calculated decision for a better paying job. Lastly, one moved from doing thread cutting to store work, which had less to do with occupational mobility and more with having a job that allows one to sit.

One respondent, an *Adda* Worker, was demoted from salaried to daily wage work. He was called to the HR Manager's office who informed him that the people from the Head Office[37] didn't want any *adda* workers on salary, but at least they aren't firing him[38], just shifting him to daily wage. He lamented this loss, pointing out how this would mean him earning single (hourly wages) for overtime, instead of double that he would receive as a salaried worker. Additionally, he would no longer get Sundays and other holidays off. This indicates trends of *casualization* of work. What is interesting is that his casualization was attributed to being an adda worker. Given that the garment industry works on niche specialization, with adda work being prominent in NCR, adding great value to the cost of the garment, it is curious to see why he is being casualized. Records of his past employment also show that he left his past two jobs as the companies he worked for ran out of orders for adda work. A possible reason might be the presence of cheaper labour in the form of home based women workers in rural areas (See Mezzadri, 2017). Trends of casualization of labour in Noida have also been identified by Tripathi and Singh (2014), who argue that factories prefer hiring casual workers so as to eschew from responsibilities of paying monthly salaries and social security benefits[39].

Easy Disposal: Exit from the Sweatshop

As highlighted by Chang (2011 in Arnold, 2013, p.295), "the maximized mobility of capital requires flexible and disposable labour that can be utilized according to the needs of capital in constant movement." This flexibility and disposability is best represented in the case of a respondent who reported that her company changes worker's registration cards every six months so that they don't have to pay for their social security. "They give a 15 day break for Rakhi so people leave, and then they re-register workers as if they are new." Notably, 41% of respondents reported deductions in their salaries owing to *social security* benefits (largely Employees' State Insurance and Provident Fund). However, as highlighted by Mezzadri (2017), entitlement to social security benefits does not mean always translate to access. As per Tripathi and Singh (2014), one of the reasons for giving these benefits is to incentivize workers to work longer hours for larger orders. When these orders are completed, workers are given a 'break', resulting in a highly casual and mobile labour force.

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37 This comprises yet another layer of hierarchy.

38 This echoes the use of threats of firing highlighted in the previous section. Additionally, when asked as to whether he asked them why this was happening, he responded, "They would've fired me if I would have said something." When I asked him why he thought it might be happening he said, these demands are from the Head Office, again falling into patterns of obfuscation of responsibility mentioned before.

39 He also argues that the existence of a casualized labour force is responsible for low rates of promotions.

Giving workers *breaks* has also been identified as a labour control strategy, whereby workers are informally fired and only those who "tolerate their shouting" are rehired (as was illustrated in the previous chapter). This contributes to the particularly high rates of labour turnover that characterize the garment industry. In line with the findings reported by Mezzadri and Srivastava (2015) and Mezzadri (2017), 65% of respondents have spent less than 5 months in their current workplace[40]. Workers report being fired for the smallest of mistakes such as damaging a single piece or leaving work a few minutes before time[41]. This is enabled by logics of reserve armies of labour as reported by one respondent, "What does he care? He has 72 ladies to handle; he just says leave I'll get someone else".

However, Mezzadri and Srivastava (2015) show that high turnover rates may sometimes cause labour shortages. As reported by Mezzadri, (2017, p. 171) the Noida Labour Commissioner Office "finds shortage might be due primarily to the fact the industry is not considered a good employer." Mezzadri (2017) and De Neve (2012) have argued that workers often leave companies they dislike conditions of work at as a "survival strategy" (p.173). Previous sections have highlighted that Supervisors use the twin measures of creating fear and pressure to extract surplus labour. However, extreme pressure may lead to workers resigning, as evidenced by one respondent who has left two previous jobs for fear of not meeting targets[42]. 29% of respondents have reported leaving a company because of unfavourable working conditions[43].

