

# Impact of Covid-19 Pandemic on Rural India: An Empirical Study

**Mr. Suresh Kashinath Ghatge** (Corresponding Author)

Ph.D. Research Scholar, Department of Sociology

MIT WPU, Pune.

Email: [suresh.k.ghatge@gmail.com](mailto:suresh.k.ghatge@gmail.com)

**Prof.(Dr.) Anuradha Parasar,**

Professor in Liberal Arts, MIT WPU, Pune

Email: [anuradha.parasar@mitwpu.edu.in](mailto:anuradha.parasar@mitwpu.edu.in)

## Abstract

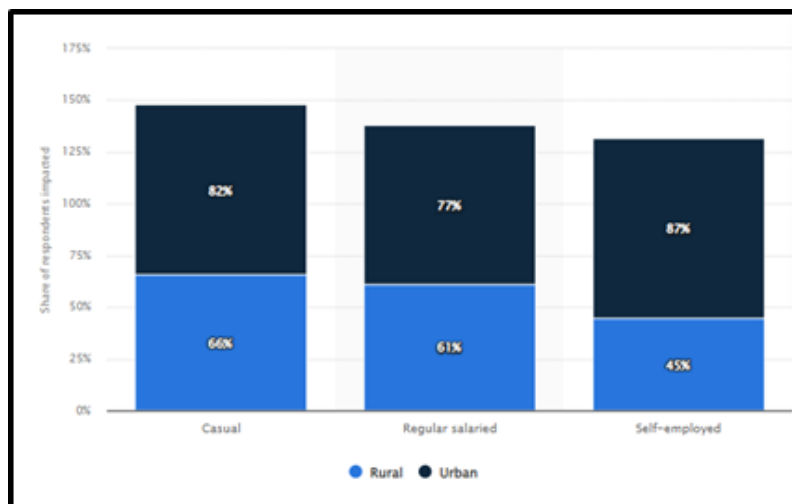
The rural population of India is the main focus of this study and the impacts of the pandemic crisis in 2020 on specifically rural India are discussed in this study. A large percentage of the entire population of India is the rural population which has been suffering from unemployment. There are many schemes and policies provided by the Indian government for the financial development of the specific population but the rapid increment of unemployment is poorly impacting the economic stability of rural India. The researcher has used secondary sources such as articles, news journals and governmental sites for gathering numerical data which are evaluated quantitatively. Thereafter, SPSS software is used for generating descriptive statistics and graphs. Statistical analysis of collected objective data improved the quality of the article as well as made it more understandable.

**Keywords:** *rural population, pandemic crisis, economic stability, unemployment, rural India*

## Introduction

The study sheds light on the impacts of the COVID-19 pandemic crisis on rural India. The rural population refers to the people who live outside the cities and majorly work in the agricultural sector. The number of rural people is increasing day by day and most of the population in India lives in rural areas rather than urban areas. The populations who get fewer facilities than the urban population are called rural people in the Indian society. Thereafter, the pandemic crisis has highly impacted physical health, mental health, economic stability, education and other factors. This article is focused on analysing the impacts of COVID-19 on different factors within the rural population of India.

The rural population of India mostly works in the agricultural sector which highly contributes to the GDP of the country. It is identified that the rural population of India was **898,024,053 in 2019** and **900,239,774 in 2020** which indicates a **0.25% increase** in the rural population (Macro Trends, 2022). There has been a negative and large impact of the pandemic crisis on the rural population of India. The employment rate of the rural population has been immensely impacted by the pandemic crisis and that has affected their economic stability.



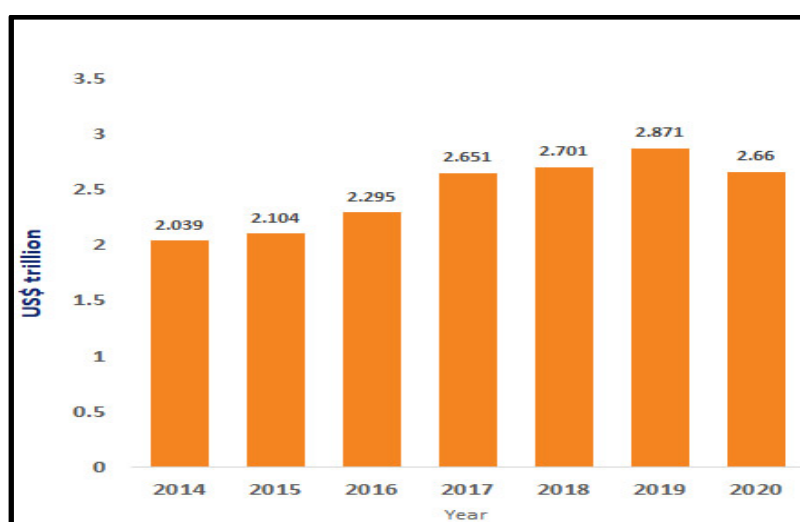
**Figure 1: Impact of COVID-19 on employment in rural and urban India**

(Source: Statista, 2022)

The figure above represents the percentage of employment decrease in the rural areas of India. **About 66%** of casual workers from the rural population have lost their employment during the pandemic crisis. Furthermore, **nearly 61%** of the regular salaried population and **about 45%** of the self-employed people in the rural areas of India lost their employment (Statista, 2022). Poor economic conditions and increased mortality rates in the rural areas of India took the Indian government to add some schemes and policies for the development of the rural population. India ranks in the first position as a rural country and therefore improving the employment rate among the rural population is important for developing the GDP growth of the country. An increment in the unemployment rate in rural India was identified in August of this year which indicates the unemployment rate is **about 7.7%** in rural India (Livemint, 2022). It is high time to implement more governmental initiatives for improving employment and economic stability within the rural population of India. Hence, the poor impact of the pandemic and the adoption of schemes in rural India are discussed in this study.

