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India's Elusive Quest for Inclusive Development: An Employment Perspective

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Abstract

This paper is an attempt to assess India's performance in generating the required quantity and quality of employment for its growing population since independence in 1947. But the exercise is set in a longer period that covers India's population growth since the turn of the twentieth century (1901) in relation to its ability to generate employment. The half-a-century preceding independence, despite a slow population growth, was a disaster in generating employment and any signs of structural change. Detailed analysis of the issue since independence shows that there was indeed a demographic burden more than the world average as well as its comparator Asian countries such as China and Indonesia. While employment generation with reference to growth—employment elasticity—was quite impressive during the first four decades of independence, it almost collapsed ever since the adoption of neoliberal economic reforms in 1991, thus entering a phase of 'jobless growth', a phenomenon that is shared by China in a more vigorous form. This has led to what may be called an exclusion of working age people from not just employment but from labour force indicating the emergence of 'discouraged workers' in a larger set that we called underutilized labour. But what about those who are included in the workforce? Does it ensure an escape from poverty for those at the bottom? Our estimates show that the pace of reduction in the incidence of poverty is so slow that a significant share of households is still below the international definition of extreme poverty. We attribute this to the quality of employment characterized by a high incidence of informal sector employment as well as low wages measured by the share of workers not receiving a recommended subsistence wage. The absence of any kind of social security to an overwhelming share of workers adds to this situation of absolute poverty. Finally we examine the question of poverty from the point of manifold inequalities by dividing the households in the economy in terms of their employment, educational, rural–urban, and social group statuses for estimating predicted probability of being poor. The results bring into sharp focus the huge variation in

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predicted probability that shows households with low education, disadvantaged social group status, casual nature of employment, and living in rural areas at the bottom end of the scale. These results bring out the imperative for creating more employment with better quality.

1 Introduction

This article is a revised version of my Radhakamal Mukerjee Memorial Lecture delivered at the 62nd Annual Conference of the Indian Society of Labour Economics (ISLE) held at the Indian Institute of Technology, Rourkee, on 12 April 2022. Radhakamal Mukerjee, one of the tallest social scientists, India, has ever produced, was a 'polymath of prodigious productivity'; that's how Ashwani Saith (2016) described him when he delivered this memorial lecture in 2015. T. S. Papola (2015), someone with a very long association with the ISLE, including as its President, dealt with Radhakamal Mukerjee's life and work and the significance of his inter- and trans-disciplinary contributions when he delivered the Radhakamal Mukerjee memorial lecture in 2014. It was a much-needed exercise since studying social science has become so segmented across and within its constituent subjects of economics, sociology, politics, and other behavioural sciences.

Radhakamal Mukerjee is said to have loved the 'large picture' that allowed him to move easily between subjects and disciplines in his long journey to understand Indian society and its economy. Drawing from this spirit of looking at events on a broad canvas, I intend to focus on the relationship between economic growth and employment in India since independence in general and the period since the introduction of neoliberal economic reforms in particular. It is the result of this enquiry that prompted me to characterize the Indian experience as an elusive quest for inclusive development.

India's growth story, especially since neoliberal economic reforms, has indeed been an impressive one. It is also part of a larger story of 'Resurgent Asia' as Deepak Nayyar (2019) has brought out in the path-breaking work on the rise of Asia in the world economic stage. He noted that India's growth performance during 1991–2016 was the second highest, after China, among the Asian-14 that he selected as leading this resurgence. At the same time, India's rise is quite below potential, and the lead in Asian resurgence is mainly due to China preceded by the other East Asian countries. However, when one goes into the details of India's rising economic power, there are disturbing trends and new challenges. The glaring one is the persistence of absolute poverty and deprivation, and the other is the glaring deficiency in the quantity and quality of employment. Of course, these two are closely interlinked problems reflecting two sides of the same coin. From a growth point of view, India's aggregate growth performance at an annual rate of 7 percent for three decades, from 1991 to 2021, is outranked by 1.8 times the growth rate at 3.9 percent during the

earlier four decades, from 1951 to 1991.[1] However, as we shall see in detail, the employment situation has given enough reasons to be worried about.

The adverse impacts of instantaneous policy reforms as well as exogeneous shocks such as the ongoing Covid-19 pandemic were all felt first in the employment situation of mostly informally employed workers and their families. The demonetization of currency in 2016 followed by the hasty implementation of a GST system in 2017 disequilibrated the fragile but extensive informal economy leading to loss of jobs and thus livelihoods of large numbers of people. This was followed by the global Covid-19-induced pandemic in early 2020 that witnessed a massive exodus of informal workers from urban centres back to their villages in search of safety. Much of these shocks were ultimately absorbed by the rural economy resulting in a widening of the rural–urban gap. Policy attention continues to be disproportionately directed at the urban economy.

Employment is more than an economic variable, and it is critical to ensure a decent standard of life. It also imparts a measure of dignity and self-worth that could lead to social and cultural wellbeing. I have therefore taken this occasion to ask myself a series of questions as per the following.

1. What was the initial condition at the time of independence in terms of the relationship between population growth and work force growth, i.e. the demographic dimension?
2. How does India perform when we connect growth with employment in comparison with global trends as well as its Asian comparators?
3. Is there an exclusion from the labour market and, in the context of the debate on 'missing women' in the labour force, what are its gender dimensions?
4. Does inclusion in work force ensure an escape from poverty? If not, what are its dimensions and who are the working poor?
5. How serious is the problem of quality of employment?
6. How do geographical, social, educational, and gender differentiations influence inequalities in employment-related outcomes?

These are not new questions and had been investigated by many scholars focusing on one or more of them. Following Radhakamal Mukherjee's preference, my attempt here is to look at this large picture over a long period of time and then focus in some detail over the last four decades that covers the entire period of neoliberal economic reforms. In particular, I intend to highlight the various dualisms that characterize India's economic situation posing several old and new challenges.

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[1] These growth rates are calculated on the basis of National Accounts data for Net Domestic Product released by the Central Statistical Organization and adjusted at 1999–2000 prices.

1.1 The Demographic Burden

When viewed from a global perspective, there is no doubt that India has gone through a relatively more burdensome demographic process than the world at large. From the beginning of the twentieth century to the present, a long-duration view shows that the world population grew at an annual rate of 1.34 percent. In contrast, India experienced an annual rate of 1.47 percent. During the half-century (1901–1951) before the country's independence, the growth rate was marginally below the world average—0.90 percent compared to 0.96 percent. However, during 1951–2020, India's population growth rate of 1.61 percent exceeded that of the world at large at 1.26 percent. And this resulted in India's share of world population increasing from 14 percent in 1951 to 17.3 percent in 2020 (see Table 12). Had India been able to maintain its population share in 2020 at the same level as in 1951, India's population would have been 1091.3 million instead of 1346.2 million. This means an extra 256 million people were added for its failure to maintain the population growth at the same rate as that of the world at large. From the point of additional demographic burden, what this means is that India had to shoulder an additional population that is close to the total population of Indonesia (273 million) in 2020!

Higher population growth in independent India could be viewed as a developmental irony because the increase in population results from a decline in mortality that was made possible by the modest economic growth and equally modest state intervention in health and other welfare measures. Indeed, the process of demographic transition is on its way, although much slower than say, in China, its legitimate comparator in economic performance. Another legitimate comparator is Indonesia which also had a better performance in lowering population growth rate although recent trends show a relatively better performance for India. In fact, there seems to be a regional pattern in Asia in which East Asia (China) has attained relatively early demographic transition, followed by South East Asia and South Asia at the bottom. This is evident from the annual growth rate in the working age population for the last three decades ending with 2020 (see Table 1).

This demographic experience is a primary determinant of the size of the labour force. However, there are other powerful factors, including social norms and practices governing labour force participation rate of women. A larger scenario comparing the country's experience with that of the global and the regional, including two countries with large populations, shows that the difference is more pronounced for women than men. That constitutes, in my view, a social challenge for India and the other countries in South Asia, to attain the levels reached in other parts of Asia.[2]

A comparison of population growth and the growth in the number of workers throws up the difficult period that India has gone through before independence. Available data for 1911 to 1951 tell us that while the population grew by 52 percent,

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[2] As per ILOSTAT, LFPR for women (out of working age population of 15 years and above) in 2020 is 46 for the world as a whole with south-east Asia at 54.6 and south Asia at 21.1. In China it stood at 61.8, Indonesia at 53.2 and India at 18.6.

Table 1 Annual growth rates in Population (15 and above), Working Age Population (WAP 15–64), Labour Force (LF), Work Force (WF), and Unemployed in selected regions/countries

Region	Category	1991–2001	2001–2011	2011–2020	1991–2020
World	Population	1.40	1.24	1.14	1.26
	WAP (15–64)	1.83	1.67	1.34	1.62
	Labour Force	1.63	1.30	0.73	1.23
	Work Force	1.51	1.31	0.63	1.17
	Unemployment	3.70	1.15	2.19	2.35
China	Population	0.86	0.58	0.50	0.65
	WAP	1.45	1.31	0.61	1.14
	Labour Force	1.10	0.60	0.15	0.63
	Work Force	0.96	0.52	0.10	0.54
	Unemployment	5.99	2.43	1.21	3.26
India	Population	1.89	1.52	1.10	1.52
	WAP	2.44	2.12	1.77	2.12
	Labour Force	2.28	1.24	0.01	1.21
	Work Force	2.28	1.26	-0.30	1.12
	Unemployment	2.24	0.97	4.41	2.46
South Asia	Population	2.00	1.59	1.24	1.62
	WAP	2.60	2.22	1.85	2.24
	Labour Force	2.44	1.49	0.53	1.52
	Work Force	2.44	1.51	0.25	1.43
	Unemployment	2.47	1.14	4.90	2.75
Indonesia	Population	1.51	1.35	1.23	1.36
	WAP	2.34	1.62	1.63	1.87
	Labour Force	2.52	1.59	1.70	1.95
	Work Force	2.15	1.69	1.81	1.88
	Unemployment	11.56	-0.08	-0.37	3.69
SE Asia	Population	1.63	1.28	1.13	1.35
	WAP	2.39	1.81	1.50	1.91
	Labour Force	2.31	1.84	1.04	1.76
	Work Force	2.15	1.95	1.04	1.74
	Unemployment	7.25	-0.99	1.02	2.42

Source: Computed from ILOSTAT data

the growth in workers was only 16 percent. Given the large-scale dependence on primary production and the labour-intensive character of non-agricultural activities, one can then imagine the state of affairs from an employment point of view. Based on Census figures, Radhakamal Mukherjee pointed out that the share of industrial workers to total workers was a mere 11 percent in 1901, which fell to 10 percent by 1931 (1945: 2). Alice Thorner's estimate of the workforce in agriculture and related activities at 75 percent in 1901 and 76 percent in 1951 also suggests the generalized nature of economic stagnation from an employment point of view (Thorner 1962: 1157). For the next forty years beginning with independence (1951–1991),

the gap reduced to 134 percent and 125 percent for population growth and work-force growth, respectively. Yet the gap between the working age population and the work force was not fully closed. Interestingly the next thirty years (1991–2021), the growth in workforce by 67 percent marginally exceeded that of the WAP that registered an increase of 65 percent. One can see here that demographic transition has undoubtedly set-in in India from a broad employment perspective, though much later than its comparators. This is evident from a comparison of the trend in annual growth in total population and the working age population for the last decade (2011–2020) given in Table 1. However, China and Indonesia as well as the South East Asia are better positioned than India and South Asia.

Despite a slow process of demographic transition, India's absolute demographic burden continues to pose challenges in meeting the employment requirement. And this is evident in the absolute increase in WAP from 383.5 million in 1983 to 865 million in 2019. During the same period the those who are without work and not in education increased from 102.3 to 303.8 million.

