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HOUSING CONDITION OF BAGDA DORAN VILLAGE

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Abstract

Housing is a fundamental indicator of socio-economic development and plays a crucial role in improving the quality of life, public health, and sustainable rural development. The present study examines the housing conditions and availability of basic amenities in Bagda Doran Village, Dehradun, Uttarakhand, a rural settlement undergoing rapid transformation due to urban expansion. The research aims to assess the quality of housing, access to essential infrastructure, and the major challenges affecting the village's residential environment. Primary data were collected through household surveys, structured questionnaires, field observations, interviews, and photographic documentation, while secondary information was obtained from government reports and published literature. The analysis focuses on housing type, construction materials, ownership pattern, drinking water, sanitation, electricity, drainage, waste management, road connectivity, and the impact of government housing schemes. The findings reveal that the majority of households reside in permanent (pucca) houses with improved access to electricity, sanitation, and drinking water, reflecting the positive influence of urbanisation, rising income levels, and government initiatives such as Pradhan Mantri Awas Yojana–Gramin (PMAY-G). However, challenges including inadequate drainage, irregular water supply, limited solid waste management, overcrowding in some households, and insufficient awareness of housing schemes continue to affect sustainable development. The study concludes that strengthening rural infrastructure, promoting community participation, improving the implementation of housing programmes, and adopting environmentally sustainable housing practices are essential for enhancing living conditions and achieving balanced rural development in Bagda Doran Village. The findings provide useful insights for planners, policymakers, and researchers working on rural housing and infrastructure development.

Keywords

Rural Housing; Housing Conditions; Sustainable Development; Basic Amenities; Urbanisation; Bagda Doran Village; Dehradun; Uttarakhand; PMAY-G; Rural Infrastructure; Housing Quality; Socio-economic Development; Sanitation; Drinking Water; Rural Development.

Introduction

1. Concept of Housing

Housing is one of the basic human needs and is considered an important indicator of socio-economic development. It provides protection, security, privacy, and a healthy living environment. A good house improves the physical, mental, and social well-being of individuals and contributes to overall quality of life.



2. Importance of Housing

Housing plays a vital role in improving living standards and promoting sustainable development. Adequate housing with essential amenities such as drinking water, sanitation, electricity, and drainage enhances health conditions, educational opportunities, economic productivity, and social welfare. Therefore, housing is regarded as a key component of rural development.

3. Rural Housing Scenario in India

Rural housing in India has improved considerably due to economic growth, urbanisation, and government initiatives such as the Pradhan Mantri Awas Yojana–Gramin (PMAY-G). However, many villages still face problems related to poor housing quality, inadequate sanitation, insufficient drainage, irregular water supply, and limited infrastructure. These challenges continue to affect the quality of life in rural areas.

4. Housing and Sustainable Development

Sustainable housing promotes environmentally friendly construction, efficient use of natural resources, and disaster-resilient buildings. It also ensures access to clean water, sanitation, waste management, and energy-efficient infrastructure. Sustainable housing contributes to the achievement of several Sustainable Development Goals (SDGs), particularly SDG 11, which focuses on sustainable cities and communities.

5. Study Area: Bagda Doran Village

Bagda Doran Village is located in Dehradun district of Uttarakhand and has experienced significant changes due to rapid urban expansion. The village represents a transitional rural settlement where traditional housing patterns are gradually being replaced by modern residential structures. These changes make the village an appropriate area for studying rural housing conditions and infrastructure development.

6. Need for the Study

Although government programmes have improved rural housing, disparities still exist in the availability and quality of basic amenities. Many households continue to face challenges related to sanitation, drainage, waste management, and access to public services. Therefore, a detailed assessment of housing conditions in Bagda Doran Village is necessary to identify existing problems and suggest appropriate measures for sustainable rural development.

7. Significance of the Study

The study provides valuable information regarding the present housing conditions and basic amenities available in Bagda Doran Village. The findings can assist planners, policymakers, local authorities, and researchers in formulating effective housing policies, improving rural infrastructure, and promoting sustainable development. It also contributes to the geographical understanding of rural housing transformation in rapidly urbanising regions.

8. Scope of the Study

The study focuses on various aspects of housing, including housing type, construction materials, ownership pattern, drinking water facilities, sanitation, electricity, drainage, waste management, and housing-related challenges. It also examines the influence of government housing schemes and urbanisation on the housing conditions of the village.

9. Aim of the Study

The primary aim of this research is to assess the housing conditions and availability of basic amenities in Bagda Doran Village and to suggest suitable measures for improving the quality of rural housing and living conditions.

Review of Literature

Adequate housing contributes to better health, education, and overall well-being.

