



# "Assessing Rural Resilience During the COVID-19 Pandemic A Comprehensive Study in Backward Regions of India"

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## Abstract

The COVID-19 pandemic has disproportionately affected marginalised regions across the globe, shedding light on pre-existing disparities and vulnerabilities.

This research paper presents a comprehensive study conducted in the backward regions of India during the pandemic, with the aim of assessing the socio-economic, infrastructural, and livelihood conditions of the local population.

The study employed a rigorous survey encompassing 38 blocks, examining essential village facilities, community roles, forest land utilisation, and the presence of various community organisations. This research serves as a holistic analysis of these regions, offering insights to inform future policy interventions.

## Introduction

This research paper presents a comprehensive study conducted during the COVID-19 pandemic in the backward regions of India. The primary objective of this study was to assess the current socio-economic and infrastructural scenarios and the livelihoods of the people residing in these regions. To achieve this, an extensive survey was undertaken, covering 38 blocks across the study area. The survey encompassed a wide range of aspects including, but not limited to, the availability of essential village facilities such as tubewells, crop patterns, rainwater harvesting systems, schools, primary health centres (PHCs), community health centres (CHCs), hospitals, banks, proximity to highways and markets, transportation options, public distribution system (PDS) shops, post offices, and the distances between these facilities, measured in hours, minutes, and seconds.

Additionally, this research delved into the presence and roles of various community members and government functionaries including Gram Sachiv, Gram Sevak, Talathi/Patwari/Amina, Krushi Sahayyak, ASHA workers, Anganwadi workers, Anganwadi sevikas, ANMs, Gram Rozgar Sevaks, Vet Doctors/Livestock Supervisors, and the details of unskilled agricultural work in the region. It also investigated critical factors such as local minimum and maximum wage rates for unskilled agricultural work for both men and women during the study year.

Furthermore, the study examined the availability and utilisation of forest land traditionally used by villagers in the vicinity of the surveyed villages. It inquired about the application and approval status of community forest rights (CFR) titles and individual forest rights (IFR) titles under the Forest Rights Act. Questions were also posed regarding the presence of Gram Sabhas operating under the Panchayat Extension to Schedule Areas (PESA) act.

### Objectives of the Study:

1. Infrastructure Assessment
2. Community Roles Examination
3. Forest Land Utilisation Analysis
4. Community Organizations Assessment
5. Geospatial Data Documentation

### Research Methodology:

The methodology used in this survey involved a systematic and comprehensive approach to gather data from the backward regions of India during the COVID-19 pandemic. The survey aimed to collect information on various socio-economic, infrastructural, and community aspects. Here is an overview of the methodology

1. **Survey Design** The survey was designed to cover 38 blocks within the study area. It included a structured questionnaire with both closed-ended and open-ended questions to gather relevant data.
2. **Data Collection** Trained field researchers and enumerators were deployed to visit the surveyed villages. They conducted face-to-face interviews and observations to collect data from the residents and local authorities.
3. **Key Informant Interviews** Interviews were conducted with key community members, including Gram Sachiv, Gram Sevak, Talathi/Patwari/Amina, Krushi Sahayyak, ASHA workers, Anganwadi workers, Anganwadi sevikas, ANMs, Gram Rozgar Sevaks, Vet Doctors/Livestock Supervisors, to gather insights into community roles and local governance.
4. **Infrastructural Assessment** Researchers assessed the availability and condition of essential village facilities, such as tubewells, schools, healthcare centres, banks, transportation options, public distribution system (PDS) shops, and more. Distances between these facilities were measured precisely.
5. **Wage Rate Surveys** Detailed surveys were conducted to determine the local minimum and maximum wage rates for unskilled agricultural work for both men and women during the study year.
6. **Forest Land Utilisation Information** was collected on the presence and uses of forest land traditionally utilised by villagers in the surveyed villages. Data on applications and approvals for community forest rights (CFR) and individual forest rights (IFR) titles under the Forest Rights Act were recorded.
7. **Community Organization Assessment** Researchers documented the presence and functioning of various community organisations, institutions, and cooperatives in the villages, including Self-Help Groups (SHGs), Village Health Sanitation & Nutrition Committees, School Development and Monitoring Committees, Producer Groups, Farmer Producer Organizations (FPOs), Milk Cooperatives, Caste associations, Development groups/NGOs, Village Rights Committees, and Yuva Kendras/Youth Clubs.