### Effect of Covid-19 on the Indian economy

The global economy has been impacted by the pandemic crisis in 2019-20 and therefore the Indian economy has been poorly affected by the pandemic. Along with negative health and mental health impacts, the pandemic crisis highly impacted the economic condition and employment rate of the country. It can be noticed in the figure below that the GDP of the country was *US\$ 2.871 trillion* in 2019 which turned to *US\$ 2.66 trillion* in 2020 (Ibef.org, 2022). Hence, the GDP of India has decreased in 2020 during the pandemic situation which represents the negative impact of COVID-19 on the Indian economy. In addition to that, a huge decrease in the employment rate in India is identified in the first and second year of the pandemic.



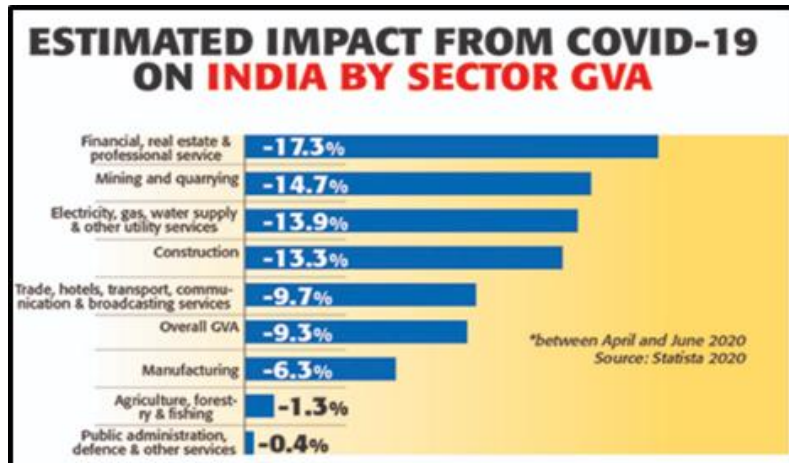
**Figure 2: Indian GDP price from 2014 to 2020**

(Source: Ibef.org, 2022)

The GDP growth of the country and the economic stability of the country are based on its employment rate. Therefore, a large decline in the employment rate of India during the pandemic crisis is one of the major reasons for the poor economic situation. It is identified that the employment rate of India fell by **10.9%** in the first year of the pandemic as well as fell by **10.4%** in the second year of the crisis (Economictimes, 2022). Due to the stoppage of transportation businesses were stopped and along with that people needed to maintain social isolation during that time which led to a huge decline in the employment rate of the country. The Indian economy has suffered a lot because of the pandemic crisis and people have mainly experienced poor economic conditions after the pandemic situation.

On the other hand, different large sectors of India such as the agricultural sector, tourism sector, telecom sector, pharmaceutical sector, oil and gas sector and others have been immensely impacted during that time. The pandemic crisis has had the largest impact on the aviation and

tourism industry of India which is the industry that has the highest contribution to the Indian GDP. As estimated, the aviation and tourism industry has experienced a loss of *about 85 billion rupees* due to the restrictions on travel (TimesofIndia, 2021). Apart from that, only the IT industry of India has experienced effective growth in financial condition as the use of technologies has increased during that time.



**Figure 3: Impact of the pandemic on GVA of different sectors of India**

(Source: Economic Times, 2020)

It is identified that more use of mobile applications and other technologies for completing basic needs during the pandemic has positively impacted the industry. The revenue of the IT industry was *\$167 billion in 2018* which turned to *\$191 billion in 2020* (Statista, 2022). In addition to that, the figure above represents the GVA rate of different sectors of India which signifies that the pandemic has majorly impacted the finance sector of the country. The GVA rate of the finance sector was *-17.3% in 2020* which indicates a huge impact of the pandemic crisis on the sector (Economic Times, 2020). Hence, it can be stated that employment in the country has been poorly affected by the pandemic situation which impacted the economic stability of the country during that time.

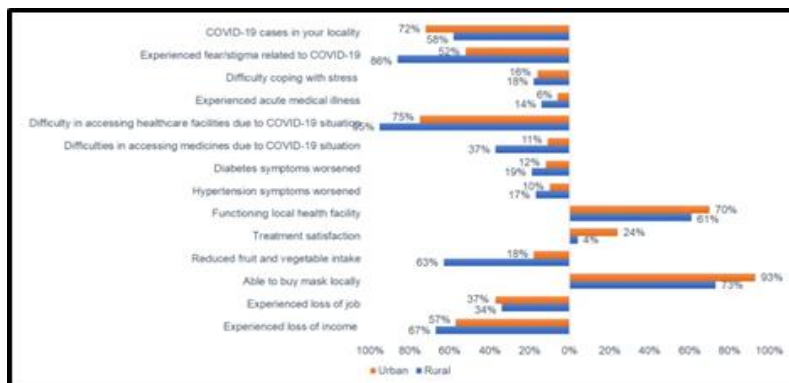
### **Impact of Covid-19 on rural India**

The rural population of India signifies a large percentage of the entire population of the country. Different factors in rural India have been impacted by the pandemic crisis which is health and mental health, employment, education and the economy. The immense impact of the COVID-19 pandemic crisis on all of these mentioned factors is evaluated below in this study.

