Productivity *Analysis*

Base of the Pyramid During the COVID-19 Pandemic: Steps to Address Widening Disparities in India

Dr. S. Mahendra Dev

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BASE OF THE PYRAMID DURING THE COVID-19 PANDEMIC: STEPS TO ADDRESS WIDENING DISPARITIES IN INDIA

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CONTENTS

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EXECUTIVE SUMMARY

COVID-19 is an unprecedented challenge for India. The economic shock has been extremely severe. India's large informal sector is particularly vulnerable. Its huge population and the economy's dependence on informal labor make lockdowns and other social-distancing measures significantly disruptive. This paper addresses three questions in India: 1) What was the pre-COVID-19 inequality and employment situation? 2) Has the pandemic led to widening inequalities? 3) What are the policies needed to reduce these inequalities?

The lockdown and the associated economic shock have caused severe misery to poor informal workers. The Indian economy is projected to have negative growth in fiscal year 2020–21. The unemployment rate has multiplied three-fold in 2020. Out of the 122 million jobs lost, small traders and wage laborers lost 91 million.

India has many working poor and already had high inequalities in the pre-COVID-19 period. The incomes of the base of the pyramid were very low. The coronavirus pandemic will hurt the poor much more than the middle class and the rich. The long period of lockdown affected their livelihoods, and many may fall into poverty. 400 million informal workers in India were at risk of falling deeper into poverty during the crisis. The impact of the pandemic will raise inequalities further.

Both the central and state governments promptly announced fiscal packages to tackle the economic challenges brought about by COVID-19. Many of the measures relate to liquidity and reforms involving land, labor, liquidity, and laws. But there is also a need to help the bottom of the pyramid. Assistance under social safety nets including food and nutritional assistance and cash transfers must be increased to minimize the misery of the poor and vulnerable workers. Micro, Small and Medium Enterprises (MSMEs) and microfinance institutions (MFIs) also need help. The cost of ignoring hunger, food and nutrition security, and job losses at this stage would be much higher than in normal periods.

Inequalities are high and rising in India. The creation of productive employment is the best way of achieving inclusive growth. Resolving inequality cannot be left to markets. Public policy intervention is important. Quality employment creation should be at the heart of strategies for reducing inequalities and continued social exclusion experienced by large sections of society. Pro-poor macroeconomic policies, sectoral policies that raise productive employment, social protection, policies relating to equality of opportunity in terms of education for all, and affirmative policies are needed for reducing labor market inequalities in India. In a large country like India, more studies at state, district, and village levels are needed to identify the inequalities and policies to help the bottom of the pyramid.

INTRODUCTION

The coronavirus pandemic has led to health and economic shocks to India and the world. Since its start in Wuhan, PR China, in December 2019, the outbreak spread to over 202 countries in four months. The most affected countries were the USA, Italy, Spain, Germany, France, IR Iran, and the UK. India took early action to limit the spread of COVID-19, ordering a 21-day nationwide lockdown for its population of 1.3 billion people starting 25 March 2020. Subsequently, the lockdown was extended to 3 May and again with some relaxations to 17 May. The novel coronavirus spread in India relatively later compared with other countries, and the number of reported infections was low initially. However, as COVID-19 cases increased rapidly, there was great concern about the disease's potential impact. India knew that it had to be ready for a possible surge and that the health system would be tested if the pandemic spread widely.

The government viewed the pattern of the spread of COVID-19 as similar to the 2009 H1N1 influenza pandemic, meaning that it was unlikely to be uniform. After the 40-day lockdown period, it divided the country into the Red Zone, Orange Zone, and Green Zone. It planned to maintain restrictions in the Red Zone and hotspots and relax them in other places. Those measures helped in limiting the health crisis, but, as in other countries, the complete shutdown of all economic activities except for essential services created an economic crisis and misery for the poor, with massive job losses and rising food insecurity.

The economic shock will be much more severe for India, for two reasons. First, pre-COVID-19, the economy was already slowing down, compounding existing problems of unemployment, low incomes, rural distress, malnutrition, and widespread inequality. Second, India's large informal sector is particularly vulnerable. Out of the national total of 465 million workers, around 91% (422 million) were informal workers in 2017–18. Lacking regular salaries or incomes, these agriculture, migrant, and other informal workers were hardest hit due to COVID-19.

Against this background, this paper addresses three questions in India: 1) What was the pre-COVID-19 inequality and employment situation? 2) Has the pandemic led to widening inequalities? 3) What are the policies needed to reduce these inequalities?

PRE-COVID-19 INEQUALITY AND EMPLOYMENT SITUATION

Inequality

The biggest inequality in India has been the slow progress in social indicators and human development in spite of high economic growth. One example is that nearly 40% of India's children suffered from malnutrition in 2015–16. The quality of employment, health, and education is a major concern.

The approach of growth with equity has been followed since independence. However, the focus has been more on absolute poverty than on inequality. Poverty numbers show that it declined faster in the postreform period as compared with previously. Within the postreform period, poverty declined faster during 2004–05 to 2011–12 than during 1993–94 to 2004–05. However, inequality increased during the postreform period.

In India, consumer expenditure from the National Sample Survey is generally used to estimate inequality. As shown in Table 1, the consumption Gini coefficient was 0.36 in 2011–12 (Figure 1). On the other hand, inequality in income is high with a Gini coefficient of 0.55, while the wealth Gini coefficient was 0.74 in 2011–12 (Table 1). Income Gini was 20 points higher than consumption Gini, while wealth Gini was nearly 40 points higher than consumption Gini. Thus, inequality in income and wealth is much higher than that in consumption. Inequality in consumption and wealth is lower in rural as compared with urban areas. However, inequality in income is higher in rural than urban areas.

India has the second-highest inequality next to South Africa if based on income instead of consumption (Figure 2) [3]. Many studies have shown that inequality in consumption increased in the postreform period. Most show that it increased marginally in rural areas while it rose significantly in urban areas. Table 2 provides trends in inequality in consumption, income, and wealth. It shows that

TABLE 1

CONSUMPTION, INCOME, AND WEALTH INEQUALITY IN INDIA: RURAL, URBAN, AND TOTAL, 2011–12.

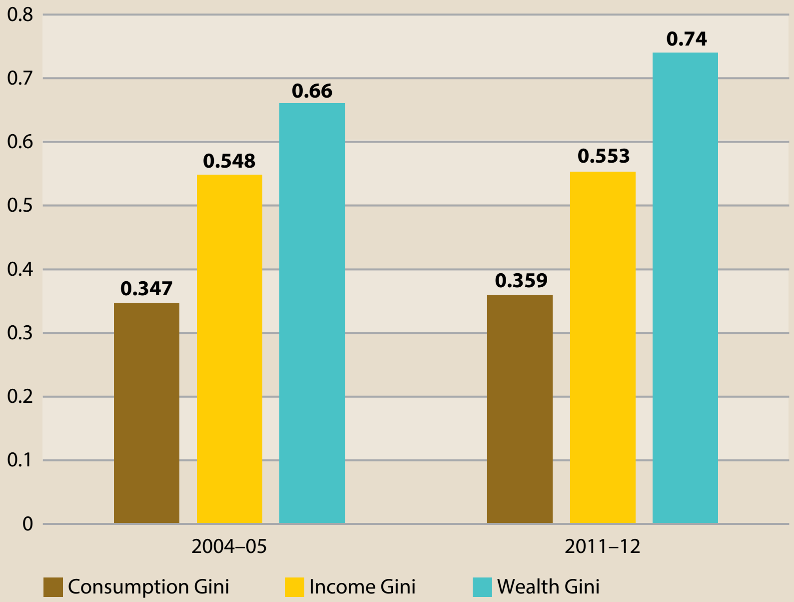
Sector	Total	Rural	Urban
Consumption Gini	0.359	0.287	0.377
Income Gini	0.553	0.541	0.506
Wealth Gini*	0.740	0.670	0.770

*Refers to 2012.

Sources: [1] for consumption Gini; income Gini coefficients are estimated from the data of the Indian Human Development Survey; [2] for wealth Gini coefficients.

FIGURE 1

TRENDS IN INEQUALITY IN CONSUMPTION, INCOME, AND WEALTH.