2 Connecting Growth with Employment

From the point of the challenge of inclusive growth, let alone development, an employment perspective would suggest that we connect workforce growth with overall economic growth. And that is done by measuring employment elasticity with reference to growth. Historical data are hard to come by for a comparative exercise, and therefore, I have taken the readily available and comparable data for thirty years, beginning with 1991 which coincides with the beginning of neoliberal economic reforms in India. The emerging global picture is one of declining employment elasticity suggesting the intensification of capital in every unit of output (see Table 2). But given the trend in new technological changes, one should include in this intensification of capital the investment in human capital that drives technological changes based on computers and information and communication technology. Barring China, India has the lowest employment elasticity for 1991–2020 and each decade. By this calculation, the last decade was one characterized by 'job loss growth' given the negative sign of the elasticity (see Table 1). This declining ability of economic growth to create employment in India certainly calls for much deeper investigation and reflection beyond, I suppose, received economic theories and categories and into dimensions such as hierarchical social segmentation and exclusion that a Radhakamal Mukerjee method would certainly approve of.

A word about China is called for. China's employment elasticity is puzzling, to say the least. Despite controlling the population growth rate drastically, resulting in a working age population growth rate that is only half of India's, the employment absorption is considerably lower than India's. What it suggests is the highly capital-intensive and technologically driven nature of China's growth, disregarding the important human dimension of employment.

Table 2 Employment elasticity with reference to economic growth

Region/Country	Total employment				Wage employment			
	1991–2001	2001–2011	2011–2020	1991–2020	1991–2001	2001–2011	2011–2020	1991–2020
World	0.51	0.35	0.24	0.38	0.53	0.62	0.60	0.59
Indonesia	0.60	0.31	0.41	0.42	0.91	0.62	0.68	0.72
India	0.38	0.19	−0.06	0.19	0.43	0.42	0.57	0.47
China	0.09	0.05	0.02	0.06	0.20	0.32	0.33	0.28
SE Asia	0.48	0.36	0.25	0.37	0.81	0.72	0.64	0.73
South Asia	0.44	0.24	0.05	0.26	0.50	0.45	0.56	0.49

Employment elasticity is defined here as the ratio between percentage change in work force divided by the percentage change in output. Employment refers to persons in the age group of 15 to 64 years and the national income data is standardized in PPP dollars. Source: Output (GDP in 2017 PPP dollars) data taken from World Bank's world data and data on workers (15–64 years) from ILO stat

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Table 3 Employment elasticity based on Census data and NSS data for workers

Year	Census	Year	NSS	
			All employment	Wage employment
1	2	3	4	5
1951–61	0.78			
1961–71	-0.04			
1971–81	1.08	1972/73 -1983	0.54	0.63
1981–91	0.44	1983–1993/4	0.44	0.63
1991–01	0.44	1993/4–2004/5	0.24	0.20
2001–11	0.16	2004/5–2011/12	0.06	0.24
2011–19	0.22	2011/12–2019/20	0.17	0.14

Source: National income data (NDP) from National Accounts; Data on employment from Census and NSS and PLFS Rounds

In Table 2 we also present employment elasticity for wage employment.[3] This is uniformly higher than the employment elasticity of all employment. What this indicates is the reduction in the growth of self-employment and a relatively higher growth in wage employment that could be taken as a positive sign. However the wage employment base as a share of total employment is quite low especially for India (24%) as compared to China (54%) and Indonesia (47%) even in 2020.

From an Indian perspective we are in a position to pursue the question of declining employment elasticity with reference to aggregate economic growth for a longer period of close to 70 years based on Census data and close to half-a-century (1972–2019) based on NSS data. Here we take wage employment to include regular as well as casual employment. Although the employment elasticity for total employment conceals the role of self-employment as a default category, we observe even here a significant decline suggesting that even the space for creating one's own employment is shrinking. Despite this I feel that it would be appropriate to look at the ability of the growth process to create wage employment during a process of high growth. And this is represented by the employment elasticity figures given in the last column of Table 3. Two things need to be noted here. One is the high employment elasticity for all employment during the pre-reform period (in both Census and NSS figures). The employment elasticity is also higher for wage employment during the two decades prior to the economic reforms. The second is the sudden collapse in employment elasticity—both for all employment as well as wage employment—beginning with the neoliberal economic reforms of 1991. Another striking feature is that the pre-reform periods of two decades registered an employment elasticity of twice that of the first decade of the post-reform period for all employment and three

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[3] In the ILO classification system casual employment is included under 'self employment', Therefore wage employment in this table refers to only regular employment. The age group taken for estimating workers is 15 to 64 years.

times for wage employment. The last decade (2011–20) shows the lowest employment elasticity for wage employment during the last half-a-century.

It is this phenomenon of a declining trend in employment elasticity that led to a vigorous debate on 'jobless growth' followed by some half-hearted policy interventions. In fact the Government of India and the Planning Commission were alerted to the problem by a paper by Sundaram (2001) that first reported the declining employment growth during 1993 and 2000. Realising the political sensitivity of the issue the Government of India constituted a *Task Force on Employment Opportunities* of the Planning Commission to study the problem (Government of India 2001). That report while acknowledging the sharp fall in employment elasticity advocated a more vigorous neoliberal economic reforms to further strengthen the formal sector of the economy to create more employment. Such a recommendation did not find wholesale approval, largely due to electoral political compulsions, despite the strong commitment of the Government of India to neoliberal reforms. This led to the formation of another committee of the Planning Commission known as *Special Group on Targetting Ten Million Employment Opportunities per Year* (Government of India 2002a, b). Acknowledging the collapse in employment elasticity during the first decade of the economic reforms, it advocated the promotion of the informal or unorganized sector which has a greater capacity to create employment. The political highlighting of this issue continued and the 2004 general elections saw a change of regime from the National Democratic Alliance led by the Bharatiya Janata Party to the United Progressive Alliance led by the Indian National Congress that had initiated the neoliberal economic reforms in 1991. The new government promptly appointed a *National Commission for Enterprises in the Unorganised Sector* which came out with a series of reports on how to improve the conditions of work and life of the 80 percent of the workers in the informal sector. Its final report titled *The Challenge of Employment: An Informal Economy* perspective is an elaborately workout strategy for "levelling up" the informal sector and the informal workers. The Commission also came out with detailed estimates of not only the informal sector workers but also the informal workers in both informal and formal sectors, thereby flagging the expanding category of insecure workers in the formal sector. It advocated a social floor for minimum wages, minimum national social security and minimum conditions of work for informal sector workers. On the enterprise side it advocated a series of promotional measures for the enterprises in the informal sector including agriculture for enhancing access to credit, technology, marketing and skill development. It not only supported the special public employment programme called the National Rural Employment Guarantee Scheme[4]—a 2004 poll promise implemented in 2005—but also recommended a similar one for the urban areas for addressing the problem of under- and unemployment especially among those willing to do manual work. However, only a select few of the recommendations were sought to be implemented disregarding the integrated vision and framework that could have enhanced the employment as well as conditions of work and livelihood of the labouring poor. However a significant outcome of the work of the NCEUS

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[4] Later renamed as Mahatma Gandhi National Rural Employment Scheme.

was the public acknowledgement and recognition of the absence of social security of the majority of workers in the economy and the importance of the informal sector for employment and livelihood for an overwhelming majority of workers despite the impressive aggregate economic growth of India. In a way it was also a reminder of the emergence of a changing dualism in the Indian economy along formal and informal sector as well as employment in place of the old traditional (agricultural) versus modern (industry) sector.

Going by the employment elasticity figures the disconnect between growth and employment in the economy not only continued but even increased during the second decade of this century (see Table 3). Examining the employment situation for the first decade since the reforms, Unni and Raveendran (2007) called it an "illusion of inclusion". Subsequent work by Kannan and Raveendran (2019) flagged the long-term trend since the reform as one of jobless and then job-loss growth. Mehrotra and Parida (2021) sought to explain the situation from both the demand and supply side and called it as one due to the "stalled structural transformation of the economy". Kapoor (2019) flagged the problem as one of "job challenge" given the increasing trend in "discouraged workers", low quality of jobs for the new entrants, below subsistence wages to significant sections of casual workers and absence of any contract for increasing numbers of regular workers. Given the leading role of manufacturing industries in economic development both in terms of growth and employment, the performance of organised manufacturing sector came in for detailed investigation. A long-term study covering close to half-a-century since 1981 revealed an impressive growth performance without a commensurate employment growth (see Kannan and Raveendran 2009). An extended ongoing study covering a longer period of 37 years (1981–1982 to 2017–2018) gives some ground for hope with an uptake in annual employment growth rate from 0.63 (during 1992–1993 to 2004–2005) to 4.4 percent (2004–2005 to 2017–2018). However the annual growth rate in capital stock has been 7.4 and 11.3 percent for the above periods, i.e. 11.7 and 2.6 times the growth rates in employment. The high period of employment growth has been found to be during 2004–05 to 2011–12. But the recent shocks of demonetization, Covid-19 pandemic and the higher rate of inflation do not permit an optimistic scenario.

An important study of the organised sector covering both manufacturing and services by Goldar (2014) led him to conclude that "the rapid growth attained by organized manufacturing and organized services in the two decades of economic reforms did not result in any significant increase in employment in these two sectors. Rather, there was virtual stagnation in employment (except for the very recent surge in employment in organized manufacturing)".

In sum, the long-term story of growth and employment in India is an increasingly 'jobless' story despite the continuing growth in working age population, labour force and labour underutilization (LU) that represents a large segment of people, especially women, seeking work as well as those who may be called 'discouraged workers'.

## 3 Are There Exclusions from the Labour Market?

A closer examination of the Indian experience in assessing the required quantity of employment is not the gap between the growth in labour force and workforce because engaging in some kind of work is the only option for a significant share of the population without assets or non-labour income. And that is the reason for the relatively low rate of aggregate unemployment in the country. While the category of 'self-employment' offers a space for those without wage work in creating some employment to eke out a living there is an increasing trend in exclusion from the labour force and therefore not counted in the labour market. This indicates that the ability to create a space for some work is also limited in a context of increasing population growth and inadequate demand for labour.

But what about those outside labour force and education? They are usually assumed to be voluntarily opted out of labour force. But that is not necessarily so and should be reckoned, especially from an economic development point of view, as loss of both national output as well as income for the households. They may have reported not seeking or available for work at a given point in time for a variety of reasons including the low wages that are in vogue. In order to measure those outside work and education, the International Labour Organisation has recently come out with this measurement calling it 'labour under-utilization' (ILO 2020). Therefore a four-scale measurement of what is called 'Labour Underutilization' (henceforth LU) has been proposed. LU1 is a measure of Unemployment in the sense of seeking and/or available for work, LU2 is a measure for Unemployed plus those underemployed in the workforce and wanting to work more, LU3 is a measure of the Unemployed plus those outside the labour force (and education) but potentially available, and LU4 that includes the Unemployed plus underemployed within the workforce plus those outside the labour force (and education).[5]

While we recognize the problem of underemployment of workers in India, my objective here is to measure all those who are outside the workforce and education that approximates to LU3 measurement (i.e. those unemployed in the sense of seeking/available for work plus those outside the labour force and education) proposed by the ILO. I shall then discuss the issues associated with the measurement of 'potential labourforce' from those who are outside the labour force and education.

Our denominator for measurement is the working age population (WAP) between the age of 15 and 59 years. By this measure (see Table 2), the share of men in the category of labour underutilization (LU) has increased from 4.6 percent to 7.3 percent of the WAP between 1983 and 2020. In 2018–2019, this was higher at 8.2 percent, suggesting the imperative in 2019–2020 to engage in some kind of work—self-employment—to survive as a result of loss of wage work during the first year of the Covid-19 pandemic (see Kannan and Khan 2022). But the increase in absolute numbers from 8.9 million to 32.2 million is not to be missed out induced by earlier population growth and its impact on the growth of WAP. However, this measure of

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[5] For a simple exposition of these measures see, ILO (2018a), 'Avoiding unemployment is not enough' in *ILOSTAT Spotlight on Work Statistics*, No.4, August.

Fig. 1 Source: ILOSTAT
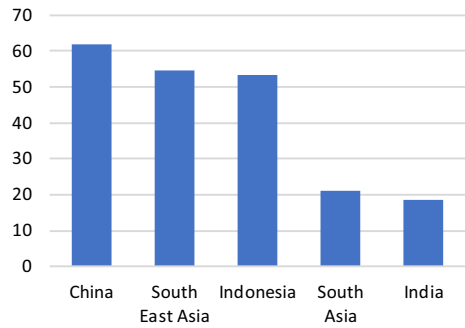
LU has been exceedingly high for women; from 50 percent in 1983 to 62.4 percent in 2019 and then to 57.2 percent in 2020 with a corresponding rise in numbers from 94 million to 267.6 million in 2019 and to 244 million in 2020. Against a wider historical canvas, this number of women not in either workforce or education (LU) in 2020 exceeds by 1.3 times the working age population of women in 1983 or 2.6 times those out of work and education (LU measure) in the same year!