#### ***Health and mental health***

The pandemic situation has highly impacted the health and mental health of people in rural India. It is identified that more than urban people, the rural population of India has experienced poor

mental health conditions. Different mental health disorders such as stress, depression, hypertension and others as well as physical problems such as diabetes and other medical illnesses have increased among rural people in India. **About 86%** of the rural population was scared and stressed about the spread of the virus, **nearly 19%** of rural people faced diabetes and **about 14%** of the rural population had several medical illnesses (BMCPublic Health, 2021). It can be noticed in the figure below that mental and physical illness has majorly increased among the rural population in comparison to the urban population.

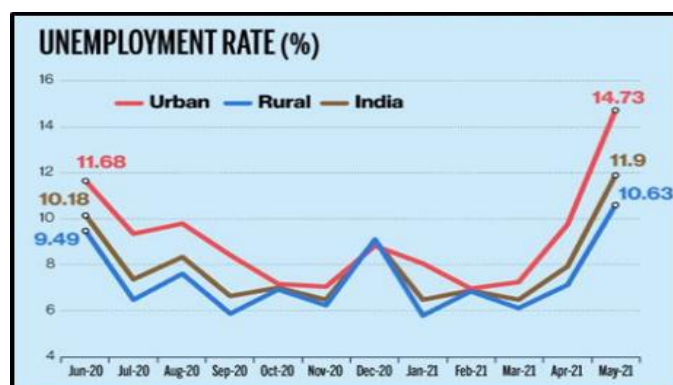


**Figure 4: Impact of the pandemic on health and mental health in rural India**

(Source: Bmcpublichealth, 2021)

### Employment

The employment rate of rural India has been greatly impacted by the pandemic situation and the increasing unemployment rate signifies that. In June 2020, the unemployment rate of the rural population was **11.68%** which changed to **14.73%** in May 2021 (Business today, 2020). The increment in the unemployment rate in 2021 indicates the negative impacts of the pandemic on rural India. The economic condition of rural India is based on its employment rate and due to increasing unemployment; the economic stability of the population has also decreased.

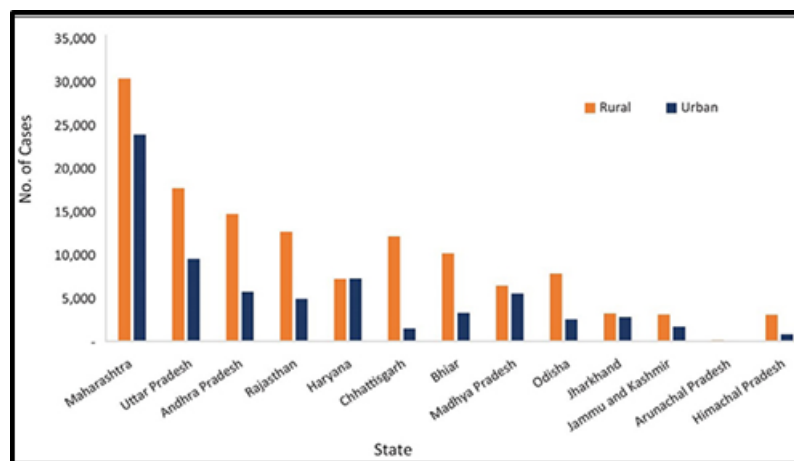


**Figure 5: Increasing unemployment rate in rural India**

(Source: Businesstoday, 2020)

### *Economy*

It is identified and analysed previously that the employment rate of the rural population of India has been negatively impacted during the pandemic crisis. Thereafter, the number of COVID cases was increasing among rural populations in different states which led to poor economic conditions. Rural people were majorly unable to be employed and that affected their economic stability poorly. It can be identified in the figure below that *about 35000 cases* of rural people were registered in Maharashtra and *nearly 18000 cases* were registered in Uttar Pradesh (Orfonline.org, 2021). Therefore, the poor health condition of rural people in 2020 led to more unemployment and that caused a poor economic situation.

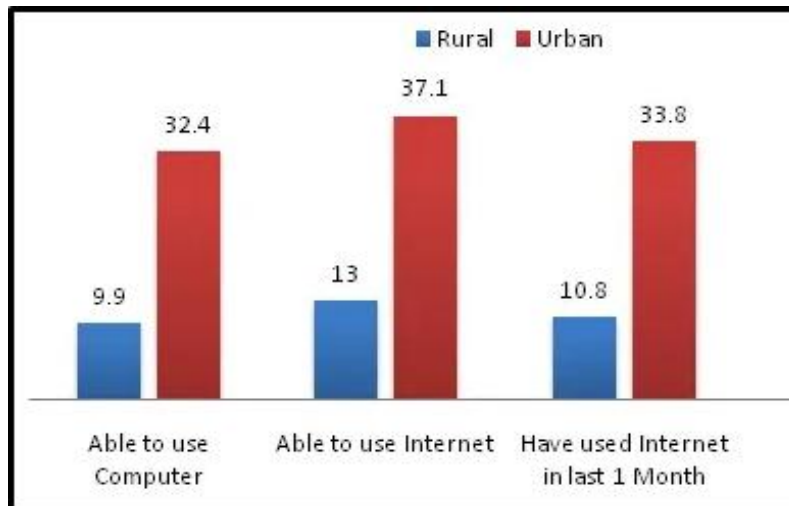


**Figure 6: Increasing number of COVID cases in rural India**

(Source: Orfonline.org, 2021)

### *Education*

Education is one of the most important factors that have been impacted by the pandemic all over India. Educational institutions and schools were closed for a long time during the pandemic situation which has negatively impacted the education system of rural India. Online education was promoted by the Indian government for continuing education but a lack of technical knowledge among the rural population led to poor education. *Only 9.9%* of the rural population is capable of using computers and *only 13%* of the population is capable of using the internet (Thepolicytimes, 2020). Hence, a lack of proper knowledge decreased the feasibility of online education among the rural population of India.