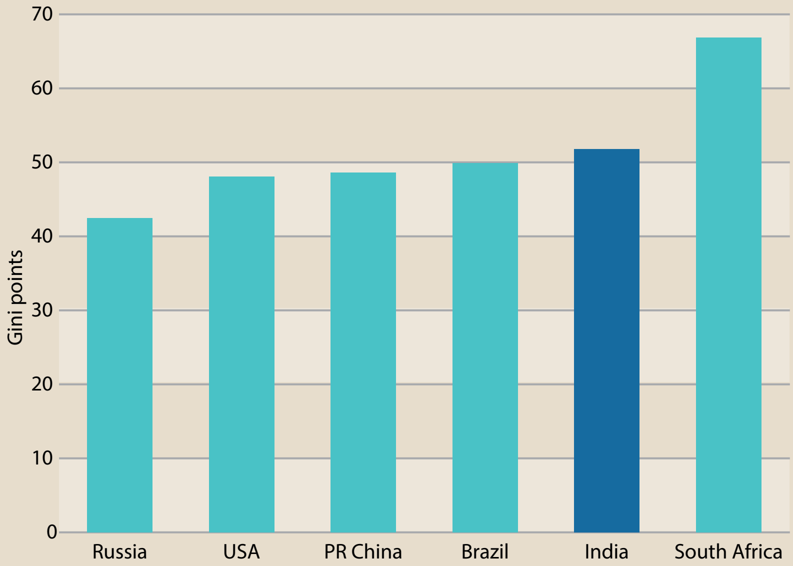


Source: Same as for Table 1.

consumption and income Gini increased marginally between 2004–05 and 2011–12. However, wealth inequality increased significantly from 0.66 to 0.74, or by 8 points, during the same period.

FIGURE 2

INCOME INEQUALITY IN INDIA COMPARED WITH OTHER COUNTRIES.



Source: [3].

TABLE 2

TRENDS IN INEQUALITY (RURAL + URBAN).

Sector	1993–94	2004–05	2011–12
Consumption Gini	0.300	0.347	0.359
Income Gini	—	0.548	0.553
Wealth Gini *	0.650	0.660	0.740

*Wealth Gini refers to 1991, 2002, and 2012.

Sources: Same as for Table 1.

A 2018 Credit Suisse survey showed that India's richest 1% held 58% of the country's total wealth, which was higher than the global figure of about 50%. According to the survey, the wealth of this elite group increased by over INR20.9 trillion during the period under review, i.e., an amount close to the total expenditure estimated in the Union Budget 2017. India's top 1% of the population now holds 73% of the wealth, while 670 million citizens, comprising the country's poorest half, saw their wealth rise by just 1%. The 2019 Global Wealth Report showed that India's Gini coefficient for wealth was 83.2, which was higher than PR China's Gini coefficient of 70.2.

Employment

In employment, worker participation rates have declined for both men and women (Table 3). However, the decline was much faster for women, particularly in rural areas. Moreover, the participation rates of women are low and declining. These rates were only 22% for women compared with 71% for men in 2017–18.

TABLE 3

WORK PARTICIPATION RATES (FOR THOSE AGED 15 YEARS AND OLDER).

Years	Male			Female		
	Rural	Urban	Total	Rural	Urban	Total
2004–05	84.6	76.3	82.2	48.5	22.7	41.6
2009–10	81.2	74.0	79.1	37.2	18.3	31.8
2011–12	80.0	74.1	78.1	35.2	19.5	30.5
2017–18	72.0	69.3	71.2	23.7	18.2	22.0

Source: Periodic Labor Force Survey, 2017–18, National Statistical Office, Delhi.

In fact, 34 million women dropped out of the labor force during the period 2011–12 to 2017–18. It is true that the share of women attending educational institutes has increased over time. At the same time, the share of women attending domestic duties has also risen. However, there seems to be a demand problem in the economy. Dropping out of the labor force by the poor and women may be more of a "discouraged worker" problem. In other words, they drop out of the workforce as they perceive that jobs are not available. There are constraints on women in a male-dominated society but demand for work is important for their participation. There is a need to increase the participation rates of women which are much lower than in many other Asian countries including Bangladesh. Former IMF Chief Christine Lagarde said that increased women's participation rates would raise GDP by 40% in India.

Labor Market Inequalities

The Indian labor market has the characteristics of high dependence on agriculture, domination of the informal sector, virtual absence of unemployment insurance or social wages, the problem of the working poor, a large share of self-employed, gender bias, and seasonal migration. Another peculiar characteristic is that caste, tribe, kinship, etc. remain important determinants of access to quality employment.

Inequalities can be found across sectors, wages and earnings, quality of work, and labor market access and between the organized and unorganized sector. Labor market segmentation is another important issue regarding inequalities. Wage differentials cannot be explained by economic factors alone in spite of increasing occupational and geographical mobility. Segmentation based on occupational skills and consequently industry and sector is well known.

Working Poor: Inequalities in Employment Status

There are different categories of employment in both the organized and unorganized sectors. The income differences among these workers are enormous. Poverty ratios for these categories of workers provide some idea of inequalities among workers. Table 4 shows the shares of the working poor among organized and unorganized workers. The regular formal category in the organized sector has the highest rank with the lowest poverty. This is followed by the regular informal category in the organized sector, regular informal category in the unorganized sector, and self-employed in the unorganized sector. Poverty in casual labor in the organized sector is higher than in all the other categories of employees. Casual labor in the unorganized sector has the highest poverty with the lowest rank.

TABLE 4

WORKING POOR IN EMPLOYED HOUSEHOLDS AND SHARE OF WORKERS IN TOTAL BY EMPLOYMENT STATUS.

	Incidence of poverty (%) 2011–12	Rank	Share in total workers (poor + nonpoor) (%) 2012
Regular formal (organized sector)	3.2	1	8.4
Regular informal (organized sector)	8.7	2	5.8
Regular informal (unorganized sector)	16.2	3	7.2
Self-employed (unorganized sector)	23.6	4	48.0
Casual (organized sector)	29.9	5	3.1
Casual (unorganized sector)	37.6	6	27.1
All employed	24.6	—	100.0

Source: Adapted from [4].

Table 4 also shows shares of different categories in total workers (poor + nonpoor). It reveals that self-employed and casual workers in the unorganized sector constitute two-thirds of the total and the incidence of poverty is also the highest among these categories. In other words, most of the working poor are concentrated among self-employed and casual workers in the organized sector. Agricultural labor households are also casual workers and their poverty is also very high. Increases in wages are important to reduce poverty among casual workers.

TABLE 5

JOB GAINS/LOSSES IN 2017–18 COMPARED WITH 2011–12.

Education status	Gender	Labor status	Location	Job gain/ loss (%)	Job gain/loss (millions)
Below secondary	Women	Self-employed	R	−29.1	−15.56
		Wage labor	R	−29.0	−10.45
		Self-employed	U	−15.9	−1.30
		Wage labor	U	−1.7	−0.16
		Self-employed	R+U	−27.3	−16.87
		Wage labor	R+U	−23.1	−10.62
	Men	Wage labor	R	−17.4	−14.49
		Wage labor	U	−2.1	−0.71
		Self-employed	U	−0.3	−0.06
		Self-employed	R	4.2	3.93
		Wage labor	R+U	−12.9	−15.21
		Self-employed	R+U	3.3	3.87
Secondary and above	Women	Self-employed	R	−11.6	−0.71
		Self-employed	U	5.2	0.17
		Wage labor	R	51.5	2.02
		Wage labor	U	75.0	4.20
		Self-employed	R+U	−5.8	−0.54
		Wage labor	R+U	65.6	6.22
	Men	Self-employed	U	9.9	2.13
		Self-employed	R	15.7	5.44
		Wage labor	U	37.1	10.61
		Wage labor	R	40.3	8.78
		Self-employed	R+U	13.4	7.58
		Wage labor	R+U	38.5	19.39

R, rural; U, urban.
Note: The shaded area represents groups with net job losses.
Source: [5].