What should be worrying to the policy makers is the steep decline in work participation rate of women from 47 percent in 1983 to 24.5 percent in 2019 and 30 percent in 2020. However, the educational participation has risen from 3 to 13 percent, but it has not been adequate to cover the decline in the combined participation from 50 to 38 percent. Interestingly, despite a greater decline in demand for women's work than men, the former have continuously improved their educational qualifications.[6]

From a comparative perspective of China and Indonesia as well as South East Asia, women's labour force participate rate in India is low (see Fig. 1). But what should be quite alarming is the rise in their share of non-participation as a percentage of WAP. Our argument is that this could be due to an increasing share of 'discouraged persons' for a variety of reasons such as low wages, especially in the primary and informal sector that are often below a minimum subsistence wage, low status attached to certain manual work in a hierarchical society, higher aspirations for jobs commensurate with increasing educational qualifications and so on. At the same time we need to recognize that social reproduction functions may also keep a segment of women away from the labour force. But this cannot be stretched too far since we find that the labour force and educational participation rate of women in the reproduction age group of 18–35(out of the working age population in that age group) was found to be 48.8 percent in 1983 compared to a combined participation rate (labour force plus education) of 50.7 for the age group of 15 to 59. This declined to 40.6 and 44.2 in 2019–2020. Given such a small difference in combined participation rates, the argument of staying out of the labour force (and education) does not carry much water. Therefore the 'discouraged worker' hypothesis seems to

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[6] The share of women with a secondary or higher level of education in total WAP (15–59 years) increased from 6.6 percent in 1983 to 37.1 percent in 2020. For men these percentages are 16.3 and 47.0 respectively.

have a stronger validity. Since existing National Sample Survey data do not permit a decomposition of those outside the labour force and education as to the causative factors, further investigations in the form of probing questions as well as an assessment of the factors affecting the demand for employment of women are called for. Therefore our estimates of potential labour force under LU should be reckoned as 'maximum potential labour force'.

However, we have strong reasons to believe that the increase in the share of LU in a context of neoliberal economic policy regime has to do with decreasing employment opportunities for the less educated. It gets reinforced when there is a steady increase in average years of education, the less educated gets filtered out even from low skill and low wage employment. This is borne out by a decomposition of the WAP of women in terms of less educated (below secondary level) and educated (secondary and above) (see Table 14). The work participation rate for the educated has declined from 22 in 1983 to 17.5 percent in 2019, only increasing to 21 percent in 2020. But what is quite dramatic is that these women who have completed secondary education are vigorously continuing in education with 22 percent in 1983 to 25 percent in 2020 such that their combined participation rate has remained between 43 and 46 during these 37 years. In other words, this has meant a marginal decline in LU from 56 to 54 percent. A much higher proportion of those in the LU educated category are also actively seeking work than the less educated. This is the main reason for educated unemployment rate being higher than that of the less educated. What then emerges is that the additional exclusion of women from the work force and education since 1983 has fallen entirely on the less-educated women. Given the absolute decline in the workforce between 2011–2012 and 2017–2018 that fell entirely on women, we characterized it as a phenomenon of 'job loss growth' (Kannan and Raveendran 2019).[7] The recovery in this respect has not substantially altered the situation given the increase in the share of those women out of work and education in 2018–19 and 2019–2020.

But education has played a crucial differentiating role in excluding women from work force. Here, we should also not miss the challenge of absolute numbers of the educated. By differentiating the working age population as educated (secondary level and above) and less educated (below secondary level) we find that during the 37 years under consideration, the number of men in the educated LU category increased from 2.3 million to 18.2 million. But for women, it jumped from close to 7 million to 85.1 million! However, the burden of less educated is somewhat less for men—from 6.7 million to 13.9 million—but considerably higher for women, rising from 86.5 million to 159 million!

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[7] The absolute decline in employment in 2017–18 could be a fall out of the demonetarization of currency (Rs.500 note) and the consequent disruptions in the economy since 2016. This decline has been restored in 2018–19.

3.1 'Missing Women' as a Separate Category

This estimate of the LU needs to be differentiated from the question that appeared as 'missing women in the labour force'. Several papers have already been published. While the LU estimates include those officially classified as 'unemployed', the missing women category refers only to those outside the labour force (workers plus unemployed) and hence outside the labour market and those in education. To get an idea of the 'larger picture', *a la* Radhakamal Mukerjee, we have attempted an estimate of the missing women for the 37-year period differentiated by education. Here again we took 1983 as the benchmark to find out those who are out of the labour force and education. The point that missing women in the labour force due to increased participation in education is only partly valid. It is not valid at all for the educated category of women (see Table 15).

For the educated category of women, the combined participation rate (i.e. labour force participation plus educational participation) has remained the same at around 49–50 percent, while it declined from 50 percent in 1983 to 34 percent in 2018–2019 (and 41 percent in 2019–2020) for less-educated women. Compared to 1983 there was hardly any missing women in the educated category. In fact, some of these 'missing women' to the tune of 0.95 million got included in the labour force in 2019–20. However, for the less-educated women the 'missing women' in 2018–19 compared to the 1983 LFPR was 45.54 million in 2018–2019 and 26.3 million in 2019–2020. Therefore, the 'missing women' phenomenon in the Indian labour force has fallen solely on the less-educated women. These results, of course, call for further probing to understand their household and social group characteristics; further decomposition shows that the missing women are entirely from the rural sector of the economy.

> The sum and substance of the challenge of the quantity of employment in India is undoubtedly related to its slow demographic transition since independence from the supply side as well as a low demand for labour especially the less educated. Such a process 'excluded' a significant share of its incremental population in participating in the workforce and labour force; much more for women than men.

3.2 The Class of Working Poor as a Manifestation of Inadequate Inclusion

The bottom line on linking growth with employment in a poor but growing economy is the need to reduce and then eliminate poverty. India's ability to absorb the growing labour force as work force may seem to be high (see Table 1) as in other similar developing countries. However, this is because poorer segments of the population have no alternative but to engage in some kind of work as a matter of survival. However, detailed empirical work carried out earlier (see Sundaram and Tendulkar 2002) shows a consistent decline in the incidence of poverty (measured by the national poverty line) between 1983 and 1999–2000. This decline is also seen when the data decomposed by household type such as self-employed and wage labour in both rural and urban areas for the period between 1993–94 and 1999–2000. This decline has been attributed to the economic reforms and consequent acceleration in aggregate

Table 4 Incidence of Extreme Poverty in India by Household Labour Type

Rural	1993–94	2018–19
SE Agriculture	34.8	41.8
SE Non-agriculture	36.9	31.0
Agr Labour	61.2	50.4
Other Labour	44.9	35.5
Others (Misc.)	26.7	31.3
Total	42.3	38.7
Urban		
Self-Employed	17.2	12.6
Regular	8.3	6.8
Casual Labour	37.6	29.2
Others (Misc.)	13.2	9.7
Total	15.7	11.8
Rural + Urban	**34.8**	**29.2**

growth followed by a shift of labour from agriculture to non-agriculture. It works through an increase in real wages both in rural and urban areas as well as an increase in the average years of education. The authors view the apparent decline in WPRs as a matter of labour market tightening. However, the bottom group is that of the casual labour households in both rural and urban areas given their poor asset base, unsteady employment, and often the lowest wage rate.

There is no doubt that there has been a decline in the incidence of poverty in India including for the most vulnerable group of agricultural labourers and their households. But the decline is with reference to a national poverty line that has been below that of the international extreme poverty line until recently. Poverty and its determination have been a subject of much debate and controversy in India, although it seems to have receded in recent times going by the international 'extreme poverty' line of 1.9 PPP$ per capita per day.

I have therefore made a fresh attempt to measure the decline in the working poor (based on household labour status) for a longer period of 25 years by comparing 1993–94 and 2018–19. Since the national poverty line has undergone changes in weights of its components as well as use of price indices leading to controversies, I have taken the two international poverty lines of One Purchasing Power Parity Dollar per capita per day for 'Extreme Poverty' (equal to Rs.218.2 per capita per month) and PPP$2 (Rs. 436.4 per capita per month) for 'Poverty' for 1993–94. These have been revised as equivalent to PPP$1.9 (Rs. 1216.31 per capita per month) and PPP$3.2 (Rs. 2048.51 per capita per month) for 2018–2019.[8] A limitation of these international poverty lines is that they are

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[8] Since 2017–18 detailed surveys on household consumer expenditure in the country have not been carried out by the National Sample Survey Organisation. The results of the 2017–18 survey was withheld by the Government of India and hence not made available so far. We have therefore taken the total consumer

Table 5 Incidence of Poverty in India by Household Labour Type

Rural		
	1993–1994	2018–2019
SE Agriculture	87.4	85.1
SE Non-agriculture	87.6	76.6
Agr Labour	96.2	88.5
Other Labour	91.9	74.9
Others (Misc.)	76.1	71.1
Total	89.1	80.5
Urban		
Self-Employed	66.4	45.3
Regular	52.1	32.1
Casual Labour	88.3	71.6
Others (Misc.)	53.9	29.8
Total	62.3	41.5
Rural + Urban	**81.6**	**66.6**

Table 6 Incidence of Extreme Poverty by Household Labour Type and Education

Rural	Sec & Above		Below Sec	
	1993–1994	2018–2019	1993–1994	2018–2019
SE Agriculture	18.5	31.8	36.1	44.9
SE Non-agr	15.0	19.5	38.7	34.8
Agr Labour	42.0	35.3	61.7	52.5
Other Lab	21.0	17.9	45.8	41.0
Others (Misc.)	7.1	18.8	31.1	34.9
Total	17.2	25.1	44.1	42.6
Urban				
Self-Emp	4.5	6.5	20.4	16.6
Regular	2.2	3.2	11.1	9.9
Casual Labour	22.3	17.4	38.3	31.6
Others (Misc.)	3.1	5.4	18.4	14.8
Total	3.5	5.3	19.6	16.4

not decomposed for rural and urban areas as in the Indian case of measurement of poverty. This could somewhat overstate the estimates of the two poverty incidences for rural areas. While this is important to keep in mind, we should also

Footnote 8 (continued)

expenditure reported by the households in 2018–19 as well as in 1993–94 from the employment-unemployment schedule.

Table 7 Incidence of Poverty by Household Labour Type and Education

Rural

	Sec & Above		Below Sec	
	1993–1994	2018–2019	1993–1994	2018–2019
SE Agriculture	74.4	77.4	88.4	87.4
SE Non-agr	68.8	65.6	89.1	80.2
Agr Labour	90.1	80.4	96.3	89.7
Other Lab	72.3	55.5	92.7	80.9
Others (Misc.)	52.5	51.8	81.4	76.6
Total	69.2	67.6	90.5	84.2
Urban				
Self-Emp	40.4	30.2	73.0	55.2
Regular	31.0	19.4	61.8	43.5
Casual Lab	77.2	58.0	88.8	74.3
Others (Misc.)	30.0	17.1	66.4	44.8
Total	35.1	24.8	70.9	53.2

note that the incidence of poverty in rural areas has always been higher than that in urban areas in national measurements of poverty in India. The findings are given in Tables 4, 5, 6, 7. There is no doubt that this pace of decline, as we shall see later, is at a snail's pace leaving behind a significant backlog in poverty at both thresholds.

First and foremost is the overall decline in the incidence of poverty in terms of the international norms of extreme poverty and poverty. For all the households, extreme poverty declined from 34.8 to 29.2 percent during the 25-year period that we have taken here, i.e. 0.22 percentage points per annum. Against the higher threshold for poverty, the decline was from 81.6 to 66.6 percent, i.e. 0.6 percentage points per annum.