Here the role of the labour contractor becomes important. In addition to their supervisory role, labour contractors often give advance *loans* to workers. 18% of respondents reported borrowing money from their Supervisors, one of whom said that she ends up taking an advance five to six months a year. As highlighted by Breman (2005) and Lerche (2007), these advances often work to tie workers in relationships of "neo-bondage" as evidenced by one respondent who said that his supervisor would keep delaying payment to stop them from leaving. Lerche (2007) highlights how, through neo-bondage, "the migrant labour force tends to be more effectively exploited, through longer working hours, lower wages (lower in terms of wage in relation to workload, and sometimes also in absolute terms) and less labour unrest" (p. 439).

Breman (1996) also points out that these advances may not necessarily be substantial, and often only serve immediate consumption needs. Emphasizing the inadequacy of wages paid to garment workers, 76% of respondents reported

[40] The maximum one respondent has worked in their current workplace is 5 years; the respondent seems to have relatively good work conditions. Beyond her, all 18% of respondents in managerial positions have worked for 1.5-2 years.

[41] Respondents report not being paid their salaries or benefits if they resign or are fired from the job.

[42] This can also be seen in Tajmul Chacha's narrative.

[43] These include non-payment of wages by contractors and sexual harassment at the workplace by one female respondent.

facing difficulties in managing their monthly household expenditure. While 35% are still able to make do living hand to mouth, the remaining 41% are unable to subsist on their wages. They *borrow* money from relatives or take *loans* from shops to sustain their households. As per one respondent, "difficulty arises between the 25th and the 7th of the month. If they don't pay us on time this continues till the 12th. We have to borrow money then."

35% of respondents are *indebted*. Mezzadri and Srivastava (2015) note that "minimal levels of debt (or better, a monthly deficit) are very much part and parcel of their overall livelihoods" (p.225). They show that some workers "move to the NCR for short spells of circular migration in order to break the debt cycle. In the NCR, they can earn more than in their place of origin, and thus can put some savings aside" (p.225). This was the case with one respondent, who reports taking loans when there are problems at his village and coming to Noida to repay them. However, 35% of respondents explicitly mentioned the inability to save any money[44]. This might be because Mezzadri and Srivastava (2015) find that the monthly per capita expenditure reported by workers is the highest in Noida (p.149).

This seemingly contradictory co-existence of relationships of neo-bondage and high rates of labour turnover are manifestations of the extremely volatile character of the garment industry. When export houses have a lot of orders, they frantically hire workers, call them 'urgently' and overwork them (as described in the previous chapter). Informal sources of labour supply (kinship networks, neighbours) allow for flexibility in the recruitment process. When there aren't any orders, companies shut down altogether. Orders from buyers are crucial to the survival of garment manufacturing export houses, as the mushrooming of the same has led to intense competition, wherein any mistakes or dip in orders can result in the shutting down of a factory (Anner, 2015). 23% of respondents highlighted the shutting down of the company as the reason for them leaving previous workplaces.

These factors, in addition to the footloose nature of the workforce as outlined above, underscore the complex ways in which garment workers secure their subsistence across the rural-urban divide. However, to adequately understand issues of subsistence, it is essential to explore realms of social reproduction which play a foundational role in maintaining and sustaining the workforce[45].

4.3 Social Reproduction of Garment Workers

To fully grasp the extent to which exploitative conditions of work structure the lives of garment workers, we must journey beyond the sweatshop to the household. The workplace doesn't exist in isolation from the broader conditions of life. Drawing from Mezzadri's (2017) argument that the sweatshop regime depends upon, borrows from, and reifies pre-existing patterns of labour un-freedom, this section uses the lens of gender to explore the household as the site of social reproduction.

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[44] In addition to the 41% who are indebted.

[45] See Mies (1982); Federici (2004); Mezzadri (2016)

It illustrates how the externalization of costs of social reproduction by factories depletes their bodies. In doing so, it argues that workers' status in realms of production and their status in the realms of social reproduction mutually reinforce their vulnerability, further reducing their cost to factories.

