

## **Employment loss during COVID-19 in Kerala: Impact and recovery<sup>1</sup>**

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### **1. Introduction**

This study builds upon the work of Kakarlapudi and Shagishna (2023), who examined the impact of COVID-19 on unemployment in Kerala. Their research revealed a significant increase in unemployment during the first wave of COVID-19, from April to June 2020, although the rate was lower in Kerala than at the national level. Despite being the first Indian state to report a COVID-19 case, Kerala successfully controlled the virus's spread during the first wave, earning international recognition. However, during the second wave, Kerala experienced the highest unemployment rate, a three-fold increase compared to the national average and other states (Kakarlapudi and Shagishna, 2023). The authors also highlighted that the impact of unemployment and its recovery varied across demographics, with rural and urban areas affected differently and females losing more jobs than males.

In this study, we aim to expand upon their findings by exploring the impact of COVID-19 on employment loss among various socio-economic groups. We will analyse the loss of employment based on demographic characteristics, social categories, the industry of occupation, and the type of employment contracts. The remainder of the paper is organised as follows. Section 2 discusses data and approach. Section 3 presents the trends and patterns of employment loss across different socio-economic axis in the first two waves of COVID-19 in Kerala and its recovery. The last section concludes with a discussion of the findings.

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## **2. Data and approach**

The analysis uses nationally representative data from the CPHS, which is collected in waves. Each wave represents a four-month period (e.g., January to April), and sample households are visited three times per year. The CPHS data includes four responses for employment status: 1) Employed, 2) Unemployed: not willing and not looking for work, 3) Unemployed: willing but not looking for work, and 4) Unemployed: willing and looking for work. Category two is considered out of the labor force, while categories three and four are used as unemployment indicators.

To understand the impact of the crisis on employment and the nature of the recovery, the analysis uses data from January 2019 to August 2021, representing eight waves (waves 16 to 23), to estimate employment growth during COVID-19. The reference period is September-December 2019, against which employment trends are analysed to analyse the impact and recovery. The analysis focuses primarily on Kerala, but for comparison purposes, 16 states are grouped into high-income and low-income categories based on their per capita income. States with a per capita income higher than the national average (Andhra Pradesh (AP), Gujarat (GJ), Haryana (HR), Karnataka (KA), Maharashtra (MH), Punjab (PB), Tamil Nadu (TN), and Telangana (TS)) is classified as high-income states, while those with a per capita income lower than the national average (Assam (AS), Bihar (BH), Chhattisgarh (CH), Jharkhand (JH), Madhya Pradesh (MP), Odisha (OD), Rajasthan (RJ), Uttar Pradesh (UP), and West Bengal (WB)) are considered low-income states.

## **3. Socio-economic dimensions of employment loss during COVID-19**

In light of the COVID-19 pandemic, the loss of employment and livelihood opportunities has emerged as a major concern among multilateral organizations, policymakers, and academia, prompting a proliferation of studies aimed at quantifying the magnitude of this phenomenon across various dimensions (Abraham et al, 2021; Azim Premji University, 2021; ILO, 2020; 2021, 2022; Kakarlapudi, 2022; Kannan and Khan, 2022; Mohanan and Kar, 2022; OECD, 2020; RBI, 2022, Vyas, 2020; Walter, 2020). The evidence clearly suggests that the pandemic disproportionately impacted women, people working in the informal sector and people belonging to marginalised communities. In response to these challenges, policymakers and organisations have implemented various measures to support individuals and businesses, including wage subsidies, unemployment benefits, and small business loans. However, the

long-term impacts of the pandemic on employment and livelihoods are still uncertain and will likely continue to be a major concern for the foreseeable future. This section analyses the trends associated with employment loss in Kerala across diverse socio-economic characteristics.

### **3.1 Employment impact: A demographic profile**

Youth employment has long been a significant challenge in developing countries, and the COVID-19 crisis has only exacerbated this issue. According to the International Labour Organization (ILO), in 2020, the Asia Pacific region witnessed a significant loss of jobs among young people compared to other age groups. Nearly half of the young workforce in the region is employed in the four sectors hardest hit by the pandemic. India is no exception to this trend, as indicated by a study conducted by APU in 2021, which reveals that youth have been severely impacted, with 33% of workers aged between 15-24 years failing to recover employment by December 2020. This study follows the guidelines outlined in the national youth policy document, which defines youth as people aged between 15-29 years, with everyone else classified as non-youth (Table -1).