Second, this overall incidence camouflages the crucial difference in 'place of residence' as between urban and rural. For various reasons, urban residence results in a significantly lower incidence of both extreme poverty and poverty. It is also evident that the rural–urban gap has also increased. In 1993–94, the incidence of rural extreme poverty was 2.7 times higher than the incidence in urban poverty, but this gap increased to 3.3 times in 2018–19. For the higher threshold of poverty this gap increased from 1.4 to 1.9 times. To what extent the incidence of poverty is conditioned by not only rural–urban residence but also by education, employment status and social identity in an unequal society like India are also crucial issues that we will examine a little later while discussing the challenge of inequality. At this stage, it is safe to conclude that urban India experienced a much faster decline in poverty than rural areas.

Third, from a labour status point of view, casual wage labour households have the highest incidence in rural (agricultural labourers plus other labourers) than

Table 8 Incidence of Extreme Poverty (Per capita per month Rs. 218.2 for 1993–94 and Rs. 1216.31 for 2018–19) and by Educational Status of Households

Category		Rural		Urban	
	Year	Sec & Above	Below Sec	Sec & Above	Below Sec
SCST	1993–94	27.5	55.8	6.8	27.7
Others	1993–94	15.4	38.7	3.2	17.7
SCST	2018–19	31.2	50.1	10.2	24.0
Others	2018–19	22.9	38.3	4.5	14.4

Source: Computed from unit level data from NSS 50th Round cor 1993–94 and PLFS Round 2018–2019

Table 9 Elasticity of poverty reduction with reference to per capita growth in output from 1993–94 to 2018–19

PPP$1 and 1.9	
(R + U)	−0.11
(R only)	−0.06
(U only)	−0.17
PPP$2 and 3.2	
(R + U)	−0.12
(R only)	−0.06
(U only)	−0.25

Note: Per capita growth in output taken at PPP$ for 1993–94 and 2018–19. Note: Per capita growth in output taken at PPP$ for 1993–94 and 2018–19

urban areas. Therefore, the employment route to poverty reduction for this class of working poor poses a greater challenge than other classes of labour.

Last, but certainly not the least, is the educational factor. All categories of labour households with a threshold level of education of secondary level and above demonstrate a greater propensity to reduce the incidence of poverty. In the urban areas except a miniscule share of households (3.5–5.3 percent) all of them have crossed the extreme poverty threshold. For the higher threshold of poverty only a quarter of the households with education are poor in 2018–19, while for the less educated it is a little more than half. For the rural areas, households in the educated category also show a much lower incidence than those in the less-educated category. The gap seems to have narrowed down except for the urban areas for the higher threshold of poverty.

While this empirical profile gives us an idea of the unequal distribution of the working poor households, the picture would get much more nuanced when a more crucial factor, or so I find, is introduced, i.e. the social group identity of the households. We shall come back to this more elaborate structural-cum-institutional profile of the working poor in the country a little later while talking about the challenge of inequality. At this stage, it is enough to note the difference

between the bottom group of Scheduled Castes and Scheduled Tribes (SCST) and Others for a quick comparison between 1993–94 and 2018–19.[9] What is striking in the results presented in Table 8 is the low incidence among educated households in urban areas compared to rural areas for both the educated and less-educated households. However, an increase in the incidence of extreme poverty among educated households between 1993–1994 and 2018–2019 raises some fresh issues that need further investigation. One plausible reason could be the effect of poorer households (with at least one member acquiring secondary or above level of education) moving to the educated category without a perceptible improvement in employment status. These dimensions have been probed through a logit model later with results that are quite significant from a differentiated picture of India's socio-economic reality.

4 Growth Effect on Poverty Reduction

One way to determine the extent to which economic growth in the neoliberal era is responsible for reducing poverty is by estimating the elasticity of poverty reduction with reference to growth. Our exercise shows that for every percentage growth in output the percentage reduction in extreme poverty is a mere 0.11 percent and 0.12 percent in poverty (see Table 9). But the striking aspect of this reduction is in the differential impact as between rural and urban. For extreme poverty the elasticity of poverty reduction for urban areas is three times that of rural areas; for poverty it is a little more than four times. Data limitations prevent us from a comparison of all four social groups considered here. However, data available for 2018–19 show that among the four broad social groups—SCST, Muslim, OBC, and Others (called Socially Advantaged Group) SCST group experiences the highest incidence of poverty among 6 out of 8 categories. In the remaining two categories—urban educated and less educated—Muslim group experience the highest incidence (see Table 16).

In this detailed grouping, not only is there a hierarchal ordering of poverty across social groups but also a sharply poor rural economy viz-a-viz the urban economy.

5 The Challenge of Quality of Employment

Quality of employment is certainly too broad an idea. It is also associated with the stage of development of an economy in terms of productivity, poverty, and the structure and institutions in the economy governing labour not to speak of the political economy of power as between employers of labour and the workers. In the Indian context, there is a substantial body of studies that highlights the conditions of work of those who belong to what is now widely called informal or unorganized sector of the economy. Workers in agricultural sector constituted till recently (2018) a major

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[9] Data for 1993–94 do not permit a detailed social grouping along SC, ST, Muslim, OBC, and Others since OBC category is clubbed with Others.

share of total workers find themselves in a world of their own with very little regulatory legislation on conditions of work. However the non-agricultural sector of the informal economy also characterized by extreme forms of adverse conditions of the quality of work. Some worst features of the quality of work have seen a decline such as in child labour and forced/bonded work, but many other features remain as a challenge. These features such as lack of adequate work, long hours of work, lack of basic facilities at work sites, health and occupational hazards, various forms of wage-cutting as in putting out systems, labour market discrimination along gender and social group identities, and lack of social security provided by employment have been examined in great detail by the erstwhile NCEUS (2008) before recommending appropriate measures to improve the conditions of work.

Of course, these features of the labour market and work conditions mainly, if not only, manifested in the informal sector are quite endemic to most developing countries especially those at the bottom of the per capita income ladder. Such a situation has presumably led the ILO to come out with a concept of Decent Work as an objective that countries could strive to attain. The operational content of the ILO's declaration got elaborated in terms of access to employment, social protection, workers' rights and social dialogue. Taking this idea of Decent Work as a broad frame, we highlight certain dimensions that are amenable for quantification depending on the availability of data. This is summarized in Table 17.

Within this rather poor record in attaining a modicum of decent work conditions in an otherwise fast-growing economy, we flag here three dimensions that pose a formidable challenges in the Indian social and governance context. These are: (a) the size of the informal sector and informal employment and changes therein, if any, (b) the extent of social security available to workers, and (c) the issue of low wages that does not meet a subsistence threshold recommended for adoption at the national level.

Informality: The first point to note is the emergence of a new dualism in the Indian economy that is different from the earlier depiction of dualism as one of agriculture vs industry or traditional vs modern sectors. In this new dualism that is distinctly manifest after the structural transition of the economy from a predominantly agricultural one to a non-agricultural one, there are two dimensions. One is the sectoral dualism as between informal and formal sectors, and the second is the dualism as between informal employment and formal employment. There is a large congruence between informal sector and informal employment, but there is a growing tendency of informal employment in the formal sector as the figures in Table 10 show. The formal sector is characterized by higher capital intensity, technology, and modern organizational forms, and the informal sector is an obverse mirror characterized by low capital-labour ratio, employment size (less than 10 workers), simple technologies, and risky organisational forms such as proprietary or partnerships. This cuts across the earlier dualistic features, but these are more striking in the non-agricultural sector of the economy (see NCEUS 2008).

Let us first examine briefly the sectoral characteristics. If we take all employment (including agriculture) the formal sector registered an annual growth rate of 3.18 percent between 1999–00 and to 208–19. However, it constitutes only one-fifth of the total employment given the low initial base. The informal sector has shown a

Table 10 Percentage shares of total employment in terms of formal and informal sectors and type of employment in India (Men + Women) 15 years and above

Economy	Year	Sector		Type	Total		Total employment (Million)
		Formal Sector	Informal Sector	Informalemp	Formal emp	Total	
All Sectors	1999–00	14.1	85.9	91.3	8.7	100.0	386.48
	2018–19	20.9	79.1	88.9	11.1	100.0	472.75
	CAGR	3.18	0.63	0.92	2.39		1.07
Non-agricultural sector	1999–00	31.4	68.6	80.4	19.6	100.0	155.95
	2018–19	32.1	67.9	83.1	16.9	100.0	278.11
	CAGR	3.21	3.04	3.27	2.28		3.09
Men Only							
All sectors	1999–00	16.4	83.6	89.5	10.5	100.0	268.65
	2018–19	20.5	79.5	88.5	11.5	100.0	360.56
	CAGR	2.76	1.29	1.50	2.03		1.56
Non-agricultural sector	1999–00	32.1	67.9	79.4	20.6	100.0	126.98
	2018–19	30.1	69.9	83.4	16.6	100.0	226.22
	CAGR	2.74	3.24	3.35	1.92		3.09
Women Only							
All sectors	1999–00	8.8	91.2	95.4	4.6	100.0	117.84
	2018–19	22.1	77.9	90.0	10.0	100.0	112.19
	CAGR	4.69	-1.08	-0.57	3.96		-0.26
Non-agricultural sector	1999–00	28.5	71.5	84.7	15.3	100.0	28.97
	2018–19	40.9	59.1	81.9	18.1	100.0	51.89
	CAGR	5.10	2.08	2.94	4.01		3.12

Source: Computed from unit level data from NSS XXth Round and PLFS 2018–19

lower growth resulting in a marginal decline in its share of employment from 86 to 79 percent during a period of nearly two decades. When the non-agricultural sector alone is considered, the emerging picture is not so encouraging since its employment size has declined only by a thin margin, from 69 to 68 percent. As for informal employment in the economy as a whole, there has been a marginal reduction from 91 to 89 percent but an increase when the non-agricultural economy alone is considered from 80 to 83 percent. This suggests a higher rate of growth of informal employment than formal employment in the non-agricultural economy.

Therefore, from the point of the quality of employment, informal employment has an overwhelming presence in the Indian economy with a marginal decline when all sectors are considered but no change when the non-agricultural sector alone is considered.

What about its comparators such as China and Indonesia? As per an ILO estimate China's informal employment in total employment in the economy is 54.4 percent, whereas Indonesia it is 85.6 percent as against India's 88.2 percent. If the non-agricultural sector alone is considered the figures are China 53.5, Indonesia 80.2, and India 78.1. In terms of employment in the informal sector, the employment share is 48.4 percent for China, 79.7 for Indonesia, and 81.7 for India. For the non-agricultural sector, these shares are 47.3, 71.8, and 65.9, respectively.[10] India and Indonesia are in a similar position as far as informality in employment is concerned, but the case of China is interesting given the political regime's claim of China being a socialist economy.

Informality in employment has a strong gender dimension, but the recent trends in India may appear that women workers are doing better than their male counterparts given their higher share of employment in both the formal sector and formal employment. However this conceals the decreasing share of women in the workforce driven by the loss of employment opportunities in the primary sector resulting in a net reduction in total workers. In an earlier paper (see Kannan and Raveendran 2019) we had pointed out that the new employment opportunities have already gone to the educated women with the less-educated (less than secondary level) women losing out and joining the category of LU presumably as 'discouraged workers'. One may also interpret this as a sign of increasing aspiration of the younger women in population who are continuously striving to enhance their educational attainments and seeking employment opportunities in non-agricultural sectors, especially in the service sector. Thus there is a dynamic process of exclusion of less-educated women and inclusion of relatively more educated women into the workforce.

While there are scholars (see, e.g. Ghose 2012; Ghose, et.al. 2008) who welcome the mere transfer of employment from the informal to the formal sector—and we would also welcome it given the higher level of wages and a possibility for some to transit to regularity of employment—we find that for a longer period of two decades for which such detailed data are available, the shares have not increased for the non-agricultural sector. Of course the absolute numbers have increased but that is not

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[10] The years for which these data pertain to are: 2013 for China, 2012 for India and 2016 for Indonesia. For details see, ILO (2018b).

