

Original Research Article

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## Impact of Covid 19 on Income and Employment: A Case Study of Chhattisgarh

Laxmi Bagh<sup>id</sup>\*, A. K. Gauraha and H. Pathak

Department of Agri-Business and Rural Management, Indira Gandhi Krishi Vishwavidyalaya,  
Raipur, Chhattisgarh-492012, India

*\*Corresponding author*

### ABSTRACT

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The present study aims to examine the impact of COVID 19 on income and employment of rural households. Study was conducted in the periphery of Raipur city in the state of Chhattisgarh. This study is comparison of income and employment of 2 years in the form of pre and post covid-19 pandemic, the first year was March 2019- March 2020 as pre COVID and second was April 2020- April 2021 as post COVID. Total 300 households were selected through random sampling methods; selection pattern was 150 from around 20 km and 150 households from above 20 km of Raipur city. The share of off farm and non-farm overall income was decreases from 44 to 43.57 and 21.73 to 20.71 per cent respectively; however farm income were increases 34.27 to 35.72 per cent. It was observed that overall farm employment increases from 33.97 to 37.43 per cent. The reason was sampled households were more indulging in farm activities. Study revealed that off-farm and non-farm employment was decreases from 42.68 to 42.32 and 23.35 to 20.24 per cent respectively. The overall percentage change was 3.54 per cent, at the same time employment percentage change was decreases 9.24 per cent.

### Introduction

The world is witnessing an unanticipated public health crisis because of the COVID-19 pandemic also known as 'severe acute respiratory syndrome coronavirus-2 (SARS-Cov-2), (Arif and Sengupta, 2020). COVID-19 pandemic is the contemporary element of worriment across the world. Its effects as we can see on every aspects of our life. While the crisis is global, the impacts are territorially different.

It is the disease that is spread by Corona virus. COVID-19 pandemic has had significant psychological and social effects on the population (ILO, 2020); The COVID-19 pandemic has led to a dramatic loss of human life worldwide and presents an unprecedented challenge to public health, food systems and the world of work. Pandemic has caused a massive economic shock across the world due to business interruptions and shutdowns from social-distancing measures. This Research will

highlight the impact on economical and livelihood of vulnerable groups in rural households of the periphery in Raipur city. The economic and social disruption caused by the pandemic is devastating: tens of millions of people are at risk of falling into extreme poverty (Valeria *et al.*, 2020).

In the COVID-19 crisis food security, public health, and employment and labour issues, in particular workers' health and safety converge. Adhering to workplace safety and health practices and ensuring access to decent work and the protection of labour rights in all industries will be crucial in addressing the human dimension of the crisis.

Immediate and purposeful action to save lives and livelihoods should include extending social protection towards universal health coverage and income support for those most affected (ILO *et al.*, 2020). Millions of enterprises face an existential threat. Nearly half of the world's 3.3 billion global workforce are at risk of losing their livelihoods.

Informal economy workers are particularly vulnerable because the majority lacks social protection and access to quality health care and have lost access to productive assets (WHO, 2020).

Paul *et al.*, (2020) Studied that psychological and livelihood-related impact of corona virus disease 2019 (COVID-19) on Bangladeshi lower income group people who depend on daily earnings for their living. Following the convenience sampling method, 576 respondents were interviewed for quantitative data and 30 in-depth interviews for qualitative information in several districts of Bangladesh.

To 94.1% respondents, livelihood has been affected by the COVID-19 outbreak with an overall score of  $3.20 \pm 0.77$  on a 4-point Likert-type scale. In comparison to unemployed respondents, daily workers have been hardly affected by the COVID-19 outbreak (odds ratio [OR] = 7.957;  $P < .01$ ), and so they are going outside more frequently in search of jobs (OR = 9.984,  $P < .01$ ). Due to fear of COVID-19 infection and lack of livelihood means,

respondents (76.6%) have been stressed out (overall score  $3.19 \pm 0.81$  on a 4-point Likert-type scale), and those working in industries (OR = 5.818,  $P < .01$ ), farmers (OR = 3.029,  $P < .05$ ), and day laborers (OR = 2.651,  $P < .05$ ) have been highly stressed.

## **Materials and Methods**

### **Description of the study area**

The present study was conducted in Raipur city of Chhattisgarh. The study area was selected on the basis of stratified random sampling. The villages were selected purposively as a large proportion of population was dependent on agriculture and other households who did not have farm. Village from Raipur city was considered, 20 km around and 20 km above from the city.

### **Data collection**

The rural households were categorized into two major groups, viz. farm households and landless households. The households were further categorized into three groups, viz. marginal (up to 1.0 ha), small (>1.0 to 2.0 ha) and landless households. 100 sample from each of the three categories of households, making a total of 300 respondents constituting 100 marginal, 100 small and 100 landless. The selected households were interviewed using pre-structured questionnaire for collecting data on demographic characteristics, land use pattern, income and employment pattern with their sources, etc. in the year March 2019- March 2020 for pre COVID and April 2020- April 2021 for post COVID.