During the first wave of COVID-19 in Kerala, youth employment declined by 24% from Jan-April 2020, three times more than the national level. However, youth employment recovered in subsequent months, while high-income and low-income states showed declines of around 14% and 20%, respectively, in May-Aug 2020. In the second wave (May-Aug 2021), Kerala's youth employment remained stable, with levels higher than pre-pandemic. Meanwhile, national employment recovery reached 85%, with high-income states recovering 88% and low-income states recovering 82.7%. Low-income states suffered more due to the nature of the labour market (Table 1).

Non-youth employment loss in Kerala was significantly higher (23%) than the national levels of 6% for Jan-April 2020. However, non-youth employment improved after that, with 100% recovery in both low-income and high-income states by Sep-Dec 2020, although Kerala's recovery was lower at 95%. In the second wave (May-Aug 2021), non-youth employment in Kerala declined to 87%, while there was no significant decline at the national level. In contrast to national trends, youth in Kerala lost more employment in the first wave, but non-youth lost more jobs in the second wave. While non-youth showed a 100% recovery, youth employment recovery remains poor (Table 1).

**Table 1: Employment impact across youth and non-youth in (%)**

	<b>Kerala</b>	<b>Low-Income States</b>	<b>High-Income States</b>	<b>All India</b>
<b>Panel A: Youth</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	76.06	92.28	92.93	92.26
May-Aug 2020	91.51	79.35	86.74	82.35
Sep-Dec 2020	100.1	87.48	88.45	87.94
Jan-April 2021	109.66	89.77	88.61	89.57
May-Aug 2021	109.49	82.75	88.19	85.16
<b>Panel B: Non-youth</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	77.82	96.68	93.03	94.59
May-Aug 2020	97.55	96.41	91.23	94.21
Sep-Dec 2020	95.11	103.54	97.22	100.47
Jan-April 2021	95.6	104.58	99.2	101.9
May-Aug 2021	87.81	105.77	98.93	102.21

*Source: Author's calculations based on CMIE-CPHS*

During the first wave of the pandemic, youth in Kerala lost jobs at three times the national average. In the second wave, the youth continued to experience higher levels of job loss than non-youth at the national level, but in Kerala, youth gained employment while non-youth lost jobs.

### **3.2 Employment impact: A social profile**

In India, caste hierarchy often translates into the occupational hierarchy, with low-paying informal sector jobs largely taken up by underprivileged castes. Given that the informal sector has been hit hardest during the COVID-19 crisis (Azim Premji University, 2021; Kannan and Khan, 2022; Mohanan and Kar, 2022), the employment impact will likely differ across different social categories. While vulnerable sections like SC/ST communities have been hit hard across India, Kerala shows a different trend. In Kerala, SC-STs were hit hard in the first wave. In Jan-April 2020, employment index values declined to 98.41% for the general category, 95% for OBCs, and 88% for SC-STs at the national level. Kerala saw a similar trend during this period, but the effect on OBCs (78.4%) and SC-STs (75.5%) was much higher in Kerala than the national and state averages (Table 2). However, the recovery of SC-STs is faster than others in Kerala, while at the national average non-SC-STs recovered faster. In the second wave, the SC-STs in Kerala suffered an employment loss of 14 per cent compared to 6 per cent in the general category and 2 per cent among the OBCs (Table 2).