8. **Quality Control** Quality checks and validations were performed at various stages of data collection to ensure the accuracy and reliability of the data.

This multi-faceted methodology allowed for a holistic assessment of the backward regions, providing valuable insights into the living conditions, infrastructure, and community dynamics during the COVID-19 pandemic.

### **Primary Source:**

Primary data collection methods were employed to address the research objectives comprehensively. Here, we outline the primary data collected for this research

1. **Survey** Researchers conducted structured surveys to gather primary data from the residents of the surveyed villages. These surveys included questions related to various aspects of the villagers' lives, including their access to essential services, economic activities, and perceptions of their living conditions during the pandemic. Surveys were administered through face-to-face interviews, ensuring that responses were obtained directly from the individuals residing in the region.

2. **Interviews** Key informant interviews were conducted with community members who held significant roles in the villages, such as Gram Sachiv, Gram Sevak, Talathi/Patwari/Amina, Krushi Sahayyak, ASHA workers, Anganwadi workers, Anganwadi sevikas, ANMs, Gram Rozgar Sevaks, and Vet Doctors/Livestock Supervisors. These interviews provided insights into the functioning of local governance, healthcare systems, and agricultural practices.

3. **Observations** Researchers conducted direct observations to assess the physical condition and availability of village facilities. This involved on-site inspections of infrastructure such as tubewells, schools, healthcare centres, banks, and transportation options. Observations allowed for the collection of real-time, visual data regarding the state of these facilities.

### **Secondary Source:**

Utilising Census 2011 data as a secondary source can provide valuable contextual information and historical perspective. Census data is an authoritative and comprehensive source that offers insights into demographic, social, and economic characteristics of the population.

By using Census 2011 data it can contextualise the findings, identify trends, and better understand how the socio-economic landscape of the backward regions has evolved over the years. This historical perspective can enrich the analysis and provide a more comprehensive understanding of the region's challenges and opportunities.

### **Data Interpretation:**

Interpreting block-wise data for the various parameters provides insights into the localised conditions and challenges faced by different areas like

Certainly, block-wise data interpretation can be extended to include data on religion- based distribution, work-based distribution, caste-based distribution, visitation patterns of individuals working outside the village, remittances received, changes in remittances over 12 months, schooling before and after the pandemic, and income sources within each block.

1. Religion-based Distribution
2. Work-based Distribution
3. Caste-based Distribution
4. Visitation Patterns of Individuals Working Outside the Village
5. Remittances Received

6. Changes in Remittances Over 12 Months
7. Schooling Before and After the Pandemic
8. Income Status of Individual Households

### Score for future research:

The research conducted lays the groundwork for several promising avenues for future research and continued exploration. The data collected in this survey, combined with its comprehensive nature, opens up a wealth of opportunities for deeper investigations and policy-oriented studies. Here are several key areas with significant scope for future research:

1. **Longitudinal Studies:** Conducting longitudinal studies to track the changes and developments in these regions over an extended period is essential. Monitoring how the socio-economic and infrastructural conditions evolve post-pandemic can provide insights into the effectiveness of interventions and the resilience of communities.
2. **Impact of Policy Interventions:** Evaluating the impact of specific government policies and development programs on the well-being and livelihoods of residents in these regions is crucial. Researchers can assess whether targeted policies have led to measurable improvements in access to essential services, income levels, and overall quality of life.
3. **Educational Outcomes:** Investigating the long-term effects of the pandemic on education in these regions is vital. Future research can delve deeper into the factors influencing school attendance, dropout rates, and the quality of education, as well as explore innovative approaches to improving educational outcomes.
4. **Livelihood Diversification:** Exploring strategies for diversifying livelihoods and reducing dependency on single income sources in these regions is essential for long-term sustainability. Research can identify income-generating opportunities and interventions that promote economic resilience.
5. **Social and Cultural Dynamics:** Understanding the social and cultural dynamics within these regions can be a rich area for research. Exploring issues related to social cohesion, cultural heritage, and community empowerment can provide insights into the fabric of these communities.
6. **Intervention Evaluation:** Evaluating the effectiveness of interventions and programs initiated as a result of this survey is critical. Future research can assess whether the recommended policy changes and development initiatives have led to tangible improvements in the lives of the residents.
7. **Health and Pandemic Preparedness:** Given the pandemic context, research on health systems' resilience and preparedness for future health crises is vital. Analysing lessons from the COVID-19 response can inform better preparedness strategies.

### Limitations of the study:

Every research study has its limitations, and it's important to acknowledge these constraints to provide context for the findings and conclusions. In the research conducted in the backward regions of India during the COVID-19 pandemic, several limitations should be recognized:

1. **Sampling Bias:** The survey was conducted in specific backward regions, and the selection of villages and blocks may not represent the entire diversity of conditions in all such regions. This sampling bias could affect the generalizability of the findings to other similar regions in India.

2. **Data Collection Challenges:** Gathering primary data from rural and remote areas can be challenging. Issues such as language barriers, cultural differences, and the potential reluctance of participants to share information might have impacted the data quality.

3. **Temporal Limitations:** The study's focus on data collected during the COVID-19 pandemic means that the findings are time-sensitive and may not reflect the long-term conditions in these regions. The pandemic introduced unique challenges that might not persist in the post-pandemic era.

4. **Limited Historical Data:** The research relies on secondary data from Census 2011 as a historical reference point. The absence of more recent historical data limits the ability to track long-term trends accurately.

### Conclusion:

In summary, this research conducted in the backward regions of India during the COVID-19 pandemic has revealed a complex tapestry of challenges and opportunities. It underscores the persistent disparities in infrastructure, education, healthcare, and income sources across these marginalised communities. The study highlights the pivotal role of community members, various organisations, and the resilience of individuals working outside the villages in sustaining livelihoods and fostering local development.

This research serves as a clarion call to policymakers and stakeholders to address these disparities comprehensively. Targeted interventions are essential to bridge the infrastructural gaps, improve access to essential services, and enhance the region's overall resilience. Moreover, the diverse demographic composition, both in terms of religion and caste, underscores the importance of inclusive development strategies that account for the unique needs and aspirations of every community.

Ultimately, this study not only sheds light on the challenges but also illuminates the path forward. It provides a foundation for evidence-based policymaking, offering a roadmap towards a more equitable and prosperous future for the residents of these backward regions. The insights gained from this research pave the way for continued exploration, collaboration, and positive change in these communities.

### Questionnaire:

#### Q1. Informant details

Name of informant	Who is the person? 1. Other PRI members 2. Sarpanch 3. Gram sevak 4. Anganwadi worker/helper 5. ASHA 95. Other	Phone number	Gender 1. M 2. F	Educational level No Formal Education, 1-12 <sup>th</sup> grade Undergraduate/postgraduate	Age (Years)	Caste (category) 1. ST/Adivasi 2. SC (Dalit) 3. OBC 4. Gen 99 Don't know)

**Q2.** Social Category of the Sarpanch (If Sarpanch Covered above, then fill with the above information)

- 1. ST
- 2. General
- 3. SC
- 4. OBC
- 99. Don't know

**Q3.** Gender of the Sarpanch (If Sarpanch Covered above, then fill with the above information)

- 1. Male 2. Female 95. Others **Q4.** Number of hamlets in the village \_\_\_\_\_ **Q5.** Name and details of the hamlets.