**Figure 7: Ability of online education in rural India**

(Source: Thepolicytimes, 2020)

### Adoption of schemes and adherence to legislation during Covid-19

There are particular schemes and legislations adopted by the Indian government for the development of rural India. *“The Mahatma Gandhi National Rural Employment Guarantee Act 2005”* has been one of the most significant schemes during that time. In 2019-20, there were **15.03 crore** active workers in rural India whereas there are **154602684 active workers** in recent times by the adoption of the scheme (Nrega.nic.in, 2022). In addition to that, *“PradhanMantriGaribKalyanYojana”* (PMGKY) was another significant scheme by the Indian government for rural development. Under this scheme, women who are "Jan Dhan Account holders" are given Rs 500 every month for three months for improving their economic situation (Rural.nic.in, 2021). There were many more schemes and legislations that helped to improve the condition of the rural population of India. Hence, it is important to implement more schemes and legislation for improving the employment rate in rural India for recovering from the negative impacts of the pandemic.

### Study Objectives

The objective of the research article will revolve around the following aspects:

- To understand the impact that Covid19 has cast on the Indian economy
- To evaluate different government initiatives undertaken to help out people in rural India
- To determine the benefits and drawbacks of the schemes and legislation in rural India

In this regard, these three goals have been assumed to discuss both the literature review whose headings have not been provided within the study and these goals have been finally obtained and discussed in the result and discussion section of the research article. Therefore, it has been important to address these goals before starting the research study.

## **Research Methodology**

The secondary information is obtained from different essential articles, websites and others. The secondary quantitative method has been assumed by the researcher to conduct this specific study where only secondary data has been collected from different secondary sources. Empirical research or study refers to particular research that has been based on a particular observation as well as the measurement of a phenomenon (Dźwigoł, & Dźwigoł-Barosz, 2018). In this regard, covid19 is assumed to be an unprecedented phenomenon that has affected developing countries such as India especially the state of rural India. Therefore, this particular phenomenon is measurable and observable at the same time. The performance of the chosen schemes is required to be measured to carry out the empirical study. Websites and articles are the main secondary sources that have been utilised by the researcher to derive the findings of the research article (Dodds, & Hess, 2020). The researcher has used effective software that is Statistical Package for the Social Sciences (SPSS) to analyse the secondary data.

SPSS is assumed to be statistical software that has been often utilised by the researcher in different disciplines to further conduct quantitative analysis of some specific complex data (Patel, & Patel, 2019). The researcher has indulged in creating a dataset in Microsoft Excel (Ms Excel) where data has been obtained from authentic and reliable secondary sources before conducting certain statistical tests such as regression, correlation, and other relevant tests on the SPSS software. Therefore, both excel and SPSS have been utilised to carry out the empirical study (Valente *et al.* 2020). The researcher has not considered the secondary qualitative method where the researcher is required to select some journal articles and only qualitative data which may not be enough to fulfil the criteria of empirical study. The Covid19 phenomenon cannot be studied only through qualitative data as qualitative data needs to be substantiated with quantitative data as well.

## **Results**

There are different departments of rural India or rural development that have been focused on by the Government of India over the period. In this respect, the performance on household employment, work participation of both women and SC and ST people, projects under “Start-up Village entrepreneurship Programmes” (SVEP), trained candidates and others. Therefore, these are the variables that have been considered in this research article to collect the findings.



Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000 <sup>a</sup>	1.000	.	.
a. Predictors: (Constant), Number of Candidates trained, Person-days Employment (Crores), Expenditure on agricultural and allied activities (%), Women Work Participation (%)				

Figure 8: Regression

(Source: SPSS)

The regression test shows that the value of R is 1.000 while the value of R square is 1.000. The other values such as the standard error of the estimate and adjusted R square have not been obtained after performing the test.

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.000	4	2.500	.	. <sup>b</sup>
	Residual	.000	0	.		
	Total	10.000	4			
a. Dependent Variable: Year						
b. Predictors: (Constant), Number of Candidates trained, Person-days Employment (Crores), Expenditure on agricultural and allied activities (%), Women Work Participation (%)						

Figure 9: Anova

(Source: SPSS)

The Anova result showcases the values of regression, residual and its associated total. It has been found that values of the sum of squares have been around 10.000 and 0.000 which provides a total of around 10.000. The values of DF are 4 and 0 which gives a total of 4 while the mean square values are 2.500.