**Table 2:** Employment impact across the social category in (%)

Wave	Kerala	Low-Income States	High-Income States	All India
<b>Panel A: General Category</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	96.69	98.39	98.39	98.41
May-Aug 2020	82.65	98.94	88.52	94.16
Sep-Dec 2020	95.45	98.63	96.76	97.53
Jan-April 2021	101.49	99.18	97.41	98.56
May-Aug 2021	95.73	100.66	97.2	99.21
<b>Panel B: OBC</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	78.42	97.62	91.63	95.32
May-Aug 2020	79.69	90.75	90.35	92.14
Sep-Dec 2020	94.54	97.69	96.51	97.33
Jan-April 2021	92.89	100.57	97.38	99.11
May-Aug 2021	89.18	100.96	94.56	98.56
<b>Panel C: SC-ST</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	75.56	90.42	84.3	88.93
May-Aug 2020	149.65	87.22	88.52	88.09
Sep-Dec 2020	99.33	101.79	90.89	97.75
Jan-April 2021	110.38	101.91	94.75	98.97
May-Aug 2021	96.39	96.99	94.55	96.53
<i>Source: Author's calculations based on CMIE-CPHS</i>				

SC-STs experienced the highest employment loss during the crisis, followed by OBCs and the General Category in Kerala and other states. In Kerala, SC-STs experienced a better employment recovery than other groups, while in other states, their recovery lags behind OBCs and the General Category.

### 3.3 Employment loss across industry category

The quarterly GDP estimates published by the National Statistical Office (NSO) provide evidence of the differential impact of the COVID-19 pandemic on various sectors of the economy. Agriculture appears to be the most resilient among these sectors during this crisis. Despite experiencing a relatively large impact of 86.8% in Jan-April 2020 compared to the pre-COVID-19 base period, Kerala's agricultural sector has significantly recovered in subsequent waves. By May-August 2021, Kerala's agricultural employment recovery reached 153.8%, while that of all India was 107.6% (Table 3, Panel A). This substantial increase in agricultural employment in Kerala suggests that people may have shifted to agricultural and allied jobs due to the loss of jobs in the non-agricultural sector, such as manufacturing and

services. Additionally, the influx of return migration that Kerala experienced may have also found agriculture to be a temporary source of livelihood in the absence of employment opportunities in the non-agricultural sector.

The impact of the COVID-19 pandemic on employment has been severe in the industrial sector, affecting people across high-income and low-income states. In Kerala, the decline in industrial employment has been more pronounced than the national average, with a decline to 73.9% in Jan-April 2020 compared to the base period. This is in contrast to low-income states (88.7%), high-income states (90.85%), and the national average (89.8%). Industrial employment in Kerala did not show signs of recovery in subsequent waves. Still, in the second wave, the fall in industrial employment in Kerala is higher than in the high-income states. In terms of recovery, high-income states have shown better recovery than low-income states (Table 3, Panel B).

Agriculture and allied activities showed resilience during the pandemic, with Kerala increasing employment in this sector. Industrial employment in Kerala was severely affected, with no signs of recovery, unlike other states (Table - 3).

**Table 3:** Employment impact across industry category (in %)

Wave	Kerala	Low-Income States	High-Income States	All India
<b>Panel A: Agriculture and allied</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	86.88	100.6	92.18	97.12
May-Aug 2020	186.11	109.85	99	105.3
Sep-Dec 2020	178.67	110.61	93.07	102.73
Jan-April 2021	152.98	107.98	96.58	103.37
May-Aug 2021	153.85	112.82	99.23	107.62
<b>Panel B: Industry</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	73.93	88.71	90.85	89.86
May-Aug 2020	32.05	80.14	56.75	68.27
Sep-Dec 2020	36.56	75.9	65.8	72.18
Jan-April 2021	25.87	73.83	75.35	77.06
May-Aug 2021	29.57	67.88	72.39	73.05

Wave	Kerala	Low-Income States	High-Income States	All India
<b>Panel C: Construction</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	53.94	92.79	76.74	88.19
May-Aug 2020	107.28	67.65	103.88	77.31
Sep-Dec 2020	89.9	98.88	124.3	105.7
Jan-April 2021	99.82	109.76	126.91	113.72
May-Aug 2021	94.39	98.67	118.97	103.64
<b>Panel D: Services</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	90.94	93.21	93.41	94.42
May-Aug 2020	91.06	88.94	87.08	89.12
Sep-Dec 2020	100.37	92.74	100.12	95.7
Jan-April 2021	102.25	93.85	97.03	94.4
May-Aug 2021	93.05	93.41	93.68	93.02
<i>Source: Author's calculations based on CMIE-CPHS</i>				

Kerala's construction sector is critical for generating employment, with a GDP share nearly double the national average. In the first wave of the pandemic, construction employment fell by 54% compared to the base period, with a less severe decline observed in low-income states (92.7%) than high-income states (76.7%). In the second wave, Kerala's construction employment fell to 94.3%, while high-income states showed an increase compared to the base period (Table 3, Panel C). Recovery in the service sector is slower than construction, with Kerala experiencing a significant fall in employment during the second wave. However, by January-April 2021, the service sector in Kerala had recovered fully, with employment at 102.2% compared to the base period, surpassing the all-India average of 94% (Table 3, Panel D).