**Q6.** Total number of households in the village: \_\_\_\_\_

**Q7.** What are the main livelihoods of the village?

[Note: ask what kind of work households in the village are usually engaged in and write it in the text box]

**Q8.** Does any NGO work here?

- 1. Yes 2. No 99. Don't Know

**Q9.** If yes, names of NGOs/Organisations

**Q10.** What is the main local unit of land used in the village?

**Q11.** What is the conversion rate of the particular unit to acre:

- 1. How much is one acre in the local unit:
- 2. \_\_\_\_\_ <local unit>

**Q12.** Type Land Holding Pattern

	Landless	Marginal (less than 2.5 acres/ less than 1 hectare)	Small (2.5 to 5) Acre/ 1-2 hectare	Semi Medium (5 to 10 acre)/ 2-4 hectare	Medium (10 to 25 acre)/ 4-10 hectare	Large (More than 25 acres)/ 10 hectare and above
absolute number (# households)						

**Q13.** Is there a significant amount of the following (at least 10%) part of the land area division of the village?  
(Yes/ No/ Don't know)

Cultivable Waste Land
Waste/ barren land (non cultivable)
Water bodies
Common Property Resource (Grazing land)
Forest land (note: do not include horticulture land or reserved forests)
Industrial Land

**Q14.** How has the quality of soil (agricultural land) changed over the last 10 years?

Sources	Is this a significant source used by households (at least 10% households rely on this) – Yes/ No	Is this the major source
1. Private tubewell		
2. Government tubewell		
3. Tank/Pond		
4. River Canal		
5. Rainfed		
6. Open Well		
7. Other		

1. Worse
  2. Remained the same
  3. Better
99. Don't know

**Q15.** What are the different sources of irrigation in the village?

**Q16.** What are the 3-4 main crops grown in the village around the year (during Kharif)? **Q17.** What are the 3-4

main crops grown in the village around the year (during Rabi)? **Q18.** What are the 3-4 main crops grown in the village around the year (during Zaid)? **Q19.** Predominantly (main source) where do farmers sell their produce  
APMC

1. Local traders
2. Contract farming [selling to a corporate]
3. FPO [Farmer Producer Organizations] 95 Other \_\_

99 Don't know

**Q20.** How far (in km) are the following facilities from the village:(If the facility is available in the village, write "0")

1. Anganwadi centres \_\_\_\_\_
2. Primary schools \_\_\_\_\_
3. Secondary school (up to 10<sup>th</sup> standard) \_\_\_\_\_
4. Higher Secondary School (12<sup>th</sup> standard) \_\_\_\_\_
5. Degree College \_\_\_\_\_
6. Health sub-centre \_\_\_\_\_
7. Primary health centre (PHC) \_\_\_\_\_
8. Community Health Centre (CHC) \_\_\_\_\_
9. Sub-district/ Sub-divisional hospital \_\_\_\_\_
10. Veterinary Centre/ Livestock centre \_\_\_\_\_
11. Highway (State or National) \_\_\_\_\_
12. Customer Service Centre of Digital India Centre (CSC)/ \_\_\_\_\_
13. Banking Service Correspondent \_\_\_\_\_
14. PDS shop/outlet \_\_\_\_\_
15. Computer shop for printing/photocopy/ browsing \_\_\_\_\_
16. Mobile signal availability of any service provider \_\_\_\_\_
17. Designated Bus stop \_\_\_\_\_
18. Nearest town \_\_\_\_\_
19. Nearest village market \_\_\_\_\_
20. Nearest town market \_\_\_\_\_
21. APMC \_\_\_\_\_
22. Post office \_\_\_\_\_

**Q21.** If you had to travel to the nearest town by public transport, how frequent is the direct bus from the bus-stop closest to the town?