Table 11 Percentage Shares of Wage Workers by Availability of Social Security in India (1 = Provident Fund/Pension, 2 = Gratuity, and 3 = Health care and maternity)

Social Security	Male		Female		Person	
	2004–2005	2018–2019	2004–2005	2018–2019	2004–2005	2018–2019
All workers (Formal + Informal Sector)						
Any one	7.4	7.9	6.8	8.7	7.2	8.1
Any two	4.4	6.4	3.6	7.0	4.2	6.5
All three	17.3	11.2	15.2	12.3	16.9	11.4
Total	**29.1**	**25.5**	**25.6**	**28.0**	**28.3**	**26.0**
None	69.1	66.3	72.8	67.3	69.8	66.5
Not known	1.9	8.2	1.6	4.7	1.9	7.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Workers in Formal Sector						
Any one	12.9	15.7	11.0	12.6	12.5	14.9
Any two	8.1	13.2	6.5	10.7	7.7	12.6
All three	34.2	24.1	28.0	19.5	33.0	22.9
Total	**55.2**	**53.0**	**45.5**	**42.8**	**53.2**	**50.4**
None	44.2	41.3	53.8	52.8	46.0	44.1
Not known	0.5	5.7	0.8	4.4	0.6	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Workers in Informal Sector						
Any one	1.9	1.5	2.1	2.4	1.9	1.7
Any two	0.7	0.8	0.5	1.1	0.6	1.0
All three	0.6	0.5	0.7	0.9	0.7	0.6
Total	**3.2**	**2.8**	**3.3**	**4.4**	**3.2**	**3.3**
None	93.5	86.9	94.3	90.3	93.6	87.4
Not known	3.3	10.2	2.5	5.3	3.2	9.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Computed from unit level data from NSS 61st Round and PLFS 2018–19

the point. Since the informality of employment is characterized by the absence of employment and/or social security, a mere sectoral transfer is no guarantee of decent work conditions. It is precisely this dimension of employment that the NCEUS addressed in great detail and worked out an elaborate programme for "levelling up" the informal sector both in productivity and providing collective social security and decent working conditions (see, NCEUS 2009).

5.1 Social Security

Informality in employment is not only associated with the absence of employment security but also social security provided by the employment status. Therefore the lack of social security in employment is a clear indicator of the low quality of employment. We have already noted that around half the total employment in

India is in the category of self-employment where there is no one to provide social security other than the worker. It is in this context that the NCEUS recommended a national minimum social security package covering all workers in the informal sector that basically sought to socialize the cost of social security to the workers in the informal sector for their economic contribution. It had noted that social security can be visualized broadly—often referred to as social protection—by ensuring (a) basic social security that is in the nature of public provisioning for basic health care, basic education, child care, old age care and so on, and (c) contingent social security to meet unanticipated adverse events as well as eventualities (death). There is international recognition and campaign for this kind of broad-based social protection to form a social floor. The extent of warranted coverage and budgetary costs with reference to India has also been worked out (see, e.g. Srivastava 2013). Focusing on contingent social security, the NCEUS worked out a package that was estimated to cost around 0.5 percent of the GDP as on 2006–09 (NCEUS 2006 and 2009). However, such a comprehensive system has not been found favour with successive political regimes and what one finds instead is a plethora of schemes with targeted coverages subjected to revision from time to time (see Kannan 2014 Ch. 6 for a critique).

Based on availability of data we are now in a position to examine the extent of the availability of social security for wage workers (mostly regular workers) and compare the progress between 2004–05 and 2018–19. The percentage of workers with one or more of the listed social security (see Table 11) has declined from 28.3 to 26.0 percent between 2004 and 2019. A sectoral breakdown suggests that it is overwhelmingly associated, expectedly so, with formal sector employment. But it also finds a decline from 53.2 to 50.4 percent that is quite close to the share of formal employment in the formal sector. Definitionally, informal sector employment is characterized by the absence of social security, but the coverage of 3.3 percent could be due to self-provision of social security in the higher levels of self-employment (such as professionals) and/or the provision of some social security by a few small establishments.

5.2 Minimum Wages

Wages for employment no doubt constitute an important factor in determining the quality of employment because of its consequential outcomes in terms of the standard of life of the worker and his family. It is also important from a macroeconomic point of view given its crucial role in determining aggregate consumption and its impact on subsequent growth of the economy. Although there is no single official document articulating a wage policy, several official commissions and committees and legislative instruments have spelt out the various aspects including minimum wages, timely payment of wages and non-wage benefits, collective bargaining, and reducing wage inequality. These issues discussed in several academic studies have also been subjected to an assessment recently (see, e.g. Papola and Kannan 2017 and ILO 2018). The most important, from our point of judging the quality of employment, is that of minimum wages.

The history of minimum wages in India shows a complex process characterized by different methods of fixing, variations across regions, industry, skill, and gender. However the need for a national floor level minimum wage applicable to all workers in the economy has been a demand for more than three decades. The National Commission on Rural Labour recommended a national minimum wage along with some broad guidelines on its fixation. Subsequent two commissions— Second Labour Commission (2002) and the National Commission for Enterprises in the Unorganized Sector (NCEUS 2006 and 2009)—also recommended the fixation and implementation of a national minimum wage below which no minimum wage at the regional or industry or any other level should be fixed. However the no statutory national minimum wage has so far been fixed by the Government of India. There is a recommended national minimum wage which acts as an advisory to the state governments.

To illustrate the consequences of the non-fixation of a statutory national minimum wage and its implementation, we propose to measure the share of workers in both rural and urban areas who do not get the recommended (non-statutory) minimum wage. This, we argue, could be taken as one of the measures of the non-inclusive nature of India's economic development from an employment perspective. The most recent exercise in determining a national minimum wage based on subsistence requirements is that of a committee appointed by the Government of India (2019) known as the Satpathy Committee. It recommended a national minimum wage of Rs. 375 in 2017–18 to be implemented by dividing the country into four regions for price adjustment of this value. By applying this threshold of Rs.375 to the data on employment in the two Periodic Labour Force Surveys, we find the proportion of workers getting a wage below this level works out to 58 percent (205 million) for men and 54 percent (56 million) for women in 2017–18. After adjusting for inflation these percentages have risen to 62 and 75 in 2018–19, i.e. 225 and 85 million workers, respectively. Such proportions of workers not able to secure a subsistence-based national minimum wage are shocking, to say the least. As a country, successive regimes in India consistently failed to ensure a minimum wage to its workers as recommended by its various expert committees. This picture of low earnings of a majority of workers stands in stark contrast to India's record as a fast-growing emerging economy with a trend growth rate of around six percent per annum for more than three decades.

The prevalence of low wages that are less than a recommended minimum wage is not the only problem in wages. It is also a question of inequality in wages that have strong associations with gender, social identity, education and location. We have taken this up in the next section dealing with inequalities. The outcome of low wages is the prevalence of poverty especially among those with unfavourable initial conditions as the ones mentioned above. This dimension of poverty is also taken up in the section on inequalities. In that sense both the quality of employment and inequalities in the outcome of employment have to be seen jointly as a composite challenge. Underlying these challenges is that of the dualistic nature of the economy that is now increasingly manifested as formal and informal in both organization of production and of employment. In Radhakamal Mukerjee's seminal work, *The Indian Working Class* (Mukerjee 1945), this kind

of categorization of the work force was not in vogue, but he was conscious of this dualism. He spoke about the work force in agriculture including the landless and distress migration to the cities (as well as export of labour through labour sourcing by overseas British capital) and the conditions of work and life of those who migrated to the cities for employment. While much of the book is devoted to the industrial working class, their problems, and remedial solutions, he prefaced this by a broader survey of the economy from the point of employment. He championed the country's planned industrialization and envisioned a transfer of poor labourers from low productivity economic activities to high productivity ones. In that sense, he was foreseeing a 'Lewisian transfer of surplus labour' much before its theoretical formulation. To quote:

> "Planned industrialization in India will, in the first place, integrate the small cottage and decentralized industries with the bigger factories and workshops, bringing craftsmanship up to mass production standards and rehabilitating the former in both the urban and rural economy of the land. This would make transition to full industrialization easier and at the same time combat the social dangers that are associated with large-scale industrial production concentrated in a few great industrial cities and towns. Secondly, it will bring about a close connection between agriculture and industry through the processing of agricultural products and raw materials" (1948 edition: 16-17).

When he concluded his first Chapter, Radhakamal Mukerjee spoke, so I think, as more of a visionary than a mere economist. He wrote:

> "With new orientation and coordination between the city and the village in the future, we shall find that the science and technique of the city will utilize the resources and raw materials and replenish the wealth of the village more than it will exhaust, and its life will stimulate the minds and enlarge the vision of a far greater number of people than it will wrap or repress" (p.17).

In this book, he dealt with the question of Minimum Wages for industrial workers at length. He and his students conducted many studies, including his collaboration with the King George Medical College, Lucknow, to determine the calorie requirements for a working Indian. The core message is that what he recommended in terms of calorie requirement (3000 cal) was far above that was later considered by successive Indian governments and even in the latest Committee on Minimum Wages. Radhakamal Mukerjee recommenced a national minimum wage but excluded agriculture and 'agricultural industries', as he called it. The saga of getting a statutory sanction for a national minimum wage is a long and continuing one in India, reflecting a certain stubborn political economy whereby the lives of the labouring poor receive the least priority in the political agenda of ruling regimes. In 2018, when the earlier mentioned Satpathy Committee recommended a national minimum wage of Rs. 375 per day at 2017–18 prices, the Government of India followed it by fixing, like a cruel joke, a non-statutory minimum wage at Rs.178 per day!
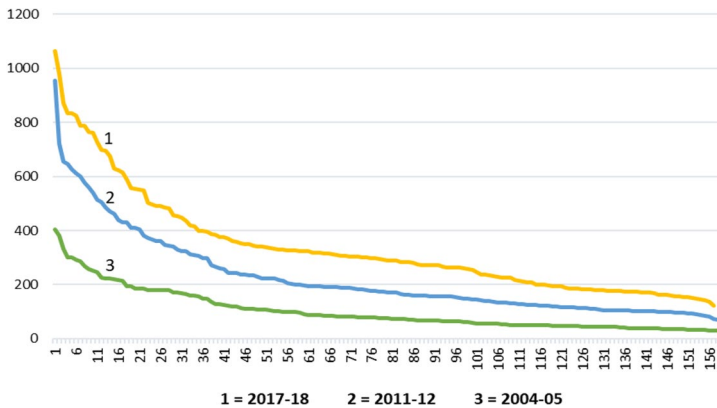
Fig. 2 Money Wages per day (Rs) for 160 Groups

6 The Challenge of Inequality as Manifested in Wages and Poverty

Most discussions and debates on inclusion focus on nominal inclusion and not substantive inclusion in the sense of reducing inequalities. India's challenge is one of manifold inequalities. And these are also reflected in employment and labour market conditions. They are structural and institutional. Structural inequalities in employment have to do with uneven development of the three basic sectors of the economy, and they also manifest across regions in a vast country. They are characterized by labour status as between regular, casual, and self-employment in the labour market. In both these, there is sharp inequality between rural and urban areas. Institutional inequalities are manifested in gender as well as social group identity. Elsewhere I have attempted to show that all these inequalities coalesce into social inequality understood in the hierarchical structuring of Indian society into broad social groups of castes and communities. I have called this 'durable inequality' *a la* Charles Tilly (1999) by its enduring hierarchical nature. It was important to bring out the increasing nature of this social inequality except in an important and potentially powerful indicator, i.e. educational attainment (Kannan 2021).

Given this overall background of manifold inequalities, I would like to focus here on two inequalities that have a direct bearing on the standard of living of the people. One is the inequality in wage rates and the other is the unequal outcome in the incidence of poverty of households belonging to different labour status groups.