Living Conditions

Garment workers' living conditions offer them little respite from their harsh working conditions. All respondents rent the spaces they live in, which not only takes up a significant portion of their expenditure,[46] but also renders them vulnerable to the demands of their landlords. Workers leave the Supervisor's threats of firing at the sweatshop to come home to the landlord's threats of eviction.

12% of respondents live in urban slums and 82% in one-room chawls. Notably, all respondents who live in urban slums are Muslims. Sizes of chawls vary, and the number of residents occupying them greatly impact living conditions. This is best exemplified by two respondents who, despite living in a large chawl, share the room with nine other workers[47]. 88% of respondents have at least four people living in one room.

47% of houses (including all urban slums) have no beds. Of those which do, barring one, the beds take up most of the space in the room, and may not even suffice for all the room's occupants. 53% of respondents have to share their bathrooms with other houses. In chawls, the same bathroom is shared by approximately four families. In the case of urban slums, this number rises to over 20 people. The area lacks proper sanitation facilities. Open drains and sewers that run across urban slums form breeding grounds for mosquitoes. Such abysmal living conditions inevitably compromise on the health of workers.

Health Impacts

High workloads take an extremely heavy toll of the health of workers. 53% of workers complain of fatigue, stress, weakness, and tension. 47% suffer from chronic headaches[48] and have developed eyesight problems in the course of garment work. Other complaints include body ache, breathlessness, fainting, dizziness, and cough due to the fiber in the atmosphere[49]. Begum et al. (2008) highlight the role played by Bangladesh's climate in creating suffocating and unhygienic conditions of work. Described as "hot and humid", such weather is commonly found in Noida with temperatures easily crossing 40°C for most of the summer. Mehta (2012) draws attention to the risk posed by the very posture required to operate sewing machines, drawing its linkage with severe musculoskeletal disorders. Ashraf (in Prentice and De Neve, 2017) illustrates how injuries at work are common, and differ across

[46] For 24% of respondents, rent constitutes the largest portion of their monthly expenditure.

[47] These are single male migrant workers.

[48] Headaches can be symptoms of blood pressure, eye diseases, anaemia etc. (Paul-Majumder, 1996)

[49] This is known to cause byssonisis, a lung disease commonly found among garment workers.

designations. The most dangerous of these are sewing machines, the needles of which are particularly hazardous. Importantly, he argues that the current global mechanisms in place to address health and safety concerns of workers depoliticize the issue, ignoring the fundamentally exploitative nature of the process in favour of "buildings and building safety" (p.251).[50]

That garment work is responsible for these deteriorating health conditions has been demonstrated by Paul-Majumder's (1996) extremely important study, wherein her respondents developed chronic illnesses only after joining garment work. She points out that the deteriorating health impacts of garment work do not only manifest as increased medical expenditure, but also cause monetary loss in the form of workdays[51]. Medicines form a recurring expenditure for 65% of respondents[52]. Only one respondent, a checker, reported his medical expenditure being covered by ESI, while the rest pay out of pocket.

Drawing from Federici's (2004) argument that the labouring body was the first machine developed by capitalism, Mezzadri (2017) illustrates how it is the "primary raw material" used in garment production, and it's systematic depletion renders garment workers "disposable" (Wright, 2006), thereby producing and reproducing reserve armies of cheap labour. Notably, these insights on the labouring body have been a result of feminist analysis that accounts for the reproductive labour performed by women. When factories externalize costs of social reproduction of the workforce, it is important to note that the burden of the same falls primarily on women.

Housewifization

Mies' (1982) ground breaking work on housewifization reveals how the pervasive perception of women as 'housewives' works to obscure actual conditions of production wherein women's labour, which is essential to capital accumulation, is invisiblized. This invisibilization occurs across two sites-within the workplace (the sphere of production), and household (the sphere of reproduction), subsidizing the cost of labour.