Construction employment in Kerala declined significantly in the first wave and is still lagging behind the national average. Service sector employment in Kerala experienced less decline than manufacturing and construction but was still higher than the national average and other states.

### 3.4. Type of employment contracts

The COVID-19 crisis has disproportionately impacted employment across various sections of society, including those employed under different types of contracts. Daily wage or casual labour in Kerala experienced the highest fall (64%) compared to other types of employment and other states during the first wave (Jan-April 2020). However, in May-Aug 2020, daily wage employment in Kerala increased by 122.9%, while low-income states experienced a significant fall (68.55%) and high-income states showed a marginal decline (77.3%). In the second wave (May-Aug 2021), the employment of daily wage labour in Kerala fell from 115.9% to 102%, while all India declined from 99.4% to 94.6%, indicating a much higher impact of the second wave in Kerala (Table 4, Panel A).

**Table 4:** Employment impact by type of employment

Wave	Kerala	Low-Income States	High-Income States	All India
<b>Panel A: Daily wage/Casual labour</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	64.07	86.57	78.39	83
May-Aug 2020	122.9	68.55	77.82	73.45
Sep-Dec 2020	107.9	93.09	93.91	94.26
Jan-April 2021	115.92	99.98	97.82	99.44
May-Aug 2021	102.02	93.3	95.14	94.69
<b>Panel B: Salaried-Permanent</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	92.32	92.95	97.02	96.82
May-Aug 2020	64.61	70.54	75.06	75.43
Sep-Dec 2020	72.66	70.57	90.62	81.18
Jan-April 2021	77.26	81.77	101.78	92.83
May-Aug 2021	74.6	84.16	100.5	93.74
<b>Panel C: Salaried-Temporary</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	92.31	97.58	92.07	94.87
May-Aug 2020	77.49	81.21	82.92	82.34
Sep-Dec 2020	96.43	90.3	80.23	85.55
Jan-April 2021	102.65	97.13	90.24	94.92
May-Aug 2021	105.97	90.3	83.37	87.63
<b>Panel D: Self-employed</b>				
Sep-Dec 2019	100	100	100	100
Jan-April 2020	82.78	100.45	98.14	99.78
May-Aug 2020	84.57	109.65	103.21	106.77
Sep-Dec 2020	92.15	108.48	100.61	105.02
Jan-April 2021	84.65	104.4	96.14	100.72
May-Aug 2021	82.69	106.94	97.21	103.08

Source: Author's calculations based on CMIE-CPHS



The daily wage workers and salaried employees are being hit the hardest during COVID-19. In terms of recovery, there was an increase in the employment of daily wage labourers and salaried contract employment while the recovery for permanent salaried workers has been sluggish, indicating a rise in informalisation in the labour market.

The impact of COVID-19 on employment has not been the same in other types of employment contracts. The employment of permanent salaried workers also declined significantly, falling to 92.32% in Jan-April 2020 and further to 64% in May-August 2020, with only a 74.6% recovery by May-August 2021, indicating poor employment recovery. The employment of temporary salaried workers showed a similar trend but with lower intensity. Self-employed individuals in Kerala were hit hard, with employment declining to 82.7% in Jan-April 2020, and showing a recovery of only 82% in May-August 2021, which is much below the national average and high-income states. The pandemic has led to job insecurity and formalization of the labor market, with people who lost jobs joining temporary contractual jobs.

#### **4. Conclusion**

The analysis of the employment impact of COVID in Kerala from a comparative perspective shows that the state has witnessed the highest employment decline in the first and second waves of COVID and lagging behind other states in terms of employment recovery (Kakarlapudi and Shagishna, 2023). One out of eight people who lost jobs during the pandemic is Kerala.