Gainers and Losers in Employment: Educated below Secondary and Secondary and above

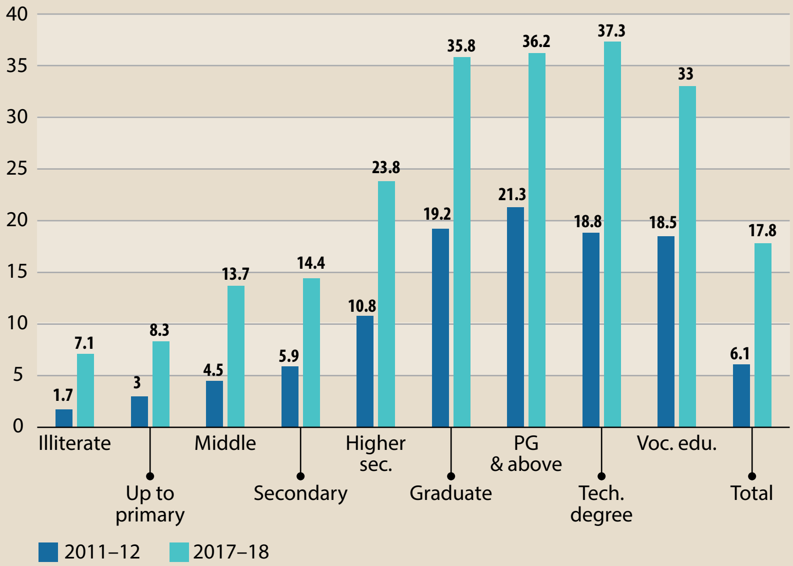
The self-employed and wage labor are poorer than regular workers. Table 5 shows job gains/losses for women and men by education. It reveals that out of eight categories of workers among the less educated, seven categories experienced net losses while the educated gained in jobs [5].

Youth Unemployment

The rate of unemployment among youth increased significantly from 6.1% in 2011–12 to 17.8% in 2017–18 (Figure 3). It increased for all categories of youth workers, but the level of youth unemployment is very high for the educated.

FIGURE 3

YOUTH UNEMPLOYMENT, 2011–12 AND 2017–18.



Source: Same as for Table 1.

High Share of Informal Sector

India has one of the highest numbers and proportions of informal workers in the world. The share, which includes agricultural workers, declined marginally from 94% in 2004–05 to 91% in 2017–18 (Table 6). Out of a total of 465 million workers, 422 million were informal workers in 2017–18. Even in nonfarm sectors (manufacturing and services), the share of informal workers was around 84% in the same year. It shows that even in the organized sector, contractual employment has been increasing faster. There was some increase in the formal sector but it does not compensate for the losses among the poor and women.

TABLE 6

INFORMAL EMPLOYMENT: NUMBER AND SHARES.

	Total employment (millions)	Informal employment (millions)	Share of informal workers in total employment (%)
2004–05	459.4	430.9	93.8
2011–12	474.2	436.6	92.5
2017–18	465.1	421.9	90.7

Source: [6].

Small Size of Establishments and the "Missing Middle"

The structure of nonagricultural establishments shows that 98.6% have fewer than 10 workers. Own-account workers constitute 66.4% of total establishments [7]. India's nonhousehold subsector of manufacturing has a bi-model structure with 40% of workers in the Directory of Manufacturing Establishments (DME) size class of 6–9, while 25% of the workers were in the 499+ size class. Some studies indicate that the "missing middle" is responsible for the slow growth of the manufacturing and unequal growth of the service sector [8].

IMPACT OF COVID-19 ON THE POOR AND WIDENING INEQUALITIES

The impact of COVID-19 on the Indian economy is different from that of the global financial crisis. The lockdown because of the coronavirus choked off almost all economic activity. But the worst affected are the bottom of the pyramid, particularly informal workers including migrants. In urban areas, the pandemic has led to widespread losses of jobs and incomes for informal workers and the poor. Similarly, agriculture and rural activities were also affected due to lockdowns.

Impact on the Indian Economy

The International Monetary Fund (IMF) has called this crisis the greatest lockdown and worst recession since the Great Depression and far worse than the global financial crisis. The latest World Economic Outlook of the IMF projected global growth in 2020 to fall to –3%. As compared with January 2020 projections, this is a downgrade of 6.3 percentage points. It also projected global growth in 2021 to rebound to 5.8%. Table 7 shows projections for different countries and regions. Europe and the USA were projected to grow at –7% and –6%, respectively, in 2020. It looks like both advanced economies and emerging market and developing economies are under recession. The IMF projections show that, among the major economies, only India and PR China might record positive growth in 2020.

The lockdown announced by the Government of India has stalled economic activity. There is only limited disruption of agriculture and allied activities and public distribution and defense. However, most of the activities under airlines, hospitality, retail, manufacturing, and restaurants shut down. Several other service sectors are also affected.

In its Monetary Policy Report, the Reserve Bank of India (RBI) summarized the possible impact of the pandemic on the Indian economy as quoted below [9]:

> *"The global macroeconomic outlook is overcast with the COVID-19 pandemic, with massive dislocations in global production, supply chains, trade and tourism. Financial markets across the world are experiencing extreme volatility; global commodity prices, especially of crude oil, have declined sharply. COVID-19 would impact economic activity in India directly due to lockdowns, and through second round effects operating through global trade and growth. The impact of COVID-19 on inflation is ambiguous, with a possible decline in food prices likely to be offset by potential cost-push increases in prices of non-food items due to supply disruptions."*

Turning to GDP projections for India, several agencies have given their estimates for 2020–21. Table 7 shows that the estimates range from –5.0 % by Nomura to 4.0% by the ADB. These numbers may be revised by all these agencies/institutions over time. The GDP in the first quarter (April–June) of 2020–21 was expected to decline by 20% according to several agencies.

COVID-19 and the lockdown will have severe adverse impacts on the economy and livelihoods that were already slowing down. The government has to deal with both health and economic shocks simultaneously. The economic shock will impact both formal and informal sectors.

TABLE 7

PROJECTIONS OF GDP GROWTH IN INDIA FOR 2020–21 (%).

Institution/agency	Projections of GDP growth in 2020–21 (%)
Nomura	–5.0
ICRA	–1 to –2
Goldman Sachs	–0.4
Barclays	0.0
Moody's Investment Services	0.0
Fitch Ratings	0.8
Deutsche Bank	1.2
World Bank	1.5 to 2.8
IMF	1.9
ADB	4.0

Source: Compiled by the author.

Earlier, the Indian economy had mostly a demand problem. Now, lockdown of entire activities means compression of both demand and supply. On the demand side, consumption, investment, and exports are subdued. Domestic and global supply disruptions will lead to supply-side problems in many sectors. The magnitude of the impact depends on the duration and intensity of the pandemic and lockdown. There have been massive disruptions in global production supply chains, tourism, and trade. Loss of external demand due to the global slowdown will reduce India's growth prospects.

The problem of the twin balance sheet (corporate and banking) will be accentuated further with more stress in the corporate and financial sectors. It will take some time for all the economic activities to restart operations even after the lockdown ends. The MSME sector will be badly hit by reduced cash flows. In the banking sector, nonperforming assets (NPAs) are likely to increase for all scheduled commercial banks, nonbanking finance companies (NBFCs), and microfinance institutions (MFIs). NPAs could be much more for retail loans. The financial markets are in turmoil with considerable reductions in stock prices.

Agriculture and Rural Activities

The agriculture sector is critical as many workers and the entire country's population is dependent on it. The performance of agriculture is also important for the state of rural demand. Although harvesting activities are not affected, COVID-19 has impacted agriculture due to problems in supply chains.