Correlations									
		Year	Household Employment (Crores)	Person-days Employment (Crores)	SC/ST Work Participation (%)	Women Work Participation (%)	Expenditure on agricultural and allied activities (%)	Funds on projects and enterprises under SVEP (Lakhs)	Number of Candidates trained
Year	Pearson Correlation	1	.785	.603	-.836	-.782	.646	.973 <sup>**</sup>	-.722
	Sig. (2-tailed)		.116	.282	.078	.118	.239	.005	.168
	Sum of Squares and Cross-products	10.000	5.430	223.180	-2.680	-9.820	11.700	94371.750	-640599.000
	Covariance	2.500	1.358	55.795	-.670	-2.455	2.925	23592.937	-160149.750
	N	5	5	5	5	5	5	5	5
	Household Employment (Crores)	Pearson Correlation	.785	1	.915 <sup>**</sup>	-.577	-.893 <sup>**</sup>	.815	.848
Sig. (2-tailed)		.116		.030	.308	.041	.093	.070	.783
Sum of Squares and Cross-products		5.430	4.788	234.259	-1.281	-7.759	10.218	56884.923	-104883.566
Covariance		1.358	1.197	58.565	-.320	-1.940	2.555	14221.231	-26220.892
N		5	5	5	5	5	5	5	5
Person-days Employment (Crores)		Pearson Correlation	.603	.915 <sup>**</sup>	1	-.605	-.906 <sup>**</sup>	.558	.722
	Sig. (2-tailed)	.282	.030		.280	.034	.328	.168	.952
	Sum of Squares and Cross-products	223.180	234.259	13705.208	-71.835	-421.249	374.406	2593639.235	1226295.314
	Covariance	55.795	58.565	3426.302	-17.959	-105.312	93.601	648409.809	306573.829
	N	5	5	5	5	5	5	5	5

SC/ST Work Participation (%)	Pearson Correlation	-.836	-.577	-.605	1	.778	-.191	-.847	.647
	Sig. (2-tailed)	.078	.308	.280		.122	.759	.070	.238
	Sum of Squares and Cross-products	-2.680	-1.281	-71.835	1.028	3.132	-1.107	-26352.951	183926.364
	Covariance	-.670	-.320	-17.959	.257	.783	-.277	-6588.238	45981.591
	N	5	5	5	5	5	5	5	5
Women Work Participation (%)	Pearson Correlation	-.782	-.893 <sup>a</sup>	-.906 <sup>a</sup>	.778	1	-.489	-.812	.185
	Sig. (2-tailed)	.118	.041	.034	.122		.403	.095	.766
	Sum of Squares and Cross-products	-9.820	-7.759	-421.249	3.132	15.772	-11.131	-98896.664	206101.862
	Covariance	-2.455	-1.940	-105.312	.783	3.943	-2.783	-24724.166	51525.466
	N	5	5	5	5	5	5	5	5
Expenditure on agricultural and allied activities (%)	Pearson Correlation	.646	.815	.558	-.191	-.489	1	.680	-.243
	Sig. (2-tailed)	.239	.093	.328	.759	.403		.207	.694
	Sum of Squares and Cross-products	11.700	10.218	374.406	-1.107	-11.131	32.799	119422.684	-390038.404
	Covariance	2.925	2.555	93.601	-.277	-2.783	8.200	29855.671	-97509.601
	N	5	5	5	5	5	5	5	5
Funds on projects and enterprises under SVEP (Lakhs)	Pearson Correlation	.973 <sup>***</sup>	.848	.722	-.847	-.812	.680	1	-.650
	Sig. (2-tailed)	.005	.070	.168	.070	.095	.207		.235
	Sum of Squares and Cross-products	94371.750	56884.923	2593639.235	-26352.951	-98896.664	119422.684	940820017.5	-5594865251
	Covariance	23592.937	14221.231	648409.809	-6588.238	-24724.166	29855.671	235205004.4	-1398716313
	N	5	5	5	5	5	5	5	5
Number of Candidates trained	Pearson Correlation	-.722	-.171	.037	.647	.185	-.243	-.650	1
	Sig. (2-tailed)	.168	.783	.952	.238	.766	.694	.235	
	Sum of Squares and Cross-products	-640599.000	-104883.566	1226295.314	183926.364	206101.862	-390038.404	-5594865251	7.867E+10
	Covariance	-160149.750	-26220.892	306573.829	45981.591	51525.466	-97509.601	-1398716313	1.967E+10
	N	5	5	5	5	5	5	5	5

Figure 10: Correlation

(Source: SPSS)

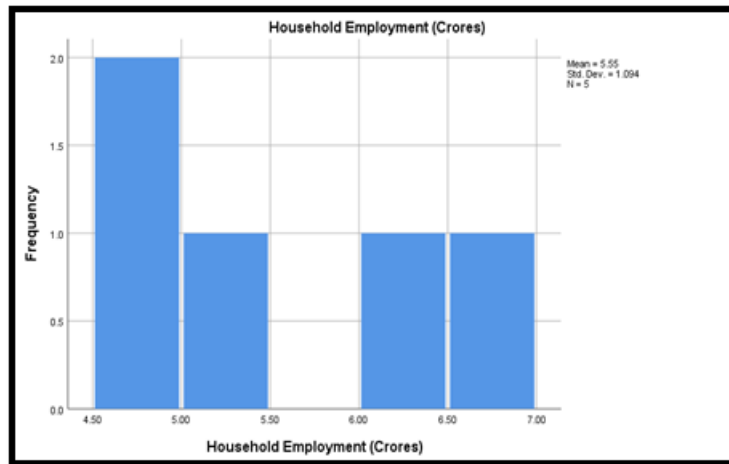
The correlation results show the values of Pearson correlation, sig (2-tailed), and the sum of squares along with cross products, covariance and others. The assumed variables have been tested and correlated to obtain the results. It has been found that sig (2-tailed) values are around 0.116, 0.282, 0.78, 0.118, 0.239, and others. The sig (2-tailed) values that have been obtained are around 0.116, 0.030, 0.308, 0.41 and others for another variable that is “household employment”. The sig (2-tailed) value for “person-days employment” is around 0.282, 0.030, 0.280 and others. The sig values have been determined through a consideration where the p-value needs to be higher than 0.05 to confirm the existence of a null or negative relationship between the assumed variables. In case the p-value is less for all these variables then there is an existence of an alternate hypothesis or positive relationship between the variables.