A telling and manifest example of inequality in the labour market is that of wages. Standardising wages in terms of wage rate (i.e. wage per day) we may examine the spread of the wage rate in this segmented labour market. An earlier detailed study of wages (Papola and Kannan 2017) revealed that there has been some modest decrease in disparity in wages for casual workers as between rural and urban, men and women and in relation to regular workers. However a fuller picture will be that based on a number of segmenting factors. The important ones that we identified

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Category	Value
Urban/AS/SAG/Regular	2
Urban/AS/SAG/SE	2.2
Urban/AS/OBC/Regular	3.1
Urban/BS/SAG/Regular	5.2
Urban/AS/SCST/Regular	5.3
Urban/AS/Muslim/Regular	6.5
Urban/BS/SAG/SE	6.8
Rural/AS/SAG/RL(NA)	7.1
Urban/BS/OBC/Regular	8.9
Urban/AS/OBC/SE	9.1
Urban/AS/SAG/CL	9.4
Urban/AS/SCST/SE	10.3
Urban/AS/Muslim/SE	11.1
Rural/AS/OBC/RL(NA)	12.2
Urban/AS/OBC/CL	13.1
Urban/BS/SCST/Regular	14
Rural/AS/Muslim/RL(NA)	14.1
Rural/AS/SAG/SE(NA)	14.5
Rural/AS/SCST/RL(NA)	15.1
Urban/BS/Muslim/Regular	15.3
Urban/BS/OBC/SE	17.3
Rural/BS/SAG/RL(NA)	19.1
Urban/BS/SAG/CL	19.3
Rural/AS/SAG/SE(A)	20
Rural/AS/SAG/AL	20.1
Urban/BS/Muslim/SE	20.7
Rural/AS/OBC/SE(NA)	20.8
Rural/AS/Muslim/SE(NA)	21.1
Rural/BS/SAG/SE(NA)	22.1
Rural/AS/SCST/SE(NA)	22.4
Urban/AS/Muslm/CL	23.6
Rural/AS/SAG/CL(NA)	23.9
Urban/BS/SCST/SE	24.6
Rural/BS/OBC/RL(NA)	25.2
Urban/BS/OBC/CL	25.6
Urban/AS/SCST/CL	26.4
Rural/BS/SCST/RL(NA)	27.1
Rural/AS/Muslim/CL(NA)	28.5
Rural/BS/SAG/SE(A)	30.1
Rural/AS/OBC/CL(NA)	31.6
Rural/BS/Muslim/RL(NA)	32.3
Rural/AS/Muslim/SE(A)	33.3
Rural/AS/OBC/AL	33.5
Rural/BS/SAG/CL(NA)	34.5
Rural/BS/Muslim/SE(NA)	34.8
Rural/AS/OBC/SE(A)	34.8
Urban/BS/Muslim/CL	35
Rural/BS/OBC/SE(NA)	37.2
Rural/BS/SCST/SE(NA)	39
Urban/BS/SCST/CL	39.3
Rural/AS/SCST/AL	39.5
Rural/AS/Muslim/AL	40.8
Rural/AS/SCST/CL(NA)	40.2
Rural/AS/SCST/SE(A)	40.5
Rural/BS/SAG/AL	40.6
Rural/BS/Muslim/CL	40.9
Rural/BS/OBC/SE(A)	44.5
Rural/BS/Muslim/SE(A)	46.8
Rural/BS/OBC/CL	47.5
Rural/BS/Muslim/AL	49.8
Rural/BS/OBC/AL	50.4
Rural/BS/SCST/SE(A)	53.4
Rural/BS/SCST/AL	55.8
Rural/BS/SCST/CL	59.3

Fig. 3 As = Secondary and above, BS = Below Secondary i.e. upto Middle level of education or less, RL(NA) = Regular labour Non-Agriculture, CL = Casual labour, AL = Agricultural labour, SE = Self-employment, SE(A) = Self-employment in Agriculture, SE (NA) = Self-employment in Non-Agriculture Rural, CL(NA) = Casual labour in Non-Agriculture in Rural, SAG = Socially advantaged group, OBC = Other Backward Classes, SCST = Scheduled Castes and Scheduled Tribes

in the abovementioned study are location (rural/urban), education[11] (4 levels), gender (male/female), social group[12] (5 groups), and labour status (regular/casual) that works out to 160 group. This exercise resulted in the emergence of a 'long tail of wage inequality' that reflects the entrenched low wages of a large number of groups of workers. BY updating this 'long tail of wage inequality' for three different time points—2004–05, 2011–18 and 2017–18—what we get is a picture of inequality that is rising during this 13-year period (see Figs. 2, 3).

Wage inequality for 160 Socio-Economic Groups		
Year	Inter-Quartile Range	Gini Co-efficient
2004–05	76	0.18
2011–12	176	0.20
2017–18	240	0.21

Sourced: Computed from unit-level data from 61st Round for 2004–05, 68th Round for 2011–12 and Periodic Labour Force Survey (PLFS) for 2017–18

Of the two measures of wage inequality among these 160 socio-economic-labour status groups the inter-quartile range inequality has increased substantially meaning a huge widening of the gap between the bottom 25 percent and the top 25 percent. The Gini coefficients also show a widening of inequality albeit on a smaller scale.

The second dimension of inequality that we highlight is that of the incidence of poverty between 1993–94 and 2018–19 across different employment status groups in rural and urban India differentiated by educational attainments (see Tables 4, 5, 6, 7). Our hypothesis is that since an overwhelming proportion of workers earn their income through their labour, it is expected that the incidence of poverty will also follow this unequal distribution of wages. To illustrate, we have constructed a poverty profile for 2018–19 by dividing the households by location, employment status, education and social group identity. Rural households are divided into 5 labour status groups[13]×2 educational groups×4 social groups[14] that results in 40 groups. For urban households 3 labour status[15]×4 social groups×2 educational groups for urban areas make up for 24 groups that gives a total of 64 groups. The shape of the poverty distribution is like a ladder ranging from poverty incidence of 50 to 59 percent at the bottom and a mere two to five percent at the top. Therefore, if and when it happens, the so-called trickle-down goes through several layers of filtering

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[11] The educational levels are Least Educated (Primary or Below), Middle Level (Above Primary but below Secondary), Secondary and above but below graduate, and Graduate and above.

[12] The social groups are Scheduled Tribe (ST), Scheduled Caste (SC), Muslim, Other Backward Castes (OBC), Others (referred to as Socially Advantaged Group).

[13] For Rural households the groups available in the PLFS 2018–19 are: (1) Agricultural Labour, (2) Casual Labour (Non-Agriculture), (3) Regular Labour (Non-Agriculture), (4) Self-Employed (Agriculture) and (5) Self-Employed (Non-Agriculture).

[14] Here we combine the SC and ST into one group; the others being Muslim, OBC and Others.

[15] For Urban households the groups available in the PLFS 2018–19 are: (1) Regular labour, (2) Casual labour, and (3) Self-Employed. Such detailed classification of households are not available for 1993–94 50th NSS Round.
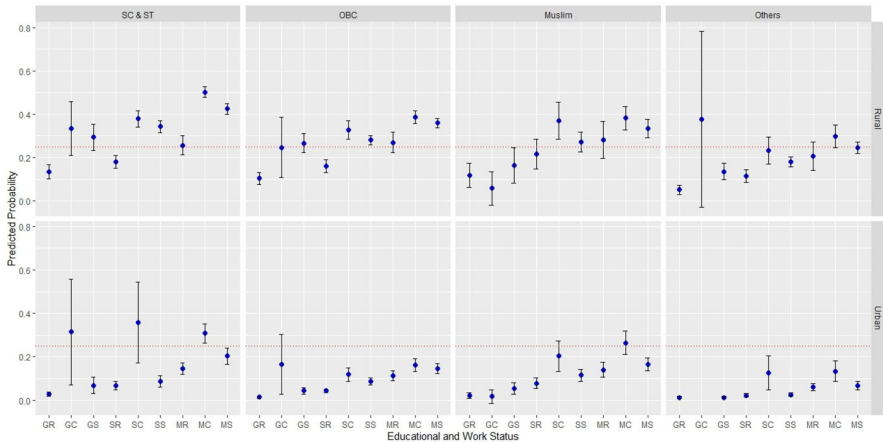
Fig. 4 Average Predicted Probability of Poverty along with 95% confidence intervals for respective Socio-Economic groups 2018–19. Source: Calculated using estimated logit regression presented in Table 18. Note: GR = Graduate and above working as regular worker, GC = Graduate and above working as Casual worker, GS = Graduate and above working as Self-employed, SR = Secondary educated and regular worker, SC = Secondary educated and casual worker, SS = Secondary Educated and Self-Employed, MR = Middle or less educated and regular worker, MC = Middle or less educated and casual worker, MS = Middle or less educated and Self-employed worker

mediated by pre-existing structural and institutional inequalities. The most powerful seems to be the place of residence (rural or urban), social group identity, and education. From a policy point of view, a focus on rural economy appears to be more critical since the disadvantaged in the other two factors are disproportionately located in rural areas. At the top of this ladder are 12 groups of households with an extreme poverty incidence of 10 percent or below are mostly urban and educated (9), regular work or urban self-employed (11). There is only one educated SCST household group engaged in urban self-employment at the top. At the bottom with a majority of households in extreme poverty (50 or more percent) are four less-educated rural households engaged in casual work. All except one group belong to the SCST category. The second one related to rewards for work and this is explored in a more detailed fashion by an exercise on wage inequality.

7 Probability of being Poor: A Logistic Regression

What we have represented in the bar chart is the outcome of the incidence of poverty when the population is divided into a certain socio-economic combination to reflect the location of residence, social group identity, education and the employment status. Given the large-scale sample it could be argued that a rigorous econometric exercise would bring out, in a cardinal scale, the likelihood as well as probability of being poor in comparison with a reference group with the best performance. A logistic regression model was therefore adopted to assess the disparity in likelihood and probability of poverty across comprehensive socio-economic

groups that is often imagined or assumed during popular discussions but is rarely represented in such comprehensive scale. Every other group was assessed in relation to often assumed most advantageous group i.e. socially advantaged group residing in urban areas belonging to households that are classified as graduates or above and having a regular employment status (classified as Urban-Others-Graduate or Above-Regular). The category 'Others' refers to all those who do not belong to SC, ST, Muslim, or OBC and thus consists of Upper Caste Hindus, Sikhs, Christians, and other minor groups. In other words, this group serves as reference category or benchmark. Through regression coefficient one can trace severity of disparity across socio-economic group; however, it lacks quantitative interpretation. In order to make it more instructive and intuitive we have used predicted probabilities as well odds (likelihood) ratio of poverty for each socio-economic group. The results are given in Tables 18 and 19.

For example, as per odds ratio presented in Table 19 none of the group has value lower than one which implies that our reference group has odds ratio of 1 by default and hence stands as the most advantageous group in reality because every other socio-economic group has value higher than 1. Rural SCST group employed as casual workers with low educational attainment (middle level or less) faces the highest odds ratio of poverty, i.e.78.6, implying that this group is 78.6 times more likely to face poverty compared to the most advantageous socio-economic group. In other words, this group faces highest probability of being poor (50%) while advantageous socio-economic group (1.3%). The second most disadvantages group is Rural self-employed SCST with lower education. These results may not be surprising, but they indicate the cardinal nature of disparity that exists in Indian society. The scale of disparity is simply mind boggling. A group faces 50% chance of poverty, while the group with least disadvantages faces negligible probability of poverty.

To make the results more tractable and comprehensible average predicted probabilities of poverty and respective confidence intervals are presented in Fig. 4. Households with different educational and employment status compared for given sector and social groups. The red line drawn at intercept value of 0.25 indicating national average predicted probability.

Compared to the national average, the probability of being poor for an overwhelming number of groups (68) is quite low. The exceptions are three SCST sub-groups working as casual workers and one Muslim sub-group working as casual with not more than middle level of education. This could be reckoned as a reflection of greater employment and wage opportunities in urban areas than the rural.