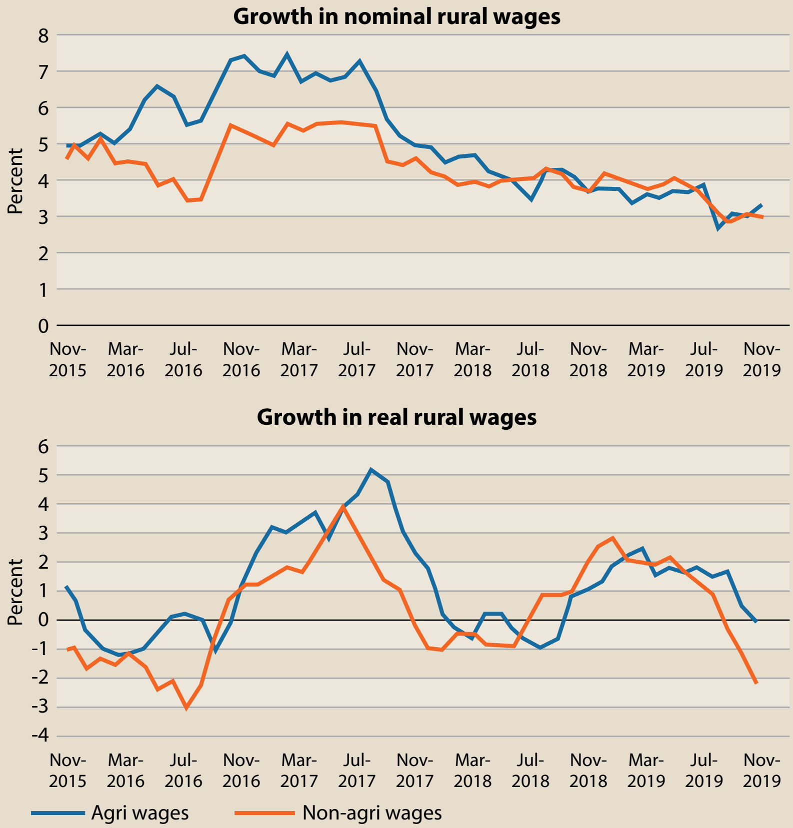
Growth in rural wages was subdued in the pre-COVID-19 period, particularly for agricultural labor in both nominal and real terms, partly due to the slowdown in the construction sector (Figure 4). With the outbreak of COVID-19, the situation in rural India is likely to worsen significantly.

The lockdown and associated disruptions affected agricultural activities and the necessary supply chains through several channels: input distribution; harvesting; procurement; transport hurdles; marketing; and processing. Restrictions of movement and labor scarcity may impede farming and food processing. March to April is the peak season for the sale of the rabi (summer crop) produce but harvesting will be hampered due to the departure of thousands of migrant workers. Shortages of fertilizers, veterinary medicines, and other inputs could also affect agricultural production. Closures of restaurants and transport bottlenecks can diminish the demand for fresh produce, poultry, and fishery products, affecting producers and suppliers.

Farmers are stuck with harvests as Agricultural Product Market Committee (APMC) mandis (markets) are closed in several states, thereby disrupting food supply from production to consumption centers [10]. The government should focus on postharvest activities and wholesale and retail marketing and initiate procurement operations. Some state governments have already taken initiatives.

FIGURE 4

GROWTH IN RURAL WAGES.



Source: [9].

Since supply chains are not working properly, vast amounts of food are being wasted, leading to massive losses for Indian farmers. Media reports show that the closure of hotels, restaurants, sweet shops, and tea shops during the lockdown is already affecting milk sales. The exodus of migrant workers may also reduce the demand for milk in urban areas. These factors could affect producers adversely. Due to the lack of demand, dairy farmers are dumping milk into drains. Unable to export their produce, many farmers are also dumping seasonal products such as grapes.

Poultry farmers have been badly hit due to misinformation, particularly on social media, that chickens are carriers of COVID-19. Millions of small poultry farmers across the country, particularly in the states of Maharashtra, Karnataka, Orissa, and Andhra Pradesh, are struggling after sales crashed by 80% over these false claims.

There is evidence that despite being considered an essential service, agriculture and food supply chains were impacted in the initial days of the lockdown. In the second and third lockdowns, activity seemed to recover to some extent as markets adapted. Accordingly, the prices of cereals and vegetables, which had initially increased, have reversed.

It should be noted that in rural areas nonfarm incomes and employment have been rising. The National Bank for Agriculture and Rural Development (NABARD) survey [11] showed that only 23% of rural income is from agriculture (cultivation and livestock) if we consider all rural households. Around 44% of income is from wage labor, 24% from government/private service, and 8% from other enterprises. Income from the nonfarm sector is the major source in rural areas. The ongoing crisis may have adverse impacts on rural manufacturing and services. Farmers also get a substantial share of income from rural nonfarm activities. In the pre-COVID-19 period, rural incomes were partly affected because of lower real wage growth. Media reports revealed that rural wages are declining due to the arrival of migrant workers from cities.

On the health risk in rural areas, it is true that presently the problem is much more serious in urban areas because of high density. But the coronavirus could spread to 70% of India's population who live in rural areas. Some migrant workers have already gone back to rural areas. There is a risk of COVID-19 spreading to farmers, agricultural laborers, and others working throughout the food supply chains. The packaging material used for agricultural commodities can also carry the virus. Agricultural and rural populations must be protected as social distancing is practiced relatively less in rural areas.

Informal Sector

There are significant inequalities between informal- and formal-sector workers. Informal/unorganized workers do not have access to any social security benefits and also face uncertainty of work. Out of total workers, the shares of self-employed, casual, and regular workers were 51.3%, 23.3%, and 23.4%, respectively, in 2017–18. Most of the self-employed and casual employees were informal workers.

Informal workers were already facing problems with low wages and incomes in the pre-COVID-19 period. Daily wage laborers and other informal workers were the worst hit during the lockdown period and continue to be adversely affected even when the lockdown is relaxed. With almost no economic activity, particularly in urban areas, the lockdown has led to large-scale losses of jobs and incomes for these workers.

There are about 40 to 50 million seasonal migrant workers in India. They help in the construction of urban buildings and roads as well as factory production and participate in several service activities. In recent days, one could see the images of hundreds of thousands of migrant workers from several states walking on foot for several hundred kilometers to return to their villages. This exodus was triggered by the 21-day lockdown announced rather abruptly without giving people any time to prepare for it.

Most of those migrants are now out of work as businesses and establishments have shut down. In the absence of money, jobs, food, savings, or shelter in large cities, they are desperate to reach their villages. A few migrants died on their journeys due to exertion and lack of food. These workers feel that villages are safer for them as they can stay with their families.

There is an urgent need to address their problems. Screening facilities for migrant workers at the local levels should be provided. Those who could not reach their villages because state borders were sealed had to stay in the cities.

Food and shelter need to be arranged for them. There will also be food-, nutrition-, and security-related problems for vulnerable sections including women and children. Even after the lockdown is relaxed, it will take some time for the economy to pick up in the post-COVID-19 period and this will further aggravate future uncertainty for informal workers in general and migrant workers in particular.

MSMEs

MSMEs as a whole form a major chunk of manufacturing in India and play an important role in providing large-scale employment and in exports. Recent annual reports on MSMEs indicate that the sector contributes around 30% of India's GDP and, based on conservative estimates, employs around 50% of industrial workers. Over 97% of MSMEs can be classified as micro firms (with an investment in plant and machinery of less than INR25 lakh), and 94% are unregistered with the government. Many of the microenterprises are small, household-run businesses [12].

However, many aspects of government policy are at best scale neutral and do not explicitly favor MSMEs. This sector does not have access to adequate, timely, affordable institutional credit. More than 81% of MSMEs are self-financed, with only around 7% borrowing from formal institutions and government sources.

MSMEs are present in the manufacturing, trade, and service sectors. Table 8 shows growth rates of industry-wise deployment of bank credit by major sectors. The growth of credit was either low or negative for MSMEs. Demonetization and GST also contributed to the low performance of MSMEs. Recent problems with the NBFC sector have further hampered credit allocation to this sector.

Although all businesses have been affected by the pandemic, the MSME sector has been badly hit by reduced cash flows caused by the nationwide lockdown. Their supply chains are disrupted, and they are affected by the exodus of migrant workers; restrictions on the availability of raw materials; interruptions in exports and imports; widespread travel bans; closure of malls, hotels, theaters, and educational institutions; etc. These in turn massively hamper MSME businesses. As a consequence, hundreds of thousands of people who work for these small businesses may end up with job and salary losses.

TABLE 8

GROWTH IN INDUSTRY-WISE DEPLOYMENT OF BANK CREDIT BY MAJOR SECTORS (YEAR-ON-YEAR, %).