Within the sphere of production, which in our case is the sweatshop, the clearest manifestation of the subsidization of women's productive labour is the wage gap. The only designation with both male and female respondents in this study is stitching. Female tailors (12% of respondents) reported wages less than their male counterparts (24% of respondents). Age and experience don't result in any increase in wages, as the elder of two male respondents with 30 years of age difference

[50] See Akhter at al. (2010) and Begum et al (2008) for health impacts of garment work in Bangladesh.

[51] This was also pointed out by Ravina Didi.

[52] Of those who don't report significant expenditure on medicine, one respondent said that he would just tolerate the illness and wait for it to pass.

was paid only marginally[53] more. If anything, age is a detrimental factor[54]. The highest paid respondent was the Adda Worker. His monthly income increased substantially[55] after being casualized to a daily wage worker. This means that casualization does not necessarily have to do with paying lower wages in the short term, but externalising the social reproduction of the worker and absolving the factory of any responsibility of them in the long term.

The subsidization of women's labour can also be seen through the reservation of low paid designations exclusively for women. Of this, thread cutting is the clearest example. All respondents in this designation were female[56] and paid the least of the sample.[57] The second least paid designation is sampling work, another designation dominated by women. It is important to note that this pervasion of the gendered division of labour to the workplace results in certain designations being earmarked as feminine and paid less simply due to such an association. This does not necessarily have much to do with how "skilled" the work is. Thread cutters, for example, work their entire shifts (which last up to 12 hours) standing. Conversely, certain designations are reserved for men, particularly those which are supervisory in nature. In line with the same, both checkers in the sample were men[58]. However, this doesn't necessarily translate to them being paid better[59].

In a rather interesting case, two respondents of the sample, husband and wife, were both garment workers. While the husband works as a checker (a Supervisory position), the wife works as a machine operator. As she described the difficulties she faces in meeting targets, he intervened to remark that the work is menial "*kaam chota mota sa hi hota hai*", they just take a lot of time to do it. We see thus that the gendered division of labour within the household is replicated in the factory. Wright (2006) illustrates how such a replication, rooted in patriarchal norms, constructs women workers as 'disposable'.

Female respondents noted "not wanting to be a burden" and "not wanting to just sit in the room" as their motivation to take up garment work. One respondent

53 Rs. 200.

54 Read Mezzadri (2017) on the depletion and exit of the labouring body. A prospective respondent whose interview could not happen due to the coronavirus worked as a helper in one of the factories. This was attributed to him being "too old" to be employed as a worker.

55 By Rs. 5000.

56 Barring one respondent who is a daily wage worker and worked for only 15 days during the month in question.

57 This argument is further substantiated by one respondent who shifted from thread cutting to operating machines because she wanted to earn more money. Interestingly, one of the thread cutters who earns Rs.1100 more than the rest complained that "I'm getting low pay because of the contractor. My supervisor said when I get a direct job I'll be paid Rs.8300 and double pay for overtime."

58 Both of them are paid lesser than most of the tailors they are supervising. In fact, no checker earns less than all tailors, while the other earns less than 50% of the tailors, including one who is underage.

59 The only exception is the female industrial engineer, but this role doesn't have that much to do with physically supervising workers.

referred to garment work as a "good time-pass". To be sure, none of these women were just sitting in their rooms and/or burdening their relatives. When asked about their daily activities outside of work, 71% of respondents reported cooking food as a major activity. Of them, 47% were women and 18% were single male migrants[60].

Other tasks performed by female respondents outside of work include childcare, washing clothes and utensils, and cleaning the house. Conversely, the activities reported by men in were (beyond eating and getting ready) calling home (6%), praying (6%), and loitering (12%). On Sundays and holidays, all 29% of respondents who reported going out were men, while one of the female respondents[61] noted that she spends her Sundays making *masala* and packing it for her husband's work.