		Statistics						
Year		Household Employment (Crores)	Person-days Employment (Crores)	SC/ST Work Participation (%)	Women Work Participation (%)	Expenditure on agricultural and allied activities (%)	Funds on projects and enterprises under SVEP (Lakhs)	Number of Candidates trained
N	Valid	5	5	5	5	5	5	5
	Missing	0	0	0	0	0	0	0
Mean	2019.00	5.5520	240.5320000	38.13200000	55.1860	66.07800000	62475.50400	305381.60
Median	2019.00	5.2700	267.9100000	38.00000000	55.0000	66.07000000	57234.00000	387025.00
Mode	2017 <sup>a</sup>	4.51 <sup>a</sup>	177.470000 <sup>a</sup>	38.00000000	52.68 <sup>a</sup>	63.1300000 <sup>a</sup>	43256.0000 <sup>a</sup>	111367 <sup>a</sup>

Figure 11: Frequencies

(Source: SPSS)

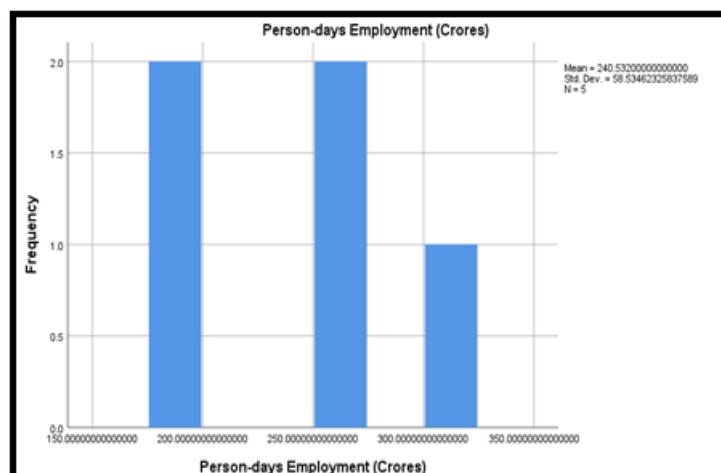
The mean values that have been collected are around 5.5520, 240.532, 38.132, 55.1860, 66.078, and others. The median values are 5.27, 267.91, 38.00, 55.00 and others as found after figuring out the frequencies. The mode is around 4.51, 177.47, 38.000, 52.68, 63.13 and others. Therefore, the mean, median and also mode have been found out of the respective variables.



**Figure 12: Histogram**

(Source: SPSS)

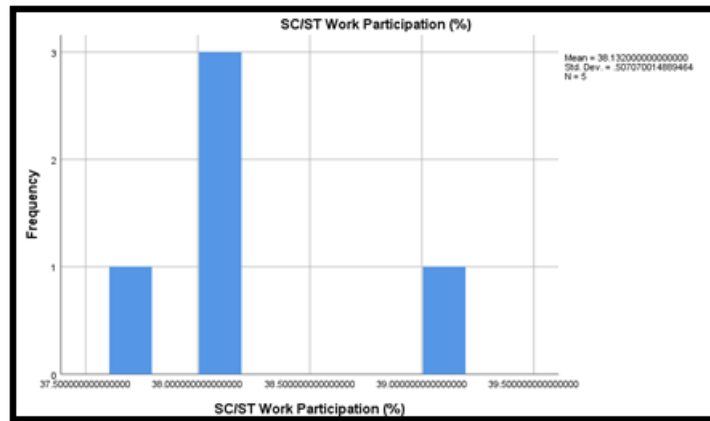
Household employment increased in 2021 followed by its increase in 2018 and other respective years. The value that has been obtained in 2021 is around 6.49 followed by around 5.27 and others as per the above graph.



**Figure 13: Histogram**

(Source: SPSS)

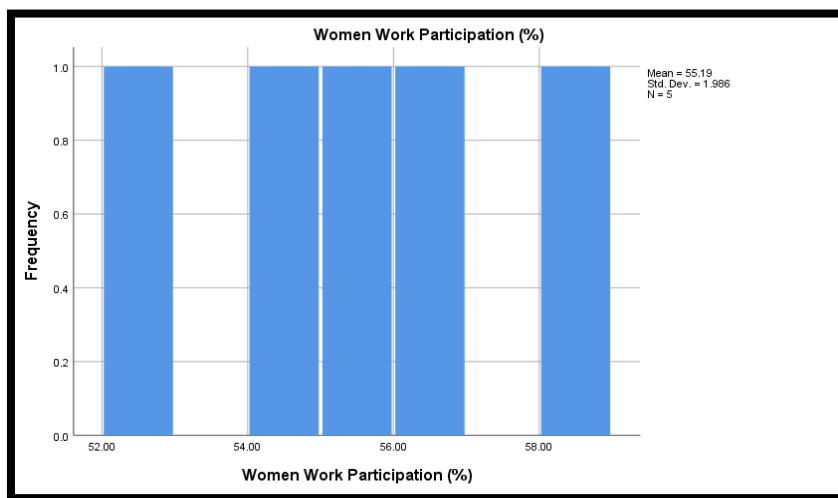
The above graph has been showing that “person-days employment” has been around 305.71 in 2020, 272.13 in 2021, 267.91 in 2018 and others. Thus, the highest value for this specific variable has been identified in comparison with other values of the same variable.