Item	March 2015	March 2016	March 2017	March 2018	March 2019	Nov 2019*
Nonfood credit	8.6	9.1	8.4	8.4	12.3	7.2
Industry	5.6	2.7	−1.9	0.7	6.9	2.4
Micro & small	9.1	−2.3	−0.5	0.9	0.7	−0.1
Medium	0.4	−7.8	−8.7	−1.1	2.6	−2.4
Large	5.3	4.2	−1.7	0.8	8.2	3.0
Textiles	−0.1	1.9	−4.6	6.9	−3.0	−6.1
Infrastructure	10.5	4.4	−6.1	−1.7	18.5	7.0

Source: Economic Survey 2019–20.
*As of 22 November 2019.

The experience of SMEs during the lockdown in PR China might be useful for India. In order to examine the impact of the pandemic on SMEs, the Enterprise Survey for Innovation and Entrepreneurship in China led by Peking University did a rapid follow-up survey of 2,349 previously sampled SMEs that are largely representatives at the provincial level [13].

According to that survey, SMEs are struggling to survive. Around 14% of the surveyed firms will be unable to last beyond a month on a cash flow basis, and 50% will not make it beyond three months. It paints a gloomy picture of SMEs under an extended epidemic scenario in PR China. The constraints vary along the supply chain. For example, upstream firms are mainly affected by labor shortages, while downstream firms face more serious challenges related to supply constraints and consumer demand. However, the impact seems to be different across sectors. Export firms suffered more than nonexport firms as they employ more migrant workers and their supplies are highly concentrated. Overall, the survey shows that COVID-19 has dealt a heavy blow to the SMEs of PR China. The same story is likely to be repeated in India.

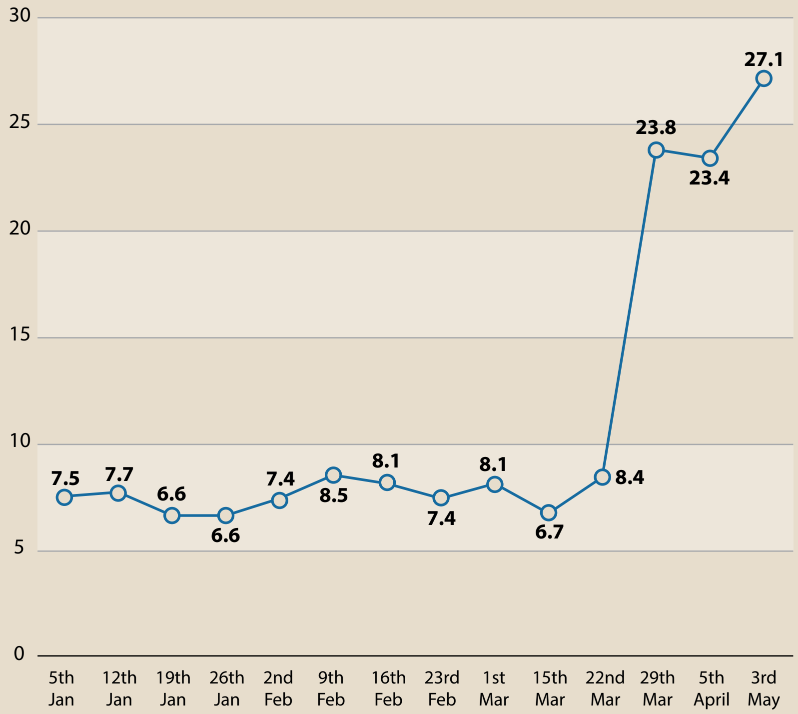
Employment Lost during Lockdown

Unemployment

Estimates by the Centre for Monitoring the Indian Economy (CMIE) show that unemployment was around 7–8% from 5 January to 22 March 2020. However, it shot up from 8.4% on 22 March to 23% in April and to 27% on 3 May 2020 (Figure 5). This was unprecedented in the history of India. As many activities are shut down, there has been a massive rise in unemployment.

FIGURE 5

INDIAN UNEMPLOYMENT RATE, 5 JANUARY TO 3 MAY 2020.



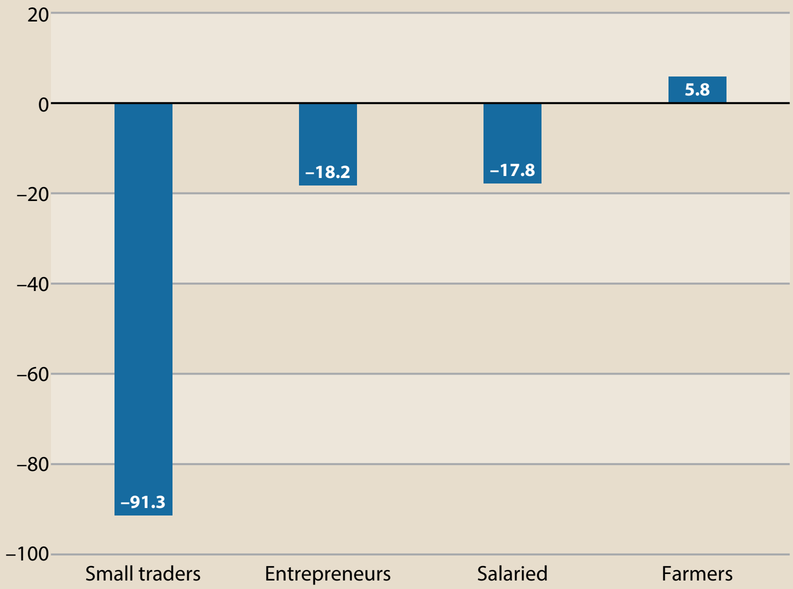
Source: CMIE.

Small Traders and Wage Laborers Lost the Most Jobs

In India, average employment during 2019–20 was 404 million. Compared with this number, the fall in April 2020 was a massive 30%, which translates to a loss of 122 million jobs [14]. The immediate question arises of who gained and who lost jobs in April. Small traders and wage laborers lost 91 million jobs (Figure 5); 71% of those laborers lost employment. Entrepreneurs represented by the large corporate sector and the salaried class each lost 18 million jobs. The only class that gained jobs (around 6 million) was farmers.

FIGURE 6

JOB LOSSES/GAINS BY WORKERS (MILLIONS) IN APRIL 2020 COMPARED WITH 2019–20.



Note: "Small traders" refers to small traders and wage laborers; "entrepreneurs" refers to large entrepreneurs.
Source: CMIE.

Base of the Pyramid and Widening Inequalities

As mentioned above, India has many working poor and already had high inequalities in the pre-COVID-19 period. The incomes of the base of the pyramid were very low. The coronavirus pandemic will affect the poor much more than the middle class and the rich and will lead to further widening of inequalities. For example, Figure 6 shows that 91 million of 128 million (around 71%) wage laborers and self-employed small traders lost jobs in April. They included hawkers and daily wage-earning laborers whose daily livelihoods depend on a functioning economy [14]. Their daily earnings are for food and other necessities and are therefore the most vulnerable to the economy shutting down. The long period of lockdown has affected their livelihoods, and many of them may fall into poverty.

The projections show that the population below the poverty line may increase, and many informal workers are likely to fall into poverty. The second report of the ILO released in April 2020 indicated that full or partial lockdown measures were affecting almost 2.7 billion workers, or around 81% [15]. It also estimated that 1.25 billion workers (around 38%) of the global workforce were employed in sectors facing severe declines in output and a high risk of workforce displacement. That report also revealed that 400 million informal workers in India were at risk of falling deeper into poverty during the crisis. A study by UNU-WIDER indicated that COVID-19 could push half a billion people into poverty in developing countries [16]. This is the first time since 1990 that global poverty could increase.

GOVERNMENT MEASURES TO ADDRESS THE IMPACT OF COVID-19

Monetary and Fiscal Policies

The central government and RBI announced fiscal and monetary policies, respectively. In addition, several state governments also announced fiscal stimulus measures.

Monetary Policy

The RBI has taken several measures to help the financial sector and real economy. Monetary policy initiatives undertaken so far include reductions in the repo rate to 4.4%, the reverse repo rate to 3.75%, and cash reserve ratio to 3%. The RBI has also opened several special financing facilities as outlined in Box 1. These are basically to improve liquidity in the financial sector.

Fiscal Policy

In order to help the poor and increase demand in the economy, we need fiscal relief and stimulus measures. The government has taken several fiscal measures to address the impact of COVID-19. On 26 March 2020, the Finance Minister announced an INR1.7 trillion package (Pradhan Mantri Garib Kalyan package) largely aimed at providing a safety net for those who have been worst affected by the pandemic lockdown.