Paul-Majumder (1996) and Begum et al. (2008) find that lack of adequate nutrition and time to rest among female garment workers makes them disproportionately vulnerable to illness, "the most important reason for the differential health impact of garment work on male and female workers may be the fact that female workers had significantly less time for sleeping and rest and recreation than their male counterparts" (Paul-Majumder, 1996, p.74). All respondents who reported fainting at work were women. 12% of respondents have reported "being too tired to eat" after work. These were all women.

Female garment workers thus leave the high workloads of their workplace for the high workloads of their home[62]. It is through this double exploitation of female labour that costs of social reproduction, which are externalized by factories, are borne by workers.

5. CONCLUSION

The aim of this article has been to explore the lives of those who labour in India's garment sweatshops, so as to expose the processes and mechanisms of exploitation that characterize the same. In doing so, it has attempted to argue that the cost of 'cheap labour' is paid by the labourers themselves across realms of production and reproduction. The analysis was divided into three sections, each of which delved into a particular facet of garment workers' lives to reveal a significant structure underscoring the harshness thereof.

The scarcity of literature that uses the lens of labour to look at the garment industry in particular, and global production networks at large, has been highlighted by Mezzadri (2017). This study attempts to fill this gap by looking at capital from the eyes of labour. One of the primary ways in which this article contributes to

[60] In fact, the only female respondents who didn't cook food are Shabhnam whose sister cooks for her, and Nandini whose mother does the same. Thus, reproductive labour inevitably falls on women only.

[61] PaanaDidi from the previous chapter.

[62] One respondent mentioned preferring exploitative factories over staying at home, since she has to be at the beck and call of both her husband and mother-in-law at home.

existing literature is through its location in Noida. While existing literature has surveyed Delhi (Mezzadri, 2008), NCR (Mezzadri and Srivastava, 2015; Roy, 2009), there is a sheer lack of literature rooted solely on the garment industry in Noida. The only exception is work by Tripathi and Singh (2014), which does not look into realms of social reproduction or the footloose nature of the workforce. As has been repeatedly demonstrated by this article, it is essential to look into realms of social reproduction to truly understand the production of the 'cheapness' of labour. Here, the study benefits from purposive sampling consisting of females and non-single migrants, who are not the majority which comprises of single male migrants. Additionally, while it does not explore the impacts of the Goods and Services Tax (GST) and demonetisation in detail, it is important to note that it was carried out after these measures were announced, unlike existing literature on the area.

By exploring the sweatshop from Noida's vantage point, what emerges is a picture of an industry in permanent crisis recovery mode. The structural nature of the industry's vulnerability to market volatility, rooted in its highly fragmented nature, has been amplified by the coronavirus outbreak. Garment exporters in Noida claim a loss of over two years of orders (Bhowmick, 2020) as a report by Outlook shows that garment manufacturers in NCR fear suspension ('NCR garment factories face suspension', 2020). This shock comes after the "triple whammy" of demonetisation, GST, and rising competition that the industry was already recovering from (Nair, 2017).

The lack of a detailed exploration of religion as a social structure that segments vulnerability among workers forms one of the major limitations of the article. Additionally, the role of caste (as highlighted by De Neve, 2012; 2014; Carswell and De Neve 2014; Carswell, 2012) has also not been explored due to the limitations posed by the sample. Lastly, this article would benefit extensively from further research into the role played by spatial dynamics in the social reproduction of workers, as illustrated by Ngai and Smith (2007) and Kelly (2009).

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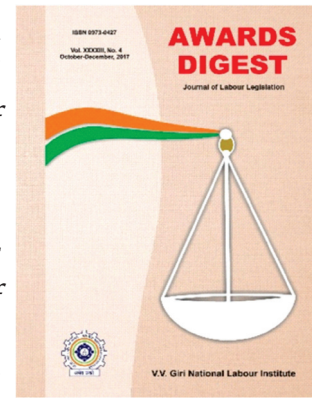

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Published by V.V. Giri National Labour Institute, Sector-24, Noida-201301, U.P. and
Printed at Chandu Press, D-97, Shakarpur, Delhi-110092

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Vol. 27, No. 2, December 2020