



# INFRASTRUCTURE STATUS IN RURAL AREAS, A CASE STUDY OF BHUTLA, SARTINGLE, NALTHI VILLAGES OF BHADERWAH

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## INTRODUCTION

The importance of infrastructure for economic growth and development in rural area can hardly be overemphasized in a developing economy like India. With poor rural infrastructure, even a marginal improvement in its quantity and quality could significantly improve economic development and human well-being. Improving basic infrastructure, such as roads, transport, electricity, Telecommunications, housing, health, water and sanitation, is essential for development and well-being of the rural population. The development of rural infrastructure could promote economic growth, improve the standard of living of the population and reduce the incidence of poverty by generating both farm and non-farm employment and earning opportunities, increasing productivity, providing access to basic goods and services and improving the health and physical condition of people (NCAER, 2007). Empirical studies also report a strong relationship between infrastructure, economic growth, rural development and poverty reduction.

In spite of the crucial importance of infrastructure, significant deficiencies have persisted in rural infrastructure across Indian states. The quantity and quality of infrastructure facilities are substantially lower in rural areas than in urban areas. A relatively low density of population, low household incomes and the absence of scale economies are considered to be challenges to the expansion of basic infrastructure facilities in rural areas. Infrastructure is one of the five inherent pillars of Aatma Nirbhar Bharat. In a country like India where more than 60 percent of its population still lives in its countryside, the development of its rural infrastructure becomes absolutely vital for rapid growth. Today, rural India's contribution to our national income is estimated to be more than 45 percent and according to various reports, by the year 2050 more than half of our population will still be living in rural areas. A robust rural infrastructure through its systemic linkage effects – both backward and forward, is capable of facilitating better avenues of farm and non-farm product marketing and there by adequately remunerating the activities of farmers, manufacturers and services providers in a rural set-up. Rural infrastructure has a two-fold impact in terms of boosting demand for goods and services in rural areas and also facilitating the marketing of rural produce. A bolstered rural infrastructure contributes to rural transformation through its multiplier effect. Rural infrastructure contributes positively to inclusive growth as well. The creation of sustainable rural infrastructure will help address issues of poverty, income and livelihood insecurities in rural areas. Today, around 69 percent of India's population (88 crores) is rural and resides in more than 6.45 lakh villages. Mahatma Gandhi had rightly underscored the importance of adopting a bottom-up approach for the country's socio-economic development and his statement "the real India lives in her villages" is often quoted in different development fora. Rural infrastructure ensures economic development through reduced cost of production and logistics, increased productivity, improved economies of scale, enhanced employment and improvement in public and private investments in rural farm and non-farm activities. Infrastructure status is a designation given to a sector by the department of economic affairs in the ministry of finance. Infrastructure is the physical systems that support a region's economy and development. Infrastructure is vital for economic growth, industrial development, human development, and achieving the Sustainable Development Goals (SDGs). Infrastructure development in rural areas encompasses various aspects to improve the standard of living and facilitate economic growth.

## OBJECTIVES

1 To examine the overall infrastructure and development of selected area.

## DATA SOURCE AND METHODOLOGY

To achieve the objectives, both primary and secondary data is used for this study. The study adapts a questionnaire as instrument for data collection. The secondary data has been collected through census, government of India 2011 for the entire three villages. The surveyed questionnaire has been tabulated and proper analysis has been done. Various tables and graphs are also constructed. The percentage of absolute number has been also calculated through the percentage method using following given formula.

$PI = R/TR * 100$





**RESULT AND DISCUSSION**

Infrastructure status in three villages namely Bhutla, Nalthi and Sartingle in Bhaderwah town of Doda district has been taken to access the various parameters used are:

- 1 Road connectivity and transportation facilities.
- 2 Toilet facilities.
- 3 Medical facilities.
- 4 School facilities.
- 5 Housing facilities

**Road Connectivity and Transportation Facilities**

The function of a road network is to facilitate movement from one area to another. As such, it has an important role to play in the urban environment to facilitate mobility. It furthermore determines the accessibility of an area. Transport networks are defined as network infrastructure that provides connectivity and bandwidth for customer services. These roads have helped boost rural income opened up new livelihood opportunities and make it easier to access hospitals, markets and schools.

**Table No.1.1 :Shows Prevalence of Road connectivity and transport facilities.**

| S.No. | Road connectivity and transport facilities                                                   | Village sartingle (TotalNo.ofHouseholds-15) | Village Bhutla(TotalNo.ofHouseholds-15) | Village nalthi (TotalNo.ofHouseholds-15) |
|-------|----------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------|------------------------------------------|
| 1     | The Respondent who have Well maintained road connectivity from village to the nearest town.. | 100%                                        | 100%                                    | 100%                                     |

The above Table shows that village Sartingle, Bhutla and Nalthi have well maintained road connectivity from village to nearest town.

**Toilet facilities**

Proper sanitation facilities for example toilets and latrines promote health because they allow people to dispose their waste appropriately preventing contamination of the environment and reducing risk to themselves and neighbours.