The situation in rural areas is quite different from that of the urban. Social group-based disparity in probability of being in poverty compared to the national average is, in general, more severe in rural areas compared urban areas. However, an important exception here is the socially advantageous group called Others. Only one sub-group with no more than middle level education and working as casual workers has a probability higher than that of the national average. OBC and Muslims tend to have very similar probabilities of poverty in rural India hovering around 29 percent with some difference within groups based on education and employment status. These two groups lie between two extremes. Dalit and Adivasi living rural India face poverty with average probability of 35 percent notwithstanding differences within

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Box 1 Understanding Performance of Poverty through a Logit Model

To assess the performance of poverty across socio-economic groups, a relative approach was adopted. Socio-economic group is thought of as combination of four categorical variables namely

1. Region of residence: Rural or Urban,

2. Social group identity: SCST, OBC, all Muslims and Others,

3. Employment status: Regular, Casual, and Self-employed. Employment status of a household was derived from weekly recall period or Current weekly status. The employment status of the most educated working member of the household was used to represent the employment status of the household, and

4. Educational status: Three levels of educational attainment ((i) Below Secondary identified in the data set as not more than middle level education, (ii) Secondary level identified as those who have a secondary or above level of education but below graduate degree, and (iii) those who have graduate level or higher. Household education level is represented by the most educated working member's educational status

Combination of these groups would produce 72 (2×4 x 3×3) socio-economic groups. These 72 socio-economic groups then were used as explanatory variable in a logit model with binary variable of poverty taking value 1 if household is poor and zero otherwise. From PLFS survey we could eventually get about 89,659 households with complete information that we could analyse out a total of 101,579 households surveyed. This is because not all households had workers. Household that had no working member were excluded from this analysis

In order to make results more instructive and intuitive we have also presented estimates of average predicted probabilities odds(likelihood) ratio of poverty corresponding to coefficients for each socio-economic group. The results are given in Tables 018 and 019. Predicted probabilities were derived using estimated model through Stata's 'margins' function which part of post-estimation tools in Stata

In producing and interpreting average predicted probabilities, I have followed Williams (2012) which provides comprehensive guide for production and interpretation of regression results through margins function. For instance, to calculate predicted average probability of poverty for households belonging to SCST category, we use the estimated regression to predict the probability of each household by keeping the value of all variables same it was for the original regression but for social group. For the purpose of predicting average predicted probability of poverty for SCST households we treat all households in the data as if it belonged to SCST category. Then by averaging the predicted probabilities of each household we get the population level average predicted probability of poverty for households belonging to SC/ST category. Similarly, to get the average probability of poverty for casual worker households we will keep value of every variable same as it is in the original data except for working status. We will treat every household as casual worker household irrespective of its actual working status. In summary, this method gives us a scenario of a hypothetical situation when entire population has a given value of a particular variable. This is a very helpful tool as it allows to estimate predicted values with high statistical power or lower margin of error

Households belong to Scheduled Castes (SC) and Scheduled Tribes (ST) were clubbed together since their status in an overwhelming number of socio-economic indicators were found to be at the bottom (see Kannan 2022). OBC means Other Backward Classes. Households without a working member could belong to pensioners and or receiving income from assets or remittances from non-resident family members. Some households with destitute members unable to work might also be found in this category

owing to educational and employment status that is quite visible from the top left panel of Fig. 2. On the other extreme is the 'Others' who face average probability of less than a quarter of what Muslims and OBCs face and one-fifth of what Dalits and Adivasis face, i.e. 7% obviously with some differences dictated by education and employment status. In Urban areas social gradation is less starker starting from 17

percent for Dalits and Adivasis, 14 percent for Muslims, 11 percent for OBCs and finally less than 7 percent for Others ignoring within group differences.

Education and employment-based gradation is also quite stark. In case of education, middle of less-educated households face probability of poverty close to national average i.e. 25 percent, while for secondary and graduate and above levels education predicted probabilities are around 17 percent and 7 percent. Similarly, probability of being in poverty for casual worker households is highest (31 percent), while self-employed households face 10 percentage point lower poverty (21 percent) and regular workers about 9 percent.

Interestingly, thing about this analysis is that it actually indicates which social groups are in which employment and educational categories because probabilities almost mimic the same situation irrespective of how we slice the data. For example, whether we look at probability of regular workers, graduate and above educated or others in terms of social group average probabilities hover around 7–9 percent implying that most 'Others' households do have regular jobs and have qualification that is graduate or above level.

Similar, Adivasis, low education status, and casual employment status tend to be same households because probabilities for all this groups hover around small range of 25–31 percent.

Such results indicate limited effectiveness with which Indian democracy has benefited the socially disadvantaged, especially the bottom groups of SC and ST, despite several constitutional safeguards. The fact that employment and educational statuses are by and large still anchored to social statuses of households signifies that despite 75 years of nation building, the distance to travel further is long and perhaps arduous. In all likelihood the neoliberal market road would exacerbate this inequality than reduce it (Box 1).

8 Concluding Remarks

What we have highlighted in this paper is also a record of the past 75 years since India's independence from British colonialism. From an employment perspective, the challenge of inclusive development clearly brings out the challenge of creating both the required quantity and quality of employment. The particular challenge in the former is the low and declining opportunities for women to participate in gainful employment activities. The problem of quality is perhaps much graver than the quantity, given the low, if not declining, opportunities for regular work with reasonable earnings to ensure a standard of living above subsistence. Even this notion of subsistence is satisfied for this category of workers only when we consider the internationally determined level of extreme poverty. If it is raised to a level of poverty, the challenge for India seems to be quite daunting with two-thirds of its households living below PPP\$3.2 per capita per day or a monthly consumption expenditure of between Rs. 8200 and 8500 per household in 2018–2019.

Such an outcome especially during a heightened and impressive economic growth of the last three-and-a-half decades is manifested in increasing inequality that is hardly taken up as a policy variable by successive regimes. The need for

the development of underdeveloped sectors such as agriculture and allied activities along with the sprawling small-scale industrial and service sector activities is quite evident. All these boil down to a great degree to the need for a sustained rural development process. But neoliberal economic policies work through a process of 'betting on the strong', and that happens to be through the urban-centred private corporate entities on the one hand and an urban-oriented, educationally advancing and asset-holding population, a disproportionate share of which come from socially advantaged groups. Such an outcome has exacerbated economic and social inequalities and strengthened the dualisms between formal and informal employment on the one hand and urban and rural areas, on the other. Instead of a course correction, political regime after regime has only sharpened and strengthened neoliberal economic policies unmindful of its distributional consequences.

Much of the initial and the evolving gaps in social, economic, and educational inequalities have a rural setting. However, the evolving picture in the world economy is likely to pose further challenges in linking growth with employment. The major one is the onset of what is called the Fourth Industrial Revolution and its likely impact on employment. Built on the Third Industrial Revolution of electronics and information technology it is moving into new paradigms of work and employment relationship through automation, robotics, and artificial intelligence erasing the constraints of space and time. It is a continuation of the Schumpeterian process of creative destruction. While new jobs are being created, existing and old jobs are being destroyed. The balance is difficult to predict but could lead to social and economic imbalances across and within countries.[16] The International Labour Organisation has been working on this theme and the publication of the 2021 World Employment and Social Outlook on *The role of digital labour platforms in transforming the world of work* is a pointer to the emergence of this segment in the Fourth Industrial Revolution. How will a country like India, with a rurality of employment (share of agriculture and non-agriculture in rural areas plus agriculture in urban employment in total employment) of 69 percent in 2018–19 cope with this challenge of the Fourth Industrial Revolution?

If political will can be summoned along with an overall rethinking of national priorities, I think there are reasons for hope.

The first is the rising educational attainments among youth since it is crucial in seizing new opportunities for gainful employment. For example, while only 14 percent of the adults in the working age population (20–39 years) had educational attainment of Secondary and above in 1983, it reached 48 percent in 2018–2019.

Secondly, there are several environmental challenges exacerbated by climate change. In the Indian context, as with most other developing countries, this has assumed many dimensions and levels from the local, regional, and national. The concept of environmental sustainability provides a much-needed new framework for economic planning and policy. The search for a greener economy is grounded in this framework. The employment potential of moving towards a green economy is

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[16] Narasimha Reddy's Radhakamal Mukerjee Memorial Lecture on this theme in 2019 Annual Conference of the Indian Society of Labour Economics has dealt with these issues.

also embedded in a Schumpeterian process of creative destruction. The ILO's 2018 World Employment and Social Outlook titled *Greening with Jobs* estimates that there will be a job loss of 6 million in the energy sector alone and a job gain of 24 million globally, thus creating a net job gain of 18 million (ILO 2018c). I think an environmentally sustainable framework could give the much-needed developmental push to the rural economies subject to political will. For India, this could reduce the currently increasing gap between the rural and urban economies. This calls for considerable research and extension work on the employment potential of moving towards a green economy given the agro-ecological variations in this vast country and the need for strengthening and expanding its natural capital base. It will, inter alia, help increase the land and labour productivity in the primary sector that could also help in industrial development.

Although dictated by their individual national contexts and challenges, the world seems to be preparing for a relook at the neoliberal strategies. But in India, politics seems to have successfully separated itself from economics and consequently the challenge of inclusive development, despite the contrarian rhetoric.

Appendix

See Tables 12, 13, 14, 15, 16, 17, 18, 19.

Table 12 Population of India and world (in million)

	India	World	India's share (%)
1901	238.4	1654.0	14.4
1951	361.09	2594.9	13.9
1991	846.43	5368.1	15.8
2020	1346.19	7752.8	17.4

Source: Census of India Reports and UN Population Prospects

Table 13 India: Percentage distribution of WAP (15–59)

	MEN				WOMEN			
	WPR	EPR	UE	LU	WPR	EPR	UE	LU
1983	87.8	7.7	2.2	4.6	46.7	3.3	0.6	49.9
1993–94	85.8	9.9	2.0	4.3	43.5	5.4	0.8	51.1
2004–05	84.8	10.7	2.1	4.4	43.1	7.2	1.2	49.6
2018–19	74.9	16.9	5.2	8.2	24.5	13.1	1.5	62.4
2019–20	76.6	16.1	4.5	7.3	30.0	12.8	1.4	57.2

WPR: means Work Participation Rate, *EPR*: means Educational Participation Rate i.e. those engaged in education; LU means Underutilized labour who are out of work and education but including those 'seeking work' (UE). Source: Computed from NSS and PLFS Rounds

Table 14 India: Percentage distribution of WAP (15–59) by activity status for estimating the Labour Underutilization by gender (M = Male, F = Female)

Year	Education Secondary & above						Education less than Secondary					
	WPR		EPR		LU		WPR		EPR		LU	
	M	F	M	F	M	F	M	F	M	F	M	F
1983	74.2	21.7	18.7	21.9	7.1	56.3	90.4	48.5	5.5	2.0	4.1	49.5
2018–19	64.6	17.5	26.2	26.7	9.2	55.8	84.1	28.4	8.6	5.5	7.3	66.1
2019–20	66.8	21.1	24.5	25.1	8.7	53.8	85.6	35.3	8.4	5.5	6.1	59.2

Abbreviations as in 013. Source: Computed from unit level data from different Rounds of the NSS on Employment and Unemployment and Periodic Labour Force Surveys (PLFS) for 2018–19 and 2019–20

Table 15 Estimates of 'Missing women' or those excluded from the labour force and education (total and incremental)

Year	WAP (Million	LFPR	EPR	CPR	Out of LF&E	Change from 1983(%)	Total (OLF&E) (in Million)	Missing Women (in Million)*
Secondary and Above								
1983	12.4	27.1	21.9	49.0	50.9	-	6.31	-
2018–19	154.5	21.1	26.7	49.8	52.2	-1.3	80.65	− 2.01
2019–20	158.2	24.6	25.1	49.0	50.3	0.06	79.57	0.95
Below Secondary								
1983	174.9	48.8	2.0	50.8	49.2	–	86.07	–
2018–19	274.3	28.7	5.5	34.2	65.8	+ 16.6	180.70	45.54
2019–20	268.4	35.5	5.5	41.0	59.0	+ 9.8	152.28	26.30

*As compared to the share of "Out of LF and E" in 1983. WAP = Working age population (15–59), LFPR = Labour Force Participation Rate, EPR = Educational Participation Rate, CPR = Combined (LFPR + EPR) Participation Rate, OLF&E means Out of labour force and education. Source: Computed from unit level data from NSS and PLFS

Table 16 Incidence of Extreme Poverty and Poverty in India by Social group at PPP$1PCPD and 3.2PCPD in 2018–2019

PPP$1.9 Per capita per day

	Rural			Urban		
	AS	BS	All	AS	BS	All
Social Group						
SAG	15.5	27.7	18.3	2.2	6.7	4.2
OBC	27.2	41.5	38.1	5.8	15.3	11.4
Muslim	24.8	41.2	30.86	9.9	22.0	18.8
SCST	31.2	50.1	46.8	10.2	24.0	19.7
All	25.1	42.6	38.7	5.3	16.4	11.8
PPP$3.2 Per capita per day						
SAG	56.8	72.7	67.4	14.8	34.7	23.8
OBC	70.0	84.0	80.7	28.1	51.5	41.9
Muslim	69.9	86.6	84.0	40.5	67.2	60.0
SCST	73.7	88.1	85.6	35.8	63.8	55.1
All	67.6	84.2	80.5	24.8	53.2	41.5