On 12 May 2020, the Prime Minister announced a special economic and comprehensive package of INR20 trillion, equivalent to 10% of India's GDP. The Prime Minister called for Atmanirbhar Bharat (Self-reliant India) based on five pillars: economy; infrastructure; system; vibrant demography; and demand. This package caters to various sections including cottage industry, MSMEs, laborers, the middle class, industries, and farmers.

Government measures are examined below under the three categories of agriculture, relief measures for the poor and informal workers, and MSMEs.

BOX 1. MEASURES TAKEN BY THE RBI.

- On the request of the Government of India, the RBI raised the ways and means advance limits of states by 60% and enhanced the overdraft duration limits. Reduction of the cash reserve ratio (CRR) resulted in liquidity enhancement of INR1,370 billion.

- Targeted long-term repo operations (TLTROs) of INR1,000 billion allowed fresh deployment in investment-grade corporate bonds, commercial paper, and nonconvertible debentures.

- TLTROs of INR500 billion offered for investment-grade bonds, commercial paper, and nonconvertible debentures of NBFCs and MFIs.

- Increased bank limits for borrowing overnight under the marginal standing facility (MSF), allowing the banking system to avail of an additional INR1,370 billion of liquidity at the reduced MSF rate.

Announced special refinance facilities to NABARD, SIDBI, and the NHB for a total amount of INR500 billion at the policy repo rate.

- Announced the opening of a special liquidity facility of INR500 billion for mutual funds to alleviate intensified liquidity pressures.

- Placed a moratorium of three months on payments of installments and interest on working capital facilities for all term loans.

- Eased working capital financing by reducing margins.

- For loans by NBFCs to the commercial real estate sector, additional time of one year was given for extension of the date for commencement for commercial operations.

Agriculture

The Union Home Ministry issued guidelines on the lockdown which exempted farm work and farming operations, agencies engaged in the procurement of agricultural products at minimum support prices, mandis notified by state governments, inter- and intrastate movement of harvesting- and sowing-related machines and manufacturing, and packaging units of fertilizers, pesticides, and seeds, among others. There are, however, several problems of implementation.

Many of the circulars have not reached the local authorities and police personnel. As a result, smooth movement of essential food and agricultural items has been affected. There is a need for clear implementation of the guidelines. Harassment of farmers, vendors, and farm harvest transporters should be avoided by involving grassroots bodies such as the panchayats.

On 15 May 2020, the finance minister announced the following package for agriculture and allied activities:

- An agriculture infrastructure fund of INR1 lakh crore for building storage and postharvest management
- Support of INR10,000 crores for micro food enterprises
- Relief package of INR20,000 crores for fisheries
- National animal disease control program
- INR15,500 crores for an animal husbandry infrastructure development fund
- Outlay of INR4,000 crores for herbal cultivation
- INR500 crores for beekeeping initiatives
- INR500 crores for extension of Operation Greens to all fruit and vegetables
- Governance and administrative reforms including amendment of the Essential Commodities Act, agricultural marketing reforms, and a legal framework focused on risk mitigation and quality assurance for farmers.

These measures will improve infrastructure and provide more freedom for farmers to sell in domestic and export markets. Agricultural reforms, particularly in marketing, have been pending for three decades.

Policy Package for Poor and Informal-sector Workers

Poor self-employed and casual workers including migrant ones are the most affected due to the pandemic. The Pradhan Mantri Garib Kalyan package was announced in March to help unorganized-sector workers, especially daily wage workers, and the urban and rural poor. The Pradhan Mantri Garib Kalyan package contains the following elements:

- Insurance coverage of INR50 lakhs per health worker
- 800 crore poor people given 5 kg of wheat or rice per person for the next three months
- 1 kg of pulses for each household free of charge every month for the next three months
- 20 crore women Jan Dhan account holders receive INR500 per month for the next three months
- Gas cylinders, free of cost, provided to 8 crore poor families for the next three months
- Increase in MNREGA wage to INR202 a day from INR182 to benefit 13.62 crore families
- Ex-gratia payment of INR1,000 to 3 crore poor senior citizens, widows, and Divyang (people with disabilities)
- Front-loaded INR2,000 paid to 8.7 crore farmers under existing PM-KISAN
- Building and Construction Workers Welfare Fund allowed to be used to provide relief to workers
- 24% of monthly wages to be credited to their pension fund accounts for the next three months for wage-earners making less than INR15,000 per month in businesses having fewer than 100 workers
- 5 crore workers registered under the Employee Provident Fund (EPF) to receive nonrefundable advances of 75% of the amount or three months of wages, whichever is lower, from their accounts

- Limit on collateral-free lending increased from INR10 lakh to INR20 lakh for women's self-help groups supporting 6.85 crore households

- District Mineral Fund to be used for supplementing and augmenting facilities for medical testing, screening, etc.

As part of the INR20 trillion fiscal package, the finance minister announced the following second tranche of measures for poor and migrant laborers on 14 May:

- INR3,500 crores for free food grain distribution to migrants for two months

- 100% national portability of the public distribution system by March 2021, enabling migrants to access rations from any fair price shop in India (One Nation, One Ration Card)

- INR1,500 crores for interest subvention of 2% for MUDRA-Shishu loans for 12 months

- INR5,000 crores of special credit facility for street vendors

- Affordable rental housing complexes for migrant workers/urban poor

- Funds worth INR6,000 crores under the Compensatory Afforestation & Planning Authority (CAMPA) to be used by state governments for providing employment opportunities for tribal people

- INR30,000 crores as additional emergency working capital funding for farmers through NABARD

- Additional concessional credit of nearly INR2 trillion to 25 million farmers through Kisan credit cards

- Extension of the credit-linked housing subsidy scheme for the middle-income group, providing an investment boost of INR700 crores to the housing sector.

The total stimulus under these measures would be INR3,160 billion or around 1.6% of GDP. However, out of this amount, the fiscal cost is expected to be INR100 billion or around 0.05% of GDP.

MSMEs

The first tranche announced by the finance minister on 13 March 2020 related to the MSME sector, with the following components:

- INR3 lakh crore collateral-free automatic loans for business, including MSMEs
- INR20,000 crore subordinate debt for MSMEs
- INR50,000 crore equity infusion through the MSME Fund of Funds
- New definition of MSMEs
- Global tender to be disallowed up to INR200 crores
- Other interventions for MSMEs
- INR2,500 crore EPF support for businesses and workers for three more months
- EPF contribution reduced for businesses and workers for three months (INR6,750 crores)
- INR30,000 crore liquidity facility for NBFCs/HCs/MFIs
- INR45,000 crore Partial Credit Guarantee Scheme 2.0 for NBFCs
- INR90,000 crore liquidity injection for DISCOMs
- Relief to contractors
- Extension of Registration and Completion Date of Real Estate Projects under RERA
- INR50,000 crore liquidity through TDS/TCS reductions
- 15 other direct tax measures, including: all pending refunds to charitable trusts and noncorporate businesses and professions including

proprietorships, partnerships, LLPs, and cooperatives to be issued immediately; and due date of all income tax returns for FY2019–20 to be extended from 31 July 2020 and 31 October 2020 to 30 November 2020 and tax audits from 30 September 2020 to 31 October 2020

- Additional direct tax measures, including: date of assessments becoming barred on 30 September 2020 extended to 31 December 2020 and those becoming barred on 31 March 2021 extended to 30 September 2021; and period of the Vivad se Vishwas scheme for making payments without additional amounts extended to 31 December 2020.

POLICIES FOR HELPING THE BOTTOM OF THE PYRAMID AND REDUCTION IN INEQUALITIES: RECOMMENDATIONS

Is the Stimulus Package Adequate?

The above measures are in the right direction in the sense that they can reduce the pain of informal workers and other poor people, MSMEs, and farmers in the immediate short-term period and help them in the medium and long terms. Several commentators highlighted that countries in Europe and the USA are spending significantly more to mitigate the impact due to the pandemic (Table 9). The USA announced a package of USD2 trillion or 10.7% of GDP. Similarly, the financial package as a percentage of GDP is much higher in countries like France, Spain, Germany, Australia, and Malaysia (Table 9). India's USD266 billion package is also around 10% of GDP.