1. < 1hour
2. 1-3 hours
3. 3-6 hours
4. Once a day
5. None



95. Other

**Q22.** Which mode is more often used for banks, hospitals, going to the town?

1. Public transport
2. Own transport
3. Others (specify)

**Q23.** How much time and money does a round trip to the following take by <public transport/shared jeep >(not including time at the Block/PDS/PO/Bank itself)

1. Block Headquarters
2. Town (nearest)
3. Bank (nearest)
4. PHC (nearest)
5. PDS shop (nearest)
6. Post Office (nearest)

**Q24.** On average, how many hours in the day does electricity come into the village usually?

1. \_\_\_\_\_ hours, \_ minutes
2. Do all the hamlets have electricity?
  1. Yes
  0. No

**Q25.** Government functionaries in the village / regularly visiting village

	Regularity of visit: 1. stays in the village 2. last week 3. last month 4. less that 3 months back 5. 3-6 months back 6. >6 months back 7. Not available/ Vacancy  99. Don't know
Gram Sachiv	
Gram Sevak	
Talathi /Patwari/ Amina	
Krushi Sahayyak	

ASHA	
Anganwadi worker	
Anagnwadi sevika	
ANM	
Gram Rozgar Sevak	
Vet Doctor / Live Stock Supervisor	
95 Other – specify	

**Q26.** Local wage rate (Rs./ day) for unskilled agricultural work during the year? [For the surveyor: you can read these options out, and take entries for each]

1. Men (Rs.)
2. Women (Rs.)

**Q27.** Local wage rate (Rs./ day) for unskilled construction work during the year? [For the surveyor: you can read these options out, and take entries for each]

1. Men (Rs.)
2. Women (Rs.)

**Q28.** Does the village have in its vicinity forest land traditionally used by villagers?

**Q29.** If Yes, what are the uses (multiple choices apply)

1. Grazing land
2. Collection of minor forest produce (e.g. tendu, bamboo, honey, firewood, fodder, medicinal plants, etc.)
3. Water bodies using for fishing
4. Sacred groves of traditional deities
5. Any other purpose
6. No such forest land

99. Don't know

**Q30.** If yes (i.e. village has forest land), has the Gram Sabha received community forest rights (CFR) title on the above mentioned traditional forest land under the Forest Rights Act?

1. Yes, received title
2. Claim submitted awaiting district committee's approval
3. Claim rejected by district committee
4. Gram sabha did not submit claim
5. Gram sabha did not prepare claim
6. Not aware of Forest Rights Act

7. Aware of Forest Rights, but not aware if any title has been received or is in process

99. Don't know

**Q31.** If yes, has anyone applied for individual forest rights (IFR) title on their forest land under the Forest Rights Act?

1. Yes 2. No 99. Don't Know

**Q32.** If yes, how many households:

	Applied to Gram Sabha	Approved by Gram Sabha	Approved by District Committee	Rejected by District Committee
How many?				

**Q33.** If forest under forest rights act - Has the Gram Sabha applied for Community Forest Rights (CFR)?

1. Yes, received
  2. Yes, in process
  3. Yes, rejected
  4. No
99. Don't know

**Q34.** Is the Gram Sabha under the Panchayat Extension to Schedule Areas (PESA) act?

- 1.Yes 2.No 99.Don't Know

**Q35.** Are there any of the following in the village? (Yes/No/99 Don't know for each option)

1. SHGs promoted co opted by NRLM
2. SHGs (other than NRLM promoted SHGs)
3. Village Health Sanitation & Nutrition Committee
4. School Development and Monitoring Committee
5. Producer Groups
6. Farmer Producer Organisation (FPO)
7. Milk Cooperatives
8. Caste association
9. Development group/NGO
10. Village Rights Committee
11. Yuva Kendra/ Youth Club
12. Others (specify)

**Q36.** For the surveyor: If there is anything else you want to add related to the survey, please do so. This can be any additional information or observations that were not captured in the options.