**Table No.1.2 :Shows proportion of Households with access to Toilet Facility**

| S.No. | KindofToilet Facility                    | Village Sartingle (TotalNo.ofHouseholds-15) | VillageBhutla (TotalNo.ofHouseholds-15) | Village Nalthi (TotalNo.ofHouseholds-15) |
|-------|------------------------------------------|---------------------------------------------|-----------------------------------------|------------------------------------------|
| 1     | TheRespondentwhohaveOpen FieldDefecation | 0                                           | 0                                       | 0                                        |
| 2     | TheRespondentwhohaveFlushtypetoilet      | 100%                                        | 53%                                     | 83.3%                                    |
| 3     | TheRespondentwho have septic tank        | 0                                           | 0                                       | 0                                        |

An assessment of the above table shows that village Bhutla have lowest number of flush type Toilet facilities 53% people have flush type toilet. In village Nalthi 16.6% people are not having toilet facility where as village Sartingle are concerned all the people in the area are having toilet facility at their place.

**Medical Facilities**

Medical facilities are locations where healthcare is provided, ranging from small clinics to large hospitals, and include various types such as hospitals, community health centers, nursing homes, urgent care centers, and rehabilitation centers.



**TableNo.1.3:Shows rating the functioning of Health Care System**

| S.No. | The way Health care system currently works? | Village sartingle (TotalNo.ofHouse holds-15) | Village bhutla (TotalNo.ofHouse holds-15) | Village nalthi (TotalNo.ofHouse holds-12) |
|-------|---------------------------------------------|----------------------------------------------|-------------------------------------------|-------------------------------------------|
| 1     | Good                                        | 55.5%                                        | 33.3%                                     | 16.6%                                     |
| 2     | Fair                                        | 27.7%                                        | 8.33%                                     | 18.33%                                    |
| 3     | Poor                                        | 11.11%                                       | 41.6%                                     | 58.33%                                    |
| 4     | Not sure                                    | 5.5%                                         | 8.3%                                      | 6.6%                                      |

From the above table we come to know about the way health care system currently works in these villages. Respondents of village Nalthi is having worst health care system as they categorised their health care system poor by 58.33% followed by village Bhutla 41.6% In village sartingle 55.5% respondents said that they have good health care system.

**School Facilities**

Schools play a crucial role in a child’s life and education. They provide a structured environment that fosters Academic, social, emotional, physical, and career development. Schools are responsible for preparing the next generation leaders, innovators, and thinkers who will shape the future of our society. School basic facilities are well-equipped classrooms with comfortable seating and proper lighting. Adequate library and media centre with a wide range of educational resources Science and computer Laboratories.

**TableNo.1.4:Shows respondents rating their village school facilities..**

| S.No. | School Facilities                                          | Village Sartingle (TotalNo.ofHouse holds-15) | Village Bhutla (TotalNo.ofHouse holds-12) | VillageNalthi (TotalNo.ofHouse holds-12) |
|-------|------------------------------------------------------------|----------------------------------------------|-------------------------------------------|------------------------------------------|
| 1     | How many schools are there in the village?                 | 3                                            | 3                                         | 1                                        |
| 2     | Are the school buildings in good condition?                | 93%                                          | 66%                                       | 40%                                      |
| 3     | Do classrooms have proper seating arrangements?            | 93%                                          | 86%                                       | 20%                                      |
| 4     | Are there separate schools for boys and girls?             | 0%                                           | 0%                                        | 0%                                       |
| 5     | Is there sufficient lighting and ventilation in classroom? | 93%                                          | 66%                                       | 40%                                      |

There are 3 schools in village sartingle 3 in Bhutla and 1 in Nalthi. In village Sartingle (93%), Bhutla (66%) And village Nalthi (40%) schools buildings are in good condition. No separate schools for girls and boys are there in village sartingle, bhutla and nalthi. Schools in sartingle were good in condition rather than the schools in bhutla and schools in bhutla was Better than the schools in nalthi.

**Housing Facilities**

Housing facilities encompass any dwelling or structure intended for habitation, including houses, apartments, rooming houses, and other forms of residential accommodation. There are three types of houses:

1. Pucca House: Pucca house refers to a permanent and solidly constructed dwelling made of durable materials. like brick, concrete, cement, or steel.
2. Semi- pucca House: refers to a dwelling built with a mix of sturdy and less durable materials, typically featuring walls made of solid materials like brick, stone, or cement, but with a roof constructed from less permanent materials like thatch or straw.
3. Kutcha Houses: These are temporary or less permanent structures built with materials like mud, wood, straw, or bamboo.

**Table No: 1.5 House Types**

| House Types | Sartingle | Buttla | Nalthi |
|-------------|-----------|--------|--------|
| Pucca       | 87.5%     | 77%    | 84%    |
| Semi Pucca  | 12.5%     | 15%    | 10%    |
| Kutcha      | 0%        | 8%     | 6%     |



Observed from the above table that maximum pucca houses are found in sartingle 87.5% and followed by Nalthi 84% and Bhutlla 77% and maximum kutcha houses are found in Bhutla 8%.

