

# **Loss of Kerala's GDP and Employment due to 21 Day Lockdown : An Estimate**

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### **Introduction**

In order to prevent the rapid spread of Covid19, the Kerala government declared a complete lockdown in the State from March 24, 2020. The next day, the government of India announced a 21 day lockdown for the entire country. A lockdown similar to a curfew was implemented on every state, union territory, district and village in India. All Central and State government offices, commercial, private establishments and transport services were closed. All modes of transport-road, rail and air were stopped. All educational institutions, place of worship, functions and gathering of were stopped. Except a few essential services such as shops dealing with food, groceries, fruits, ration shops, banks and ATMs, telecom services, delivery of food and medicines, petrol pumps, LPG distribution, power supply etc, all other production, service and trading activities were stopped. Severe restrictions were imposed on the people who walk, ride in a two wheeler or travel in a motor car in the roads. This curfew like situation suddenly halted almost the entire economic activities – travel of people, transport of goods, production of goods and services, employment, trade etc – paralysed the economy except a few essential services. Due to complete lockdown of the country in 21 day, there has been an unprecedented fall in production of goods and services and fall in employment.

In this context an attempt is made to present an estimate of the magnitude of the loss of gross state domestic product (GSDP) and employment of Kerala due to the 21 day lockdown. The GSDP of Kerala or state income is defined as the aggregate of all the money value of final goods and services produced within the geographical boundaries of the state, without duplication during a period of one year.

### **Method of Estimation**

The method followed to estimate the loss in GSDP is based on the following. First, in the absence of GSDP data for 2019-20, we have taken the sector wise GSDP data for 2018-19 published by the Department of Economics and Statistics as the base. Second, based on the data we have worked out the GSDP for a day for each sector and sub sectors (average). Third, the rate of loss of state income for each sub-sector and sector is worked based on the reports published in print and electronic media on the economic effect of lockdown and our own

assessments. Fourth, regarding primary sector, we estimate a loss of 70 percent for crops, 50 percent for livestock, 90 percent for forestry and 100 percent for fisheries and mining and quarrying. Fifth, due to lockdown all the construction activities came to a total stop (100 percent loss). Sixth, in trade, repairs, hotels, restaurants sub-sector it is assumed that only trade in essential items are taken place. Seventh, in transport and communications, we assumed 100 percent loss in rail services, 90 percent loss in road transport, 100 percent loss in air transport, 100 percent loss in storage and 50 percent of loss in communications. Eighth, the loss in public administration is estimated as 40 percent. Ninth, based on the above estimation of loss per sector, we worked out loss rate, loss per day and loss of GSDP for 21 day (Table 1).

**Table 1**  
**Loss in GSDP due to 21 day lockdown in Kerala (₹ in crore)**

No	Item	GSDP 2018-19 (Q)	GSDP for one day	% of loss due to lockdown	Loss per day	Loss for 21 day
1	Agriculture, forestry and fishing	74733.60	204.75	73	149.47	3138.87
2	Mining and quarrying	3057.22	8.38	100	8.38	175.98
	<b>Primary</b>	<b>77790.83</b>	<b>213.13</b>	<b>74</b>	<b>157.85</b>	<b>3314.85</b>
3	Manufacturing	75368.65	206.49	80	165.19	3469.03
4	Electricity, gas, water supply & other utility services	8869.91	24.30	40	9.72	204.12
5	Construction	91985.87	252.02	100	252.02	5292.42
	<b>Secondary</b>	<b>176224.43</b>	<b>482.81</b>	<b>88.4</b>	<b>426.93</b>	<b>8965.53</b>
6	Trade, repair, hotels and restaurants	134427.27	368.29	76	279.90	5877.90
7	Transport, storage, communication	45733.18	125.30	82	102.75	2157.75
8	Financial services	27571.80	75.54	70	52.88	1110.48
9	Real estate, ownership of dwelling & professional services	114070.95	312.52	90	281.27	5906.67
10	Public administration	27362.03	74.96	40	29.98	629.58
11	Other services	97130.92	266.11	80	212.89	4470.69
	<b>Tertiary</b>	<b>446296.16</b>	<b>1222.73</b>	<b>78.5</b>	<b>959.67</b>	<b>20153.07</b>
<b>12</b>	<b>TOTAL GSVA at basic prices</b>	<b>700311.42</b>	<b>1918.66</b>	<b>80.5</b>	<b>1544.45</b>	<b>32433.45</b>
13	Taxes on Products	88317.46	241.97	80	193.57	4065.09
14	Subsidies on products	6975.62	19.11	80	15.29	321.04
<b>15</b>	<b>Gross State Domestic Product</b>	<b>781653.26</b>	<b>2141.52</b>	<b>82</b>	<b>1753.31</b>	<b>36819.51</b>

Q: quick estimate

### **Loss of GSDP for 21 day lockdown: Major findings**

- We estimate that the total rate of loss of GSDP is 82 percent and total amount of loss is ₹ 36819 crore for 21 day (Table 1). The estimate is a lower estimate (about 10 percent) as we have taken GSDP data for 2018-19 as a base.
- The primary sector has incurred a loss of 74 percent and the total loss is estimated as ₹ 3315 crore.
- Manufacturing (industries) incurred a loss of 80 percent and the total loss is estimated as ₹3469 crore.
- The construction sector incurred 100 percent loss and the total loss is estimated as ₹5292 crore.
- The secondary sector comprises of manufacturing, electricity, gas, water supply and construction incurred a huge loss 88.4 percent and the total loss is estimated as ₹8966 crore.
- The loss of trade, repair, hotels and restaurants is 76 percent and the total loss is estimated as ₹5878 crore.
- Transport storage and communication incurred a loss of 82 percent and the total loss is estimated as ₹2158 crore.
- The real estate ownership, dwelling and professional services incurred a loss of 90 percent and the total loss is estimated as ₹5907 crore.
- A subsector which registered a lower rate of loss is public administration (40 percent)
- On the whole the tertiary sector incurred a loss of 78.5 percent and the total loss is ₹20153 crore.