### **Analytical tools**

Tabular analysis was employed including percentages and averages in respect of occupation of sample households, land use pattern, income and employment etc. For both the sample year's to facilitate better comparison percentage change formula was used.

## **Results and Discussion**

### **Land Use Pattern**

Land use pattern of the selected households was presented given in the Table 1. The marginal and small farm total cultivated area was observed 65.77 and 168.30 hectare respectively. Overall on an average the cultivated area was to be found 117.03 hectare. It is clear from the table that the leased-in land at selected households is decreasing as the size of holding increased. It varied from 3.34 per cent at small farmers to 1.66 per cent at large farms to the total cultivated area. Overall on an average the leased- in land was found 2.13 hectare.

### **Participation in various incomes generating activity of sampled households**

The study revealed that participation in various income generating activities among all the households categories. It can be seen in Table 2 shows that in the major participation for income generation of sampled household were off farm activities which were 52.93 per cent of total working members. Whereas the participation in Farm and non-farm activities of sampled households was 28.09 and 18.98 per cent respectively.

### **Income from different sources per households per Annum (In Rs.)**

Income received from farm, off farm and non-farm activities was estimated in Rs. per household/annum it is given in Table 3. Total income received by the households in farm activities was Rs. 45703 was in pre COVID; however post COVID 45949.30 per household per annum.

The contribution of farm income to total income was increase by 34. 27 to 35.72 per cent at the same time off-farm and non-farm income were decreased from 44 to 43.57 and 21.73 to 20.71 per cent per household per annum, it may be due to COVID 19 lockdown in pen India and in this situation many households faced unemployment. It can be seen

from Table 3 that percentage change in overall income of marginal farm and small farm decreased 4.46 and 3.30 per cent respectively. Landless household's income decreased 6.03 per cent. the overall percentage change over Pre COVID in income of sampled household's was 3.54 per cent, thus this study observed that marginal and small farm households was less affected by COVID 19 as compare to landless households.

### **Employment pattern of sampled households (Man days/ household/annum)**

Employment from farm, off farm and non-farm activities was estimated in Man days per household per annum it is given in Table 4. Overall Employment of per households from farm activities was 216 man days in pre COVID and post COVID was also 216 man days. Thus study revealed that farm employment was not changing even post COVID situation. And per cent increased of farm employment was from 33.97 to 37.44 per cent. At the same time off-farm and non-farm employment were decreased from 42.68 to 42.32 and 23.35 to 20.24 per cent per household per annum, the percentage change over pre COVID of off farm and non-farm were decreased 9.99 and 21.31, it may be due to COVID 19 lockdown in pen India, in this situation many households faced unemployment. It can be seen from Table 4 that percentage change in overall employment of marginal farm and small farm were decreased almost same 8.46 and 8.47 per cent respectively. Landless household's employment was decreased 14.59 per cent. the overall percentage change over Pre COVID in employment of sampled household's was decreased 9.24 per cent, thus this study observed that landless household's employment were more affected by COVID 19 as compare to marginal and small farm households. The study has revealed that in COVID 19 period farm activity was the main sources of income and employment with less contribution of off-farm and non-farm activities in the rural area of Raipur city of Chhattisgarh state. There exists a wide disparity in the economy of landless households, as the total income was higher under farm households.

**Table.1** Land use Pattern of the sampled households in periphery of Raipur city. (In ha)

Particulars	Marginal Farm	Small Farm	Average
<b>Total Owned Land</b>	63.57 (96.66)	165.5 (98.34)	114.53 (97.87)
<b>Leased In Land</b>	2.2 (3.34)	2.8 (1.66)	2.5 (2.13)
<b>Leased Out Land</b>	-	-	-
<b>Total Cultivated Land</b>	65.77 (100)	168.30 (100)	117.03 (100)
<b>Irrigated Area</b>	49.24 (74.87)	129.54 (76.97)	89.39 (76.38)
<b>Un Irrigated Area</b>	16.53 (25.13)	38.76 (23.03)	27.64 (23.62)

Note: Figures in the parentheses indicate the percentages to the total cultivated area.

**Table.2** Participation in various incomes generating activity of sampled households.

Particulars	Marginal	Small	Landless Households	Total
<b>a. Farm</b>	104 (39.39)	112 (41.18)	-	252 (28.09)
<b>b. Off Farm</b>	125 (47.35)	121 (44.48)	161 (69.10)	407 (52.93)
<b>c. Non-Farm</b>	35 (13.26)	39 (14.34)	72 (30.90)	146 (18.98)
<b>Working Members</b>	264 (100.00)	272 (100.00)	233 (100.00)	769 (100.00)

Source: Field survey

Note: Figures in the parentheses indicate the percentages to the total working members.