TABLE 9

COVID-19 STIMULUS COMMITMENT SIZE (AS % OF GDP).

Country	% of GDP	Country	% of GDP	Country	% of GDP
India	**10.0***	France	11.38*	Australia*	8.02
USA	10.71*	UK	15.27*	Russia	0.30
Italy	1.30	Republic of Korea	5.13	Malaysia	16.17
China	1.32*	Brazil	2.10	Japan**	10.00
Spain	15.29*	Canada	2.16		
Germany	20.95*	Israel	5.94		

Note: Government support includes loans and credit guarantees for companies, direct transfers (in some cases via employers) to workers, tax freezes, and debt repayment moratoriums. Not all countries have provided all of these.
*Includes loan packages/bailout funds and liquidity support, apart from fiscal response.
**Not yet announced, based on government intention.
Source: Economic Times, 4 April 2020.

However, analysts note that out of the 10% of GDP package, fiscal stimulus is only 2–3% of GDP. Given the unprecedented magnitude of the crisis, there is a need for a significant increase in the financial help to the poor. The fiscal relief or stimulus is not adequate as compared to the problem.

After the announcement of the first stimulus package, Nobel Prize-winning economists Abhijit Banerji and Esther Duflo commented that the government should have been bolder with the social transfer schemes. According to them, "What the government is offering now is small potatoes—at most a couple of thousands for a population that is used to spending that much every few days. If the point is to stop them from going out to find work and thereby spreading the disease, the amounts probably need to be much larger [17]."

Policies for Agriculture

Agriculture and rural areas are somewhat better as the majority of pandemic infections have been limited to urban areas. However, agriculture is affected due to the shortage of labor and transport and disruptions in supply chains. The government announced measures to improve infrastructure and reforms in marketing. The following measures are required for agriculture.

- Safety of farm populations: Farmers, agricultural laborers, and workers in supply chains have to be protected from the health shock. Some of the measures like testing of migrants and social distancing in harvest operations, procurement, marketing, packaging, etc. will help curb the spread of the pandemic.

- Supply chains: During the lockdown and beyond, one has to concentrate on smooth operation of postharvest activities, marketing of production, and retail, wholesale, storage, and transport activities. Negotiable warehouse receipts for godowns and storage have to be intensified.

- Procurement measures: It is important to have continued markets for farmers. Farmers with perishable products need help as they face more problems. The government should have smooth procurement operations for wheat and other crops. Some states have already announced their plans for procurement.

- Dairy and poultry industry: Small farmers in poultry and dairy activities need more help as they are facing problems due to the pandemic.

- Food security for farm families and agricultural workers: Although farmers are involved in the production of crops, they also face food-related problems. Farmers and agricultural workers have to be included in the in-kind assistance package or any social protection programs announced by the government. At present, PM-Kisan includes only landowners. Tenant farmers who are the actual cultivators should be included in the scheme.

- Avoid export bans: At the macro level, trade in food and agriculture has to be maintained to ensure the availability of food. Access to food has to be tackled in a different way than export bans. For example, some farmers are suffering because of export restrictions. After the lockdown period, exports of farm products must be continued.

Poor and Informal Sector

It is very important now to protect workers in the informal sector, who have been badly affected and yet have little savings to tide them over the shock. Over and above the fiscal package that the central government has already announced, more one-time relief measures for informal-sector workers may be considered.

- Food and nutritional security: The government has nearly 56 million tons of excess stock of grains and cereals compared with the usual norms. It has already announced free rations to ration cardholders and those who do not hold those cards. This is an important measure. State governments have also announced free basic and enhanced rations. The nutrition levels of informal workers and the unemployed poor were low even before the crisis. They will decline further due to the lack of jobs and incomes during the lockdown and beyond. Therefore, pulses, oils, jaggery, etc. should be provided in ration shops to ensure a diversified diet for them. Anganwadis and schools can provide rations at home. Eggs can be added to improve nutrition for women and children. The government should ensure that the prices of essential food items are under control. Otherwise high prices will have adverse impacts on the food and nutrition security of the poor.

- Cash transfers: Given the widespread loss of jobs and incomes and no certainty about when the situation may normalize, informal-sector workers need cash income support. The government has provided INR500 per month to women through their Jan Dhan Yojana accounts. There is some consensus that this may not be sufficient. The suggestions on this vary from INR3,000 per month to 6,000 per month [18]. Experts argue that a higher amount of cash transfer is needed as a one-time measure. It is better to use the NEFT system rather than using the Aadhar Payment Bridge system as the latter has some rejections and failed payments [19]. It should be noted that some informal workers and other vulnerable groups do not have Jan Dhan accounts. These groups also need cash assistance. The optimal design of the cash transfer program needs to be determined in terms of targeted recipients, amounts, and duration.

- To a certain extent, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme works as an automatic stabilizer because if people need jobs they can just apply. The key therefore will be to ensure that the funding is available, and in the hands of the states and panchayats, so that when the appropriate time comes and large numbers of workers sign up for MGNREGA, the mechanism works as designed. The number of days under the program may also be increased. A related issue is payments to MGNREGA workers. All the arrears for these workers should be released. It is worth noting in this context that in recent years, the MGNREGA scheme does not seem to have offered much support to rural incomes due to delayed wage payments, lower wages, and insufficient budgetary allocations. The Periodic Labor Force Survey report released by the National Statistics Office in May 2019 showed that wages under MGNREGA were lower than the market wage rate for nonpublic work by 74% for rural men and 21% for rural women [20].

- Migrant workers: Migrant workers are the worst affected by the lockdown and will continue to be so even after the lockdown is lifted. They have faced extreme hardships. There have been several suggestions to help migrant workers. One is that the government must use "the network of anganwadis, panchayat bhavans, government schools, government colleges, railway stations, bus stations, community halls, block offices, district headquarters, etc. to set up feeding centers to arrange free cooked food, medical care, and sanitation for these people [21]." After the lockdown, an orderly return of migrant workers to their workplaces must be arranged. Steps must be taken so that the benefits of social safety nets like the Public Distribution System (PDS), Ujjwala scheme, etc. become available to them even in urban and semi-urban areas [22]. The government has already implemented the One Nation, One Ration Card scheme for migrant workers.

- State-level programs: Several state governments have initiated innovative programs to help informal workers and the unemployed poor. Kerala, for example, has announced an INR20,000 crore package. The components of this package are: two months of welfare pensions to be given as an advance; all needy families receive free food grains from the PDS; a subsidized meal program (INR20) to be delivered to homes; loans worth INR2,000 crores will be given through the Kudumbashree program; an INR500 crore health package; and an employment guarantee program of INR3,000 crores in the first two months. The food assistance programs are noteworthy as they focus on a diversified diet to improve nutrition. It is worth studying the Kerala package and its viability more closely and assessing potential replicability in other states.

MSMEs

Since most MSMEs primarily operate on a cash basis, they require immediate liquidity to cope with adverse events. The three-month deferral of loan repayments as announced by the RBI will help MSMEs in the immediate short term. This should be offered to MFIs as well. The deadline for GST return filing for March, April, and May has now been extended to 30 June which will also provide some temporary relief. Most businesses in the MSME sector are looking for financial support from the government. This can help them cope with cash flow problems. The government announced several measures like credit guarantees and improved liquidity for MSMEs. For example, the measures include INR3 trillion in collateral-free loans to MSMEs. However, the government must pay dues of INR5 trillion to MSMEs which should be paid immediately so that they can start work after lockdown. Another issue is that MSMEs may not take loans if there is a demand problem in the economy. The government should put money in the hands of several sections of society to raise purchasing power.

Other Policies for the Poor and Reducing Inequality

Macro Policies, Employment, and Inequality

Appropriate macro policies such as trade, fiscal, and monetary policies should promote employment by providing appropriate policies and institutions. Redistribution in favor of the poor can be done through fiscal policies. Taxes, expenditures, and subsidies are the major instruments of fiscal policy. Some advocate measures such as redistribution of assets and wealth in favor of the poor via higher tax rates for the rich. In order to reduce inequalities, richer sections should pay much higher taxes. The tax/GDP ratio has to be raised with a wider tax base and removal of exemptions for corporations. One of the distortions in India is that the share of direct taxes is much lower than that of indirect taxes. Indirect taxation is regressive in nature. Fiscal instruments like public investment in physical and social infrastructure can be used to reduce inequality.