The employment scenario in Kerala during the COVID pandemic revealed some concerning findings. The study highlights that the construction and manufacturing sectors were hit the hardest, resulting in a significant loss of employment in these sectors. Construction, which contributes to almost double the share of Kerala's GDP compared to the national average, saw a fall of 50 per cent in employment during the first wave. In comparison, manufacturing in Kerala saw three times more job losses than the national average, with the slowest recovery. Interestingly, the study also suggests increased informalisation in the labour market, with more people joining the workforce as daily wage workers and casual labourers. Additionally, the pandemic has led to a rise in temporary jobs, indicating a shift in employment contracts.

In contrast to national trends, Kerala exhibited some unique employment patterns during the COVID pandemic. One significant difference was the lower impact on youth employment, with better recovery rates in Kerala. This could be attributed to the significant increase in the gig economy, although international evidence suggests that such employment is precarious and of low quality. Second, the SC-STs were the worst affected in terms of employment loss in Kerala and other states, followed by OBCs and the general category. But Kerala showed faster employment recovery of SC-ST employment in the subsequent months, while in other states, their recovery was slower than the OBCs and people belonging to the general category.

The study's results have significant policy implications for Kerala and other states with comparable employment difficulties. The study suggests that the growth of informal employment and the creation of more temporary jobs than permanent ones throughout the pandemic indicate a pressing need for policy interventions that improve the quality of employment opportunities and social security for informal sector workers. Furthermore, it highlights the need for targeted support for vulnerable groups, such as SC-STs, in their employment recovery. These policy interventions may include upskilling programs, the implementation of social protection schemes, and improving the quality of work and employment conditions in the informal sector.

## References

- Abraham, R., Basole, A., & Kesar, S. (2021). Down and out? The gendered impact of the Covid-19 pandemic on India's labour market. *Economic Political*, 1-28.
- Azim Premji University (2021) State of Working India 2021: *One year of Covid-19*, Centre for Sustainable Employment, Azim Premji University.
- CMIE. (2020). CMIE statistics. Centre for Monitoring Indian Economy. <https://www.cmie.com/>.
- International Labour Organisation (2020) Youth and COVID-19: Impact on Jobs, Education, Right and Mental Well-being, Geneva.
- International Labour Organisation. (2020). Impact of Lockdown Measures on the Informal Economy. ILO Brief (April). Geneva: ILO
- International Labour Organisation. (2021). *COVID-19 and the World of Work. Seventh Edition Updated Estimates and Analysis*. ILO Monitor – 8th edition. Geneva: ILO

- International Labour Organisation (2022). *World Employment and Social Outlook: Trends 2022*. Geneva: ILO
- Kakarlapudi, K. K. (2022, September). Employment Impact of COVID-19 in Kerala: Is There a V-shaped Recovery?. Discussion Paper. Retrieved from Gulati Institute of Finance and Taxation. [https://www.gift.res.in/index.php/publish/list\\_detail/309/0922](https://www.gift.res.in/index.php/publish/list_detail/309/0922)
- Kakarlapudi, K. K., & Shagishna, K. (2023) COVID-19 and unemployment: How does Kerala compare with other States?. *Kerala Economy*, 3(4) pp57-66
- Kannan, K. P., & Khan, M. I. (2022). Loss of Job, Work, and Income in the Time of COVID-19. *Economic & Political Weekly*, 57(2), 37.
- Mohanan, P. C & Kar, A (2022) Impact of Lockdown on Employment and Earnings, *Economic & Political Weekly*, 57(30)
- Organisation for Economic Cooperation and Development (2020). *The Impact of the COVID-19 Pandemic on Jobs and Incomes in G20 Economies*. Saudi Arabia's G20 Presidency 2020: OECD.
- Reserve Bank of India (2022, September 16). *Impact of COVID-19 on Economic Activity Across Indian States*. RBI: India
- Vyas, M (2020). Impact of Lockdown on Labour in India. *The Indian Journal of Labour Economics*, 63(1), 73-77.
- Walter, D. (2020). Implications of Covid-19 for labour and employment in India. *The Indian Journal of Labour Economics*, 63(1), 47-51.