**Figure 14: Histogram**

(Source: SPSS)

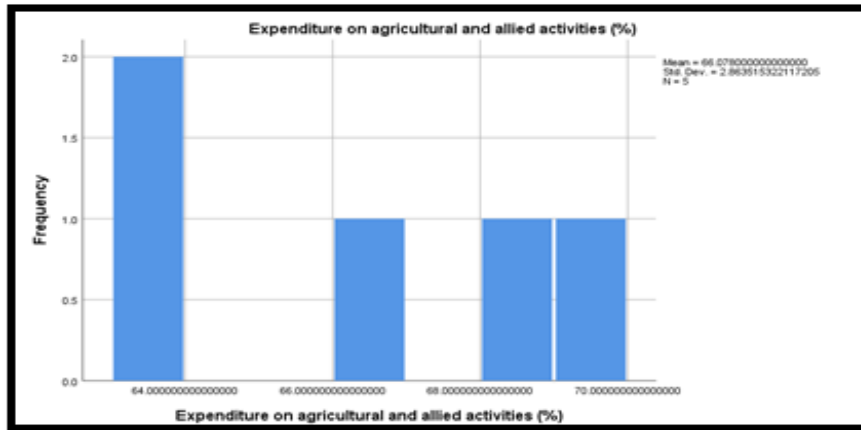
The histogram has acted as evidence to show the value which has been around 39, 38, 38, 38, 38 and also 37.66. The variable that has been considered is “SC and ST’s” participation in work in the chosen country. The SC and ST have been considered as these people are in maximum numbers in the rural areas of India.



**Figure 15: Histogram**

(Source: SPSS)

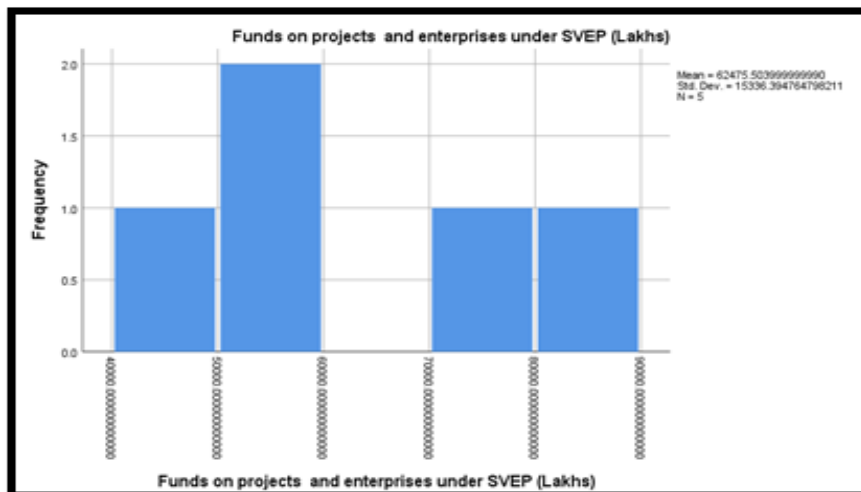
The women have been seen to have participated in the work as well where it has been witnessed that work participation level has remained the same which has been around 58, 55, 56, 52.68 and 54.25. In this aspect, it can be carefully seen that 58 is the highest number of women while 52.68 is considered to be the lowest number of women in rural India.



**Figure 16: Histogram**

(Source: SPSS)

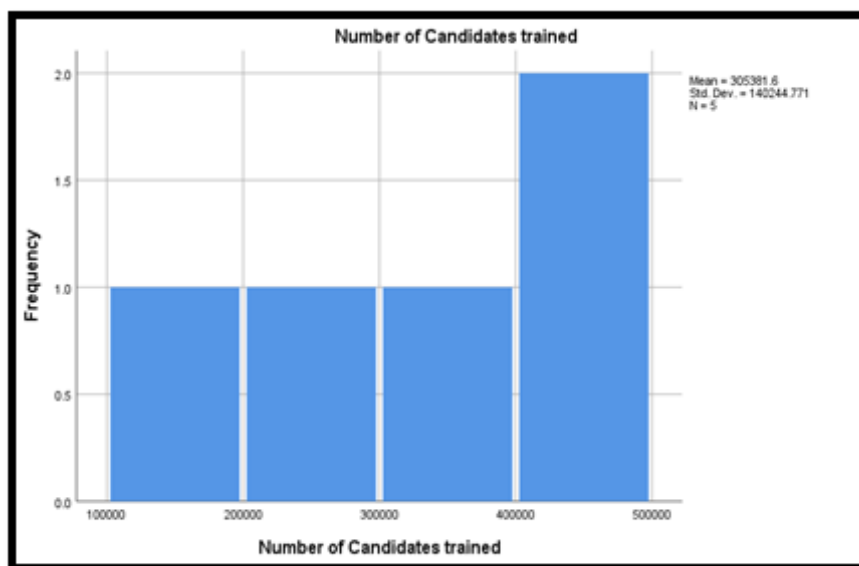
The expenditure that has been associated with agriculture along with allied activities has been another significant variable as rural India has been seen to be dependent on the productivity of agriculture. The expenditures are around 66.07, 63.33, 63.13, 68.55 and 69.31 where 69.31 is the highest expenditure while 63.13 has been considered to be the lowest value in respect of considering agricultural expenditure.