Note: SAG = Socially advantaged group i.e. Other than OBC, Muslim, SC and ST, OBC = Other Backward Classes, SCST = Scheduled Castes and Scheduled Tribes.
Source: Computed from unit level data from PLFS 2018–19

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Table 17 Selected Decent Work Indicators for India

Indicators	2004–05	2011–12	2017–18	2019–20
RIGHTS AT WORK				
1. Child labour: Economically Active Children (in workforce)	6.5	2.8	1.3	1.1
Children in the Age Group of 5–14 Not in School (Percent)	18.1	9.7	6.4	6.2
2. Women in the workplace (Share of women in total workers)	32.0	27.1	22.7	27.2
2c. Male–Female LFPR Gap of Adults (Percentage Points)	42.0	49.0	52.8	47.5
EMPLOYMENT AND INCOME				
4. Labour force participation rate (as % of adult population)	63.4	55.5	49.7	53.3
5. Employment-to-adult population ratio (15 years & above)	61.9	54.3	46.7	50.7
6. The working poor (% of wage workers not getting a recommended National Minimum Wage of Rs.375/day)			68.1	
8a. Unemployment: 8a. Total unemployment rate	2.4	2.2	6.1	4.9
8b. Unemployment among the educated (i) Secondary & above but below graduation	5.8	3.3	8.5	6.4
8c. Unemployment rate among Graduates & above	8.5	7.6	16.1	15.6
9. Youth unemployment (15–24 years)	6.9	8.3	24.3	19.5

Table 17 (continued)

Indicators	2004–05	2011–12	2017–18	2019–20
10. Youth inactivity: Not in LF& Education	22.3	21.5	22.6	20.4
SOCIAL PROTECTION AND SOCIAL SECURITY				
15a. Informality: Share of employment in Informal Sector (in enterprises and households)	86.1	82.0	79.4	80.0
15b. Informality: Share of Informal employment (in Informal and Formal Sectors) in total employment	92.2	91.8	90.0	89.2
15c. Social security: Percentage of workers not having any social security	69.8	72.0	71.2	71.8
SOCIAL DIALOGUE				
18. Trade union membership rate among non-agricultural workers*	20.9	17.7	NA	NA

Source: Computed from unit level data from NSS 61st and 68th Rounds and PLFS 2017–18 and 2019–20. *From ILO (2018)

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Table 18 Binary logit regression coefficient with poverty as dependent variable, 2018–19

Social category	Work Status	Educational Status	Rural			Urban		
			Coeff. Value	SE	Z value	Coeff. value	SE	Z Value
SCST	SE	MOL	4.05	0.22	18.47	2.99	0.24	12.23
SCST	SE	SEC	3.71	0.22	16.64	2.00	0.27	7.32
SCST	SE	GRA	3.48	0.26	13.38	1.75	0.37	4.69
SCST	RE	MOL	3.29	0.25	13.41	2.59	0.24	10.71
SCST	RE	SEC	2.84	0.24	11.96	1.73	0.26	6.62
SCST	RE	GRA	2.50	0.26	9.58	0.83	0.29	2.90
SCST	CA	MOL	4.36	0.22	19.89	3.55	0.24	14.87
SCST	CA	SEC	3.86	0.23	16.92	3.78	0.47	8.12
SCST	CA	GRA	3.66	0.36	10.27	3.58	0.61	5.84
OBC	SE	MOL	3.78	0.22	17.28	2.60	0.23	11.18
OBC	SE	SEC	3.42	0.22	15.53	2.01	0.24	8.53
OBC	SE	GRA	3.34	0.24	13.73	1.26	0.27	4.56
OBC	RE	MOL	3.36	0.25	13.70	2.31	0.24	9.44
OBC	RE	SEC	2.71	0.24	11.26	1.26	0.24	5.15
OBC	RE	GRA	2.20	0.26	8.37	0.12	0.27	0.44
OBC	CA	MOL	3.89	0.22	17.49	2.72	0.24	11.31
OBC	CA	SEC	3.64	0.23	15.50	2.35	0.26	9.03
OBC	CA	GRA	3.24	0.44	7.40	2.74	0.55	4.94
MUS	SE	MOL	3.66	0.24	15.58	2.73	0.24	11.38
MUS	SE	SEC	3.37	0.24	13.80	2.32	0.25	9.13
MUS	SE	GRA	2.72	0.37	7.35	1.50	0.34	4.41
MUS	RE	MOL	3.42	0.30	11.36	2.54	0.26	9.86
MUS	RE	SEC	3.07	0.30	10.39	1.90	0.27	6.90
MUS	RE	GRA	2.35	0.35	6.69	0.58	0.37	1.59
MUS	CA	MOL	3.87	0.24	15.81	3.34	0.25	13.10

Table 18 (continued)

Social category	Work Status	Educational Status	Rural			Urban		
			Coeff. Value	SE	Z value	Coeff. value	SE	Z Value
MUS	CA	SEC	3.82	0.28	13.45	2.99	0.31	9.70
MUS	CA	GRA	1.59	0.74	2.16	0.31	0.99	0.31
SAG	SE	MOL	3.23	0.23	14.28	1.73	0.26	6.65
SAG	SE	SEC	2.85	0.23	12.46	0.70	0.27	2.62
SAG	SE	GRA	2.51	0.27	9.28	0.05	0.31	0.17
SAG	RE	MOL	3.01	0.29	10.21	1.60	0.26	6.12
SAG	RE	SEC	2.31	0.26	8.93	0.61	0.28	2.20
SAG	RE	GRA	1.45	0.32	4.60	**0**		
SAG	CA	MOL	3.49	0.25	14.07	2.49	0.30	8.27
SAG	CA	SEC	3.16	0.28	11.45	2.42	0.43	5.70
SAG	CA	GRA	3.85	0.91	4.24			

Source of data: Unit level data of PLFS 2018–19

SE = Self-employed, *RE* = Regular, *CA* = Casual. MOL = Middle level or less, *SEC* = Secondary or above but below graduate, *GRA* = Graduate or above. *SAG* = Socially advantaged group or called 'Others' in the text. Mus = Muslim, *OBC* = Other Backward Classes, *SCST* = Scheduled Castes and Scheduled Tribes

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Table 19 Odd ratio and Predicted probability of binary logit regression corresponding to regression result presented in Table 018 (in %)

Soc-Cat	Work Status	Ed level	Odds Ratio						Predicted Probability (PP)					
			Rural			Urban			Rural			Urban		
			Odds Ratio	SE	Z value	Odds Ratio	SE	Z value	PP	SE	Z value	PP	SE	Z value
SCST	SE	MOL	57.44	12.60	18.47	19.93	4.88	12.23	42.5	0.012	34.97	20.4	0.019	10.53
SCST	SE	SEC	40.77	9.08	16.64	7.40	2.02	7.32	34.4	0.014	24.12	8.7	0.014	6.42
SCST	SE	GRA	32.36	8.41	13.38	5.76	2.15	4.69	29.4	0.031	9.56	6.9	0.020	3.51
SCST	RE	MOL	26.97	6.62	13.41	13.27	3.20	10.71	25.7	0.023	11.11	14.6	0.014	10.42
SCST	RE	SEC	17.14	4.07	11.96	5.61	1.46	6.62	18.0	0.015	11.76	6.7	0.009	7.18
SCST	RE	GRA	12.13	3.16	9.58	2.30	0.66	2.9	13.5	0.017	7.74	2.9	0.005	5.33
SCST	CA	MOL	78.60	17.25	19.89	34.72	8.28	14.87	50.2	0.013	40.02	30.8	0.023	13.61
SCST	CA	SEC	47.57	10.86	16.92	43.64	20.29	8.12	37.9	0.019	20.08	35.9	0.095	3.78
SCST	CA	GRA	38.88	13.85	10.27	35.95	22.05	5.84	33.3	0.063	5.26	31.6	0.124	2.54
OBC	SE	MOL	43.66	9.54	17.28	13.40	3.11	11.18	35.9	0.011	33.93	14.7	0.011	12.94
OBC	SE	SEC	30.55	6.73	15.53	7.44	1.75	8.53	28.2	0.011	26.13	8.7	0.008	11.15
OBC	SE	GRA	28.30	6.89	13.73	3.51	0.96	4.56	26.7	0.023	11.68	4.3	0.007	6.04
OBC	RE	MOL	28.83	7.07	13.7	10.03	2.45	9.44	27.0	0.024	11.36	11.4	0.012	9.53
OBC	RE	SEC	15.04	3.62	11.26	3.51	0.86	5.15	16.2	0.015	10.75	4.3	0.005	8.90
OBC	RE	GRA	9.06	2.39	8.37	1.13	0.31	0.44	10.4	0.014	7.25	1.4	0.002	6.12
OBC	CA	MOL	48.95	10.89	17.49	15.13	3.64	11.31	38.6	0.015	26.19	16.3	0.015	10.86
OBC	CA	SEC	38.03	8.93	15.5	10.51	2.74	9.03	32.8	0.021	15.29	11.9	0.016	7.62
OBC	CA	GRA	25.57	11.19	7.4	15.43	8.55	4.94	24.7	0.071	3.48	16.5	0.071	2.34
MUS	SE	MOL	38.96	9.16	15.58	15.34	3.68	11.38	33.3	0.022	15.27	16.5	0.015	10.95
MUS	SE	SEC	29.11	7.11	13.8	10.13	2.57	9.13	27.2	0.023	11.58	11.5	0.014	8.29
MUS	SE	GRA	15.20	5.63	7.35	4.48	1.52	4.41	16.3	0.041	3.95	5.4	0.014	4.00
MUS	RE	MOL	30.52	9.19	11.36	12.68	3.27	9.86	28.2	0.043	6.57	14.0	0.017	8.07
MUS	RE	SEC	21.45	6.33	10.39	6.65	1.83	6.9	21.6	0.034	6.27	7.9	0.013	6.28

Table 19 (continued)

Soc- Cat	Work Status	Ed level	Odds Ratio						Predicted Probability (PP)					
			Rural			Urban			Rural			Urban		
			Odds Ratio	SE	Z value	Odds Ratio	SE	Z value	PP	SE	Z value	PP	SE	Z value
MUS	RE	GRA	10.46	3.67	6.69	1.79	0.66	1.59	11.8	0.029	4.08	2.2	0.007	3.44
MUS	CA	MOL	48.07	11.77	15.81	28.08	7.15	13.1	38.2	0.028	13.5	26.5	0.027	9.83
MUS	CA	SEC	45.52	12.92	13.45	19.90	6.13	9.7	36.9	0.044	8.48	20.4	0.036	5.65
MUS	CA	GRA	4.90	3.60	2.16	1.36	1.35	0.31	5.9	0.039	1.51	1.7	0.016	1.05
SAG	SE	MOL	25.33	5.73	14.28	5.63	1.46	6.65	24.5	0.014	17.69	6.7	0.009	7.25
SAG	SE	SEC	17.25	3.94	12.46	2.02	0.54	2.62	18.1	0.012	15.06	2.5	0.004	6.27
SAG	SE	GRA	12.28	3.32	9.28	1.06	0.33	0.17	13.6	0.019	7.00	1.3	0.003	4.41
SAG	RE	MOL	20.26	5.97	10.21	4.97	1.30	6.12	20.7	0.033	6.22	6.0	0.009	7.03
SAG	RE	SEC	10.08	2.61	8.93	1.84	0.51	2.2	11.5	0.015	7.74	2.3	0.004	5.83
SAG	RE	GRA	4.26	1.34	4.60	**1.00**			5.2	0.011	4.55	1.3	0.003	4.74
SAG	CA	MOL	32.94	8.18	14.07	12.07	3.63	8.27	29.7	0.026	11.24	13.4	0.025	5.44
SAG	CA	SEC	23.62	6.52	11.45	11.28	4.80	5.7	23.3	0.031	7.45	12.7	0.041	3.11
SAG	CA	GRA	47.04	42.68	4.24				37.7	0.207	1.82			

Abbreviations as given in the footnote to Table 18

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