**Table.3** Income from different sources of sampled households. (In Rs./household/annum)

Particular	Marginal Farm (N=100)		Difference and % Change over Pre COVID	Small Farm (N=100)		Difference and % Change over Pre COVID	Landless Households (N=100)		Difference and % Change over Pre COVID	Overall (N=300)		Difference and % Change over Pre COVID
	Pre COVID	Post COVID		Pre COVID	Post COVID		Pre COVID	Post COVID		Pre COVID	Post COVID	
<b>I. Farm</b>	32626.00 (29.23)	33108.60 (30.03)	482.6 (1.48)	58780.00 (42.80)	58790.00 (44.26)	10 (0.02)	-	-	-	45703.00 (34.27)	45949.30 (35.72)	246.30 (0.53)
<b>II. Off Farm</b>	57415.50 (51.44)	55510.00 (51.35)	-1905.5 (-3.32)	56360.00 (41.03)	53240.00 (40.09)	-3120 (-5.54)	62217.5 0 (59.06)	59364.50 (59.96)	-2853 (-4.59)	58664.33 (44.00)	56038.17 (43.57)	-2626.2 (-4.47)
<b>III. Non-Farm</b>	21573.00 (19.33)	19478.40 (18.02)	-2094.6 (-9.71)	22208.00 (16.17)	20789.00 (15.65)	-1419 (-6.39)	43136.0 0 (40.94)	39640.00 (40.04)	-3496 (-8.10)	28972.33 (21.73)	26635.80 (20.71)	-2336.5 (-8.06)
<b>Total Income</b>	111614.5 (100.00)	108097.0 (100.00)	-4977 (-4.46)	137348.0 (100.00)	132819.0 (100.00)	-4529 (-3.30)	105353. 5 (100.00)	99004.50 (100.00)	-6349 (-6.03)	133339.7 (100.00)	128623.3 (100.00)	-4716.4 (-3.54)

Source: Field survey

Note: Pre COVID Period - March 2019 - March 2020 and Post COVID Period - April 2020 - April 2021.

Note: Figures in parentheses indicate percentage to total Income.

**Table.4** Employment pattern of sampled households. (Man days/ household/annum)

Particulars	Marginal Farm (N=100)		Difference and % Change over Pre COVID	Small Farm (N=100)		Difference and % Change over Pre COVID	Landless Households (N=100)		Difference and % Change over Pre COVID	Overall (N=300)		Difference and % Change over Pre COVID
	Pre COVID	Post COVID		Pre COVID	Post COVID		Pre COVID	Post COVID		Pre COVID	Post COVID	
<b>I. Farm</b>	208.00 (36.83)	208.00 (40.23)	-	224.00 (38.29)	224.00 (41.84)	-	-	-	-	216.00 (33.97)	216.00 (37.44)	-
<b>II. Off Farm</b>	250.00 (44.27)	225.00 (43.52)	-25.00 (-10)	242.00 (41.37)	217.80 (40.68)	-24.20 (-10)	322.00 (59.45)	289.80 (62.65)	-32.20 (-10)	271.33 (42.68)	244.20 (42.32)	-27.13 (-9.99)
<b>III. Non-Farm</b>	106.75 (18.90)	84.00 (16.25)	-22.75 (21.31)	118.95 (20.34)	93.60 (17.48)	-25.35 (21.31)	219.60 (40.55)	172.80 (37.35)	-46.80 (21.31)	148.43 (23.35)	116.80 (20.24)	-31.63 (-21.31)
<b>Total Employment</b>	564.75 (100.0)	517.00 (100.0)	-47.75 (-8.46)	584.95 (100.00)	535.40 (100.00)	-49.55 (-8.47)	541.60 (100.00)	462.60 (100.00)	-79.00 (14.59)	635.77 (100.00)	577.00 (100.00)	-58.77 (-9.24)

Source: Field survey

Note: Pre COVID Period - March 2019 - March 2020 and Post COVID Period - April 2020 - April 2021.

Note: Figures in parentheses indicate percentage to total Employment.

Fig.1



Fig.1 Map of Chhattisgarh



Fig.2 Map of study area

Within farm households, a wide disparity has been observed between income of marginal and small farm households also. The *kharif* crops have been found to generate a major portion of farm households' income and *rabi* crops contributed a less portion, reason was in *kharif* season crops were grown in 96 ha and in *rabi* season crops were grown in 83 ha only. It is observed that major percentage change in overall income is recorded in non-farm. On overall basis, employment generation has been found maximum in off farm activities, followed by farm and non-farm activities. The contribution of off farm employment has been found higher in landless

households than marginal and small farm household. The study also revealed that in landless households faced more unemployment in COVID 19 situation. Overall major employment percentage change recorded in non-farm activities. Based on these findings, the follow suggestion should be considered for addressing the impacts of the pandemic and supporting an effective recovery. Innovative policy tools for supporting rural non-farm enterprises are critical. For informal businesses this may involve cash grants provided through public safety net systems.



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