**Figure 17: Histogram**

(Source: SPSS)

The government of India has been witnessed to have made certain investments in different projects and also enterprises associated with SVEP where the highest funds have been seen to be invested as 83456.23. Conversely, the lowest fund under this programme is around 43256 according to the chart above.



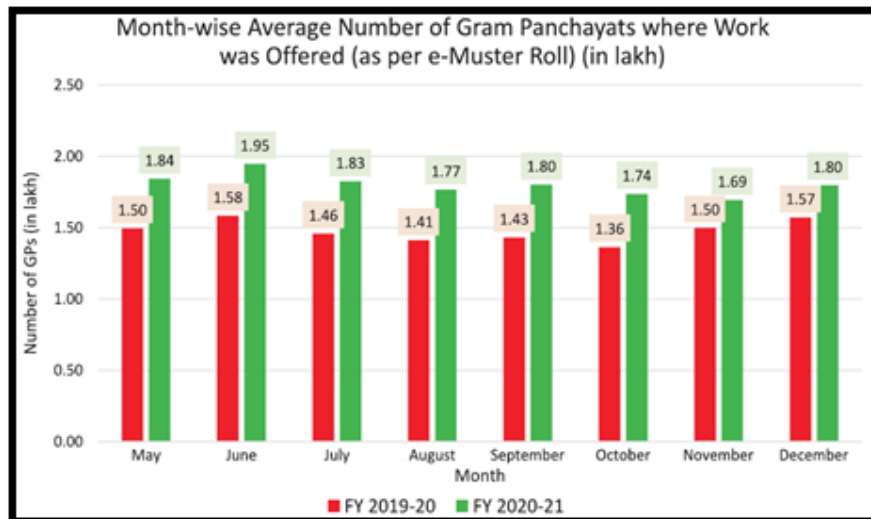
**Figure 18: Histogram**

(Source: SPSS)

The total number of candidates who have eventually been trained over the period is around 423343, 403672, 201501, 387025 and 111367. In this aspect, the highest value has been 111367 whereas the lowest value has been witnessed to be around 201501.

## Discussion

Household employment has been affected in 2019 as it is around 4.51 followed by around 6.9 in 2020. Household employment has been better in 2020 when Covid19 has been at its peak in comparison with 2019 (Rural, 2022). The person-days employment has been reduced to 177.47 while it has increased to 305.71. The increase in person-days employment means that employment of families and individuals within the household and per day basis has been improved during the pandemic in rural India. However, the effect during the initial stage of the pandemic in 2019 has been worse. The people with high income have not involved themselves in work participation unlike the participation witnessed among the SC, ST and women in some states of the country.



**Figure 19: Availability of work in Gram Panchayats in 2019 and 2020**

(Source: Rural, 2022)

The graph indicates that under Mahatma Gandhi NREGA, work has been provided every month of 2019 and 2020. However, the number of work has increased in 2020 unlike in 2019. The pandemic impacted work in 2019 however, the work condition (employment) of people have enhanced in 2020. The activities on “PoshanAbhiyan” are about offering nutrition and checking the health of the poor people during this time. The rural areas of Punjab are seen to be lagging during that time as compared with other states of the country (Kumar, 2022). Thus, people of some states of the country have suffered because of the negligence of the government to offer proper nutrition. SVEP is an important sub-scheme which falls under “DeendayalAntyodayaYojana -National Rural Livelihoods Mission (DAY-NRLM)” (Rural, 2022). This scheme offers assistance to poor people from rural places to set up enterprises and also offers support to set up those enterprises. There are around 112 startups that have been provided with funds in India (Pib, 2020).

### Scope of the study

The scope of the article points out those areas of rural development that have been affected due to Covid19 scenario. The research topic is important as it points out a relevant period which is the pandemic where rural India has been seen to be more affected than urban India. The government is required to implement more innovative policies and plans to enhance the condition of rural India and its people which will include men, women, children and also people from marginalised sectors. Therefore, the research article has been considered in terms of considering every people associated with rural India which forms an essential part of the economy and the country.

## Conclusion

The research article has been significant in respect of identifying one of the pertinent legislation that has been associated with rural development, rural employment, and others under certain schemes. The research article has pointed out that the researcher has adopted the secondary quantitative method over the consideration of the secondary qualitative method to collect secondary quantitative data over the secondary qualitative data, especially for this research. Thus, there is a reason behind the selection of the secondary quantitative method where secondary information has been validated with the help of numerical information. The research has highlighted that the rural population has greatly contributed to the country's GDP. It has been further found that the employment rate of the selected country has been immensely impacted in the wake of the pandemic. Therefore, the economic stability of India has been impacted due to its effect on the employment rate.

Additionally, the article has also put light on the fact that GDP of the country has been around US\$ 2.871 trillion which has become around US\$ 2.66 trillion in 2020. Thus, the GDP of the country has decreased to a great extent which has been emphasised in the article. 86% of the rural population is scared of the spread of the Coronavirus in their respective villages whereas the unemployment rate has been found to have increased which showcases the impact of Covid19 on the rural people of the country.

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