1. Concept of Rural Housing

Rural housing is an important component of socio-economic development and reflects the living standards of a community. According to the Census of India (2011), housing quality is determined by construction materials, occupancy status, availability of basic amenities, and access to essential infrastructure.

2. Housing and Rural Development

Several researchers have highlighted that housing is closely associated with rural development. Improved housing conditions not only provide physical shelter but also enhance social security, economic productivity, and environmental sustainability. The availability of electricity, drinking water, sanitation, and drainage significantly improves the quality of rural life.

3. Impact of Urbanisation on Rural Housing

Rapid urban expansion has transformed the housing patterns of villages located near urban centres. Studies indicate that urbanisation increases the demand for permanent houses, improves access to infrastructure, and changes

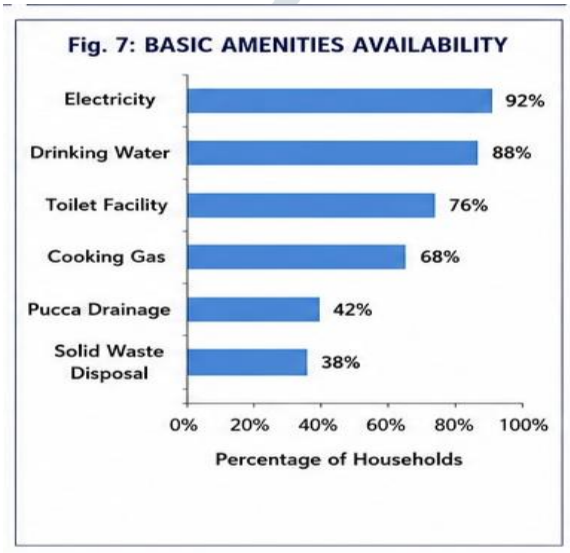
traditional construction practices. However, it also creates challenges such as land-use change, environmental degradation, and pressure on public services.

4. Government Initiatives for Rural Housing

The Government of India has introduced several housing schemes, including Pradhan Mantri Awas Yojana–Gramin (PMAY-G), to provide affordable and durable housing for rural households. These programmes have improved housing quality in many villages, although disparities remain due to financial constraints, implementation delays, and lack of awareness among beneficiaries.

5. Basic Amenities and Housing Quality

Research has consistently shown that the quality of housing depends not only on the structure of the house but also on the availability of basic amenities such as safe drinking water, sanitation, electricity, drainage, waste management, and clean cooking fuel. Inadequate access to these services adversely affects public health and living standards.





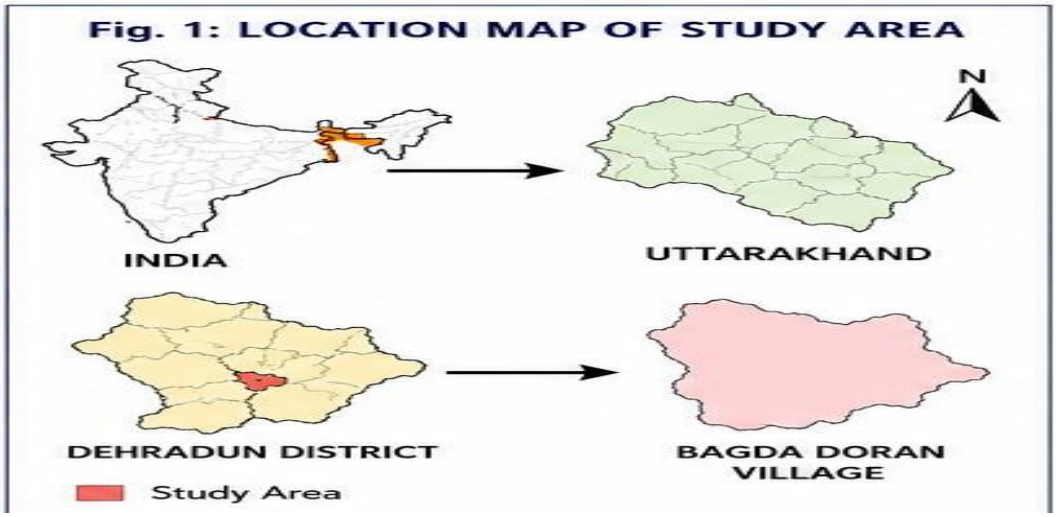
6. Research Gap

Most existing studies focus on rural housing at the national or state level, whereas village-level investigations remain limited. There is insufficient geographical research on the housing conditions of Bagda Doran Village, Dehradun. Therefore, the present study attempts to fill this gap by providing a detailed assessment of housing conditions, infrastructure, and associated challenges at the village level.

Study Area

1. Location

Bagda Doran Village is located in Dehradun District, Uttarakhand. The village lies within the Doon Valley and falls under the administrative jurisdiction of the district. Its proximity to Dehradun city has influenced its physical growth and infrastructure development.



2. Geographical Setting

The village is situated in a region characterised by fertile alluvial plains and a subtropical climate. The terrain is generally level, making it suitable for residential development and agricultural activities. The surrounding natural environment also influences settlement patterns and land use.

3. Climate

Bagda Doran experiences a subtropical climate with three distinct seasons: summer, monsoon, and winter. Moderate rainfall during the monsoon supports agriculture, while seasonal climatic variations influence the selection of construction materials and housing designs.

4. Population Characteristics

The village consists of households with diverse socio-economic backgrounds. Population growth and changing family structures have increased the demand for better housing and improved civic amenities. The settlement pattern reflects both traditional rural characteristics and emerging urban influences.

5. Economic Activities

Agriculture remains an important occupation, although many residents are also engaged in government services, private employment, trade, and small businesses due to the village's proximity to Dehradun city. This occupational diversity has contributed to improvements in income levels and housing conditions.

6. Housing Characteristics

The village comprises a mix of pucca, semi-pucca, and a few kutcha houses. Modern construction materials such as bricks, cement, reinforced concrete, and steel are increasingly replacing traditional materials. However, variations in housing quality still exist due to differences in income and access to resources.





7.

Information is collected using a structured household questionnaire, interview schedules, field observations, and photographic documentation. These tools help in collecting both quantitative and qualitative data related to housing characteristics and infrastructure.

6. Parameters of the Study

The study analyses various indicators, including housing type, construction materials, ownership status, number of rooms, drinking water facilities, sanitation, electricity, drainage, waste management, cooking fuel, and access to government housing schemes.

7. Data Analysis

The collected data are classified, tabulated, and analysed using statistical techniques such as percentages, averages, and frequency distribution. Tables, graphs, and charts are used to present the findings clearly, while geographical interpretation helps explain the spatial characteristics of housing conditions.

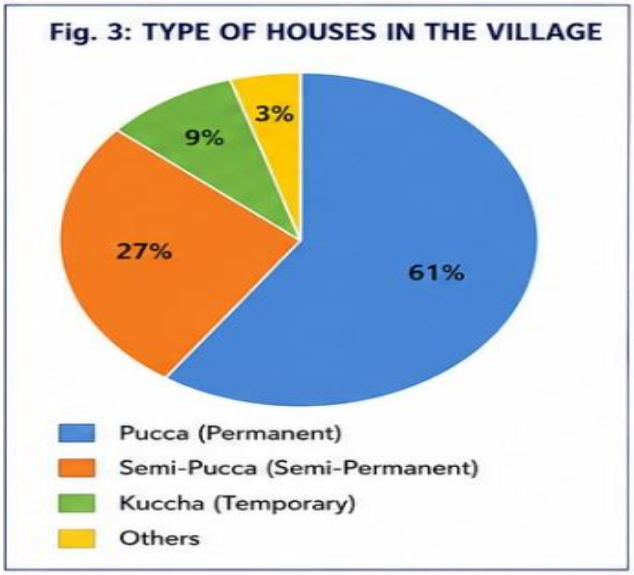
8. Scope of the Methodology

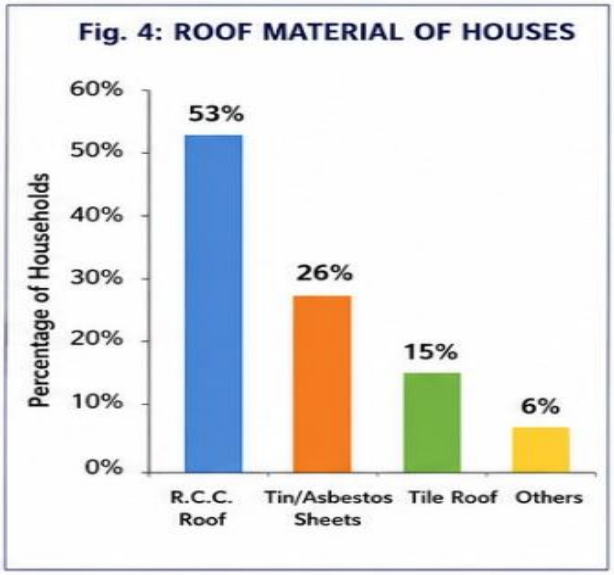
The methodology provides a systematic framework for evaluating housing conditions and identifying factors affecting rural housing development. It also supports the formulation of practical recommendations for improving infrastructure and enhancing the quality of life in Bagda Doran Village.

Results and Discussion

1. Housing Type

The study reveals that the majority of households in Bagda Doran Village reside in pucca houses, while a smaller proportion live in semi-pucca houses. Only a limited number of households occupy kutcha houses. The increasing proportion of pucca houses reflects the positive impact of economic development, urban influence, and government housing schemes on rural housing conditions.





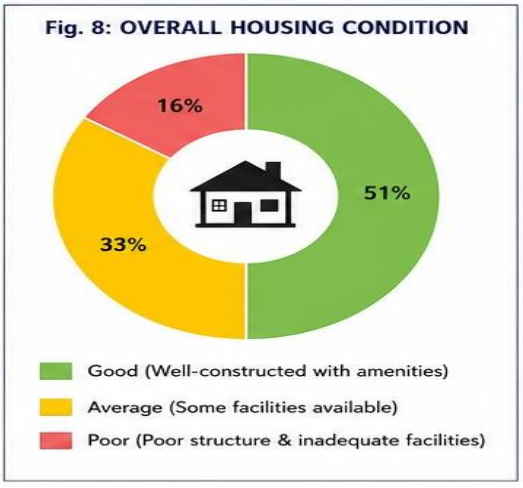
2. Construction Materials

Most residential buildings are constructed using bricks, cement, reinforced concrete (RCC), steel, and concrete flooring, indicating improved structural quality and durability. Traditional materials such as mud walls, thatched roofs, and bamboo are rarely used. This transition demonstrates the villagers' preference for permanent and disaster-resistant housing.

3. Ownership Pattern

The study indicates that the majority of households live in self-owned houses, while only a small proportion occupy rented or leased accommodations. House ownership provides social security, financial stability, and encourages investment in housing improvement.

4. Number of Rooms and Housing Space





Most households have two to four rooms, which are generally adequate for small and medium-sized families. However, larger families experience overcrowding due to limited living space. Adequate room availability contributes to better privacy, hygiene, and overall living conditions.

5. Drinking Water Supply

Most households have access to drinking water through tap connections, hand pumps, and borewells. Although water availability has improved significantly, seasonal shortages and occasional supply interruptions continue to affect some households. Ensuring a continuous supply of safe drinking water remains an important development priority.

6. Electricity Availability

The study shows that electricity is available in almost all households. Access to electricity has improved household comfort, educational opportunities, communication, and economic activities. However, occasional power interruptions still affect daily life and productivity.

7. Sanitation Facilities

Most households have access to toilets due to government sanitation programmes. Nevertheless, differences remain in the quality of sanitation facilities and wastewater disposal systems. Proper sanitation has contributed to improved public health and reduced the incidence of water-borne diseases.

8. Drainage System

The drainage system is not uniformly developed throughout the village. While some residential areas have proper drainage facilities, others experience waterlogging during the rainy season due to inadequate maintenance and insufficient drainage infrastructure. Improved drainage is essential for maintaining environmental hygiene.

9. Solid Waste Management

The study indicates that solid waste management remains one of the major challenges in the village. Waste collection and scientific disposal systems are limited, leading to open dumping in certain locations. Improved waste management practices are necessary to reduce environmental pollution and health risks.

10. Road Connectivity and Infrastructure

Bagda Doran Village is connected by roads that provide access to nearby urban centres. Better transportation facilities have improved educational opportunities, healthcare access, and employment prospects. However, internal roads and drainage infrastructure require regular maintenance to ensure sustainable development.

11. Government Housing Schemes

Government initiatives, particularly Pradhan Mantri Awas Yojana–Gramin (PMAY-G), have contributed to the construction of permanent houses and improvement of housing quality. However, awareness regarding eligibility, application procedures, and timely financial assistance remains limited among some households.

12. Socio-economic Factors Influencing Housing

The quality of housing is strongly influenced by household income, occupation, education, and family size. Families with stable income and secure employment generally possess better-quality houses and greater access to basic amenities. In contrast, economically weaker households continue to face housing-related challenges.

13. Major Housing Problems

Despite noticeable improvements, several challenges continue to affect housing conditions in Bagda Doran Village:

Inadequate drainage facilities in some areas.

Irregular drinking water supply during certain seasons.

Limited scientific waste management.

Overcrowding in larger households.

Rising construction costs.

Lack of awareness regarding government housing schemes.

Environmental concerns associated with rapid urbanisation.

Addressing these issues is essential for improving rural housing quality and ensuring sustainable development.

14. Overall Discussion

The findings indicate that Bagda Doran