### **Total Employment and Loss of Employment**

The NSO periodic labour force survey gives an estimate about the sector wise share of employment in Kerala for 2017-18. According to it, the share of employment (workers) in primary sector is 20 percent, secondary sector 31 percent and tertiary sector 49 percent (Table

2). The NSO survey also gives estimates on total workers in formal and informal sectors. The share of formal sector worker consists of regular wage, salary workers in private and public sectors and accounted for 33 percent of the total workers (Table 3). The informal sector comprises of self-employed (38 percent) and casual workers (29 percent) and accounts for 67 percent of total workers. The self-employed consists of own account worker, employer and helper in household enterprises.

**Table 2**  
**Distribution of workers and loss in employment due to lockdown**

No	Item	% Distribution of workers (NSO 2017-18)	Loss in employment due to 21 day lockdown (%)
1	Agriculture, forestry and fishing	19.85	73
2	Mining and quarrying	0.26	100
<b>Primary</b>		<b>20.11</b>	<b>74</b>
3	Manufacturing	11.31	80
4	Electricity, gas, water supply & other utility services	0.65	40
5	Construction	19.11	100
<b>Secondary</b>		<b>31.07</b>	<b>88</b>
6	Wholesale and retail trade; repair of motor vehicles and restaurants	16.76	76
7	Transportation ,storage and communication	10.68	82
8	Financial, real estate and professional services	4.51	90
9	Education	4.96	80
10	Health and social work activities	3.46	40
11	Public administration and other services	3.79	40
12	Other services	4.66	80
<b>Tertiary</b>		<b>48.82</b>	<b>78</b>
<b>TOTAL</b>		<b>100.00</b>	<b>80</b>

**Table 3**  
**Distribution of workers in usual status (ps+ss) in Kerala (2017-18) (%)**

Category of persons	Category of employment			
	Self employed	Regular wage/salary	Casual labour	All
	<b>Rural</b>			
Male	40.7	24.7	34.6	100.0
Female	30.5	41.3	28.2	100.0
Person	38.0	29.2	32.9	100.0
	<b>Urban</b>			
Male	40.9	31.3	27.8	100.0
Female	28.5	55.7	15.8	100.0
Person	37.6	37.8	24.6	100.0
	<b>Rural +Urban</b>			
Male	40.8	27.5	31.7	100.0
Female	29.6	47.5	22.9	100.0
Person	37.8	32.9	29.3	100.0

Source: NSO (2019), Annual Report – Periodic Labour Force Survey (PLFS), July 2017-June 2018.

#### **Loss of employment due to 21 day lockdown : Major findings**

- The 21 day lockdown has inflicted huge loss on the employment in Kerala. We feel that magnitude of sector wise loss in employment is similar to the loss in production of goods and services. Based on our estimate on the loss of GSDP, we give a rough estimate about the loss of employment in Table 2.
- We estimate that the loss in employment due to 21 day lockdown in the state's economy comprising of primary, secondary and tertiary sectors is 80 percent.
- The loss in employment in primary sector consists of agriculture, forestry, fishing, mining and quarrying is 74 percent.
- The manufacturing (industries) incurred a loss of 80 percent.
- Electricity, gas and water supply incurred a loss of 40 percent.
- The construction subsector which accounts for 19 percent of total employment in Kerala experience 100 percent loss in employment.
- The total loss in secondary sector is estimated as 88 percent.

- The whole sale and retail trade, repair of motor vehicles and restaurants incurred a loss of 76 percent.
- Transportation, storage and communication incurred a loss of 82 percent.
- Financial, real estate and professional services incurred a loss of 90 percent
- Education subsector incurred a loss of 80 percent.
- On the other hand health and public administration incurred a loss of 40 percent.
- On the whole the tertiary sector incurred a loss of 78%

## **Conclusions**

The 21 day lockdown in Kerala and the country came to an end on April 14, 2020. And government of India has announced the extension of lockdown for another 19 day for the entire country on April 14. Thus the total day lockdown in India will increase to 40 day. Based on the loss of GSDP during the past 21 day, we can make an estimate of the loss of GSDP for 40 day. We estimate that the loss in GSDP for the 40 day lockdown will be ₹ 70132 crore in Kerala. The 40 day lockdown and the continuation of the Covid19 crisis will result in negative growth rate of GSDP during the fiscal year 2020-21. This is likely to be the worst economic crisis since the formation of the state. The return of large number of Kerala migrant workers from the Gulf countries and the consequent reduction in remittances will worsen the economic crisis. There will be large fall in the resources of the state (state tax and non-tax revenue) and will result in collapse of the state finances.

The 40 day lockdown will result in unprecedented loss in employment in primary, secondary and tertiary sectors. The construction sector which account for 19 percent of total employment will experience 100 percent loss in employment. The continuous loss of employment for 40 day will create grave situation to informal sector workers consists of self-employed and casual labourers. The total informal sector workers accounts for 71 percent in rural areas and 62 percent in urban areas. The lockdown will push majority of the informal sector workers to acute unemployment, financial crisis, indebtedness and economic distress.