In terms of wage subsidies versus capital subsidies, are the policies encouraging capital subsidies in the Indian economy? Capital subsidies are high, and therefore wage subsidies for increasing employment are advocated instead [23]. Wage subsidies can be given as incentives to the corporate sector and others to increase employment rather than capital. Pro-poor macro policies in general should enhance strong aggregate demand, raise productive investment, and improve access to finance in order to raise employment and reduce labor market inequalities.

Sectoral Policies and Inequalities in Employment

Productive job creation is the biggest challenge. The quality of employment improves with changes in structure from low-productive to high-productive occupations and sectors. Quality increases with the shift from casual workers in the informal sector to regular formal-sector workers.

Rural Nonfarm Sector

At the all-India level, the share of the nonfarm sector in rural areas increased from around 19% in 1983 to 44% in 2011–12. However, inequalities also increased in the rural sector. Village studies have shown a rise in rural nonfarm-sector activities [24]. It is true that the nonfarm pattern varied among village studies. However, some generalizations can be made [25]. First, the share of nonfarm employment and income in villages has increased. Second, most rural nonfarm employment created was in self-employment and casual labor. Most of the jobs are in small trade, services, and construction with poor working conditions and low productivity. Third, disadvantaged sections have benefited from the growth in the nonfarm sector. Finally, most village studies also showed a declining role of agriculture in both income and employment. The growth of nonfarm opportunities in nearby towns and cities has been one of the drivers of nonfarm activities. Increasing communication and connectivity also led to greater access to nonfarm employment outside villages. There is a need for more productive jobs in the rural nonfarm sector to reduce inequalities.

Manufacturing and Services

Productive employment rises if workers in agriculture are shifted to manufacturing and services. In this context, the Make in India campaign is in the right direction. The aim is to create 100 million jobs by 2022. Labor-intensive manufacturing is important for quality job creation, particularly increases in the organized sector [4]. However, manufacturing and services are complements and both should be promoted.

The Niti Aayog (Policy Commission) [26] in its three-year action plan also indicates that India has the advantage of walking on two legs: manufacturing and services. It offers specific proposals for jumpstarting some of the key manufacturing and service sectors, including apparel, electronics, gems and jewelry, financial services, tourism and cultural industries, and real estate. Among others, it recommends the creation of a handful of Coastal Employment Zones, which may attract multinational firms in labor-intensive sectors from PR China to India.

Skill Development

It is known that with demographic dividends, there will be large numbers joining the labor force. India will be the world's youngest country by 2020 with an average age of 29 years. This demographic dividend comes at a time when the rest of the world is aging. Some estimates show that only 2.3% of India's workforce has undergone formal skill training compared to the UK's 68%, Germany's 75%, the USA's 52%, Japan's 80%, and the Republic of Korea's 96% [26]. In order to undergo the structural change from agriculture to other sectors and from unorganized to organized, education and skill improvement are needed. Government initiatives on skill development have so far yielded slow progress. More innovative methods may be required to improve skills faster. General education is equally important [4].

Labor Institutions

Issues such as labor policies, minimum wage, worker rights/safety, access to rule of law/justice, migrant worker policies, human rights, urban/informal-sector workers, and other aspects that characterize the wage-worker's benefits, working conditions, rights, and collective bargaining must be addressed. These are important for the overall well-being and development of workers. Labor institutions and legislation like minimum wages, working hours, and collective bargaining would influence the workplace by shaping the behavior of firms and conditions of work and employment.

While most labor laws apply only to the formal sector, they also cover specific groups within the informal sector. The most important of these is the Minimum Wages Act, providing the widest eligibility coverage. A minimum wage establishes a floor to protect workers, particularly those at the bottom of the pyramid. The National Commission for Enterprises in the Unorganised Sector (NCEUS) [27] recommended a statutory minimum wage as a floor below which no worker should be paid. Many state governments have minimum wage acts with periodic revisions. Effectiveness in implementation is far from satisfactory. As shown below, the NCEUS [27] followed a similar approach by recommending wider policies for the unorganized sector. Such a package would lead to the creation of a "social floor" for informal workers, who constitute nearly 85% of all Indian workers.

Technology, Employment, and Inequality

India has to be ready to approach the Fourth Industrial Revolution, which involves advanced manufacturing, quantum engineering, 3D printing, and robotics. It may lead to some disruptions in established sectors and inequalities. This has taken a much more serious dimension with the likelihood of automation, digitization, and other new technologies based on artificial intelligence (AI) taking away the routine jobs outsourced to labor-abundant economies like India. World robotics have grown at the rate of 15% per annum since 2008. Five markets (PR China, Republic of Korea, Japan, the USA, and Germany) have 74% of the supply. PR China has 87,000 robotic systems in operation. According to the assessment of the World Bank president, 69% of jobs in India and 77% in PR China are under threat due to automation.

Although presently robotics and other technological issues are more prevalent in developed countries, India should be ready to face the impact of robotics and AI on employment. Optimists say that net employment may rise with the Fourth Industrial Revolution including robotics. For example, Satya Nadella believes that AI can be made more inclusive and inequalities can be reduced.

Safety Nets as a Bridge between Health Crises and Economic Crises

Safety nets can be divided into promotional and protective measures. Promotional measures take care of capability deprivation. On the other hand, protective measures deal with contingencies. Promotional measures include self-employment and wage employment programs, food and nutrition security programs, general health, and education. Contingency programs provide minimum levels of social security like life insurance and health insurance for younger workers.

One of the important social protection programs in India is the MGNREGA scheme. India has long experience in experimenting with labor-intensive public works. Macro studies and micro surveys provide a mixed picture of the benefits of MGNREGA in different parts of the country. It has had a positive impact on livelihood, food security, and nutrition. Agriculture wages have increased and assets were created in some areas. It has positively affected the empowerment of women and marginalized sections, reduced migration, acted as an insurance function, increased financial inclusion, and in some areas improved panchayat involvement and grassroots-level democracy. But, in a vast country like India, the benefits are uneven. Performance has been good in some states and not as good in some others.

It is by now recognized that we should have a social protection floor. This is needed from the points of view of economic need, social need, and human rights. For example, suggestions are made for the following as a minimum social security or social protection floor, particularly for informal workers in India:

- Extend the noncontributory old-age pension schemes at a reasonable level to the entire elderly population, including the physically disadvantaged and widows.

- Provide access to health services to the poor, either through public provision or through a social health insurance scheme.

- Expand, within a specified period of time, the Unorganized Sector Workers Social Security Act, 2008, to ensure that it guarantees statutory and universal provision of national minimum social security [28].

Should we move toward a universal basic income (UBI)? Some argue for conditional and unconditional cash transfers and advocate moving toward direct benefit transfers in place of present social protection programs. There has been a lot of discussion on a UBI in India. Rangarajan and Dev [29] believe that introducing a UBI is unrealistic and that the concept of a basic income must be turned essentially into a supplemental income.

The experience of COVID-19 shows that safety nets are important for the bottom of the pyramid. The migrant worker episode also showed that food and cash transfers are important.

Education: Equality of Opportunity for Better Jobs

Reduction in inequality of opportunity is important for promoting equity. According to an ADB/Routledge publication [30]: "The distinction between inequality of opportunity and inequality of outcome can be particularly useful in guiding public policy. Equality of opportunity is not only intrinsically important but also a critical condition for a prosperous society. Public policy must be put in place to reduce or eliminate inequality of opportunity. Governments must work hard to promote equality of opportunity and to ensure that everybody has equal opportunity to participate in the growth process and benefit from its fruits."

Equity in quality education is the key for raising human development and reducing inequalities in the labor market. A study on India showed that increases in returns on education accounted for a large part of the increase in urban inequality during 1993–94 to 2004–05 [31]. Increases on returns to education have been particularly high in education-intensive services (such as communications, finance, insurance, real estate, and other business services) and education-intensive occupations (professional/technical, managerial/administrative, and clerical). A lack of focus on the quality of education and healthcare will further exclude disadvantaged sections like scheduled castes, scheduled tribes, minorities, and women.

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LIST OF TABLES

LIST OF FIGURES


1.015