## **SUGGESTIONS AND DISCUSSION**

Improving road connectivity and transportation in villages is crucial for economic development, access to education, healthcare and overall quality of life. Here are some practical suggestions for study area. All weather roads, construct and maintain all weather roads to ensure connectivity throughout the year specially in winter season because villages of Bhaderwah specially Bhutla, Nalthi and Sartingle are disconnected from main town seri bazaar due to snowfall and sliparry road conditions in the month of January and Febuary.

Rural road development programs utilize government schemes like PMGSY ( Pradhan Mantri Gram Sadak Yojna) to build and upgrade roads in the far-flung areas of Bhutla, Nalthi and sartingle and develop a master plan linking villages with near by towns, markets and essential service centers.

Improving toilet facilities in villages is essential for sanitation, health, and overall well- being. Here are some practical suggestions for study are:Pit latrines simple, low cost and effective for rural areas. Can be improved with ventilation (vip latrines) to reduce odors. Septic tank toilets because during survey no respondent have septic tank toilet. Promote government sanitation programs like Swachh bharat mission and collaborate with NGOs to fund and construct toilets. Educate villagers on the importance of hygiene and regular toilet maintenance.

Improving medical facilities in villages of Bhaderwah require a multi faceted approach to ensure accessibility, affordability and quality healthcare. Established well equipped primary health centers and sub- centers. Upgrade existing rural hospital with better medical equipment. Provide ambulance and emergency transport services. Train local health workers (Asha workers ANMs and NHRMs) for basic healthcare service. Organize mobile medical units to reach remote areas. Conduct regular health camps and vaccination drives. Educate villagers about hygiene, nutrition and diseases prevention. Promote maternal and child healthcare programs.

Improving school facilities in villages require a mix of infrastructure development , technology integration, and community involment. Here are some suggestions:

Infrastructure and basic amenities

Better classrooms construct or renovate classrooms with proper ventilation, lighting and seating. Clean drinking water install water purifiers and ensure a continuous supply of clean dinking water.

Sanitation facilities Build separate hygiene toilets for boys and girls. Playground and sports equipment provide open spaces and basic sports gear to encourage physical activities. Introduce tablets or smartboards for interactive learning. Ensure nutritious meals to encourage attendance and better health. Distribute free uniforms, books and stationary to underprivileged students.

Improving housing facilities requires amix of affordability, sustainability and community driven solutions here are some key suggestions:

Use locally available materials eg.9 Wood, stone, sand, mud bricks) to reduce cost. Promote low cost construction techniques such as prefabricated homes and modular housing. Encourage government subsidies and microfinance options for rural housing. Strengthen PMAY (Pradhan mantri Awas yojna) or similar schemes for affordable housing.

## **CONCLUSION**

The study of Bhulta, Sartingle, and Nalthi villages in the Bhaderwah region reveals a mixed picture of rural infrastructure development. The main occupation of respondents is agriculture. In case of health status pattern is more or less similar intense problem is noticed specially for the village Nalthi where condition is worst. Comparatively village sartingle seemed to be stable followed by village Bhulta in terms of infrastructure facilities. While certain basic amenities such as road connectivity and primary education facilities are present, several critical gaps remain. Inadequate healthcare access, poor sanitation, no septic tank facility, no seprate school for boys and girls and lack of digital connectivity continue to hinder socio-economic progress in these areas. The topographical challenges and administrative limitations have contributed to the slow pace of infrastructure development.

Despite the government's efforts through rural development schemes, the outcomes on the ground are uneven, highlighting the need for more targeted and context-specific interventions. The study underscores the importance of not only increasing investments but also ensuring efficient implementation and monitoring mechanisms. The



overall availability of infrastructure is poor for these villages and with lack of awareness brought them in a state of poor infrastructure attainment this finally resulted in poor infrastructure status of the villages.

### **SUGGESTIONS**

1. **Improved Road Connectivity:** There is a need to strengthen and maintain road networks to ensure all-weather connectivity, particularly during the winter months when many areas become inaccessible.
2. **Healthcare Access:** Establishment of mobile health units and upgrading of existing primary health centers with trained staff and adequate resources is essential.
3. **Water and Sanitation:** Provision of clean drinking water and construction of household and community toilets should be prioritized under schemes like Jal Jeevan Mission and Swachh Bharat Abhiyan.
4. **Digital Infrastructure:** Expanding internet connectivity can enhance education, governance, and access to information. Public Wi-Fi hotspots or community centers could be introduced.
5. **Education Facilities:** Upgrading school infrastructure, hiring qualified teachers, and providing learning aids will improve educational outcomes in rural schools.
6. **Community Participation:** Local community involvement in planning and monitoring infrastructure projects can increase accountability and ensure the relevance of projects to local needs.
7. **Tailored Policy Approaches:** Development programs should consider the specific geographic, cultural, and socio-economic characteristics of each village to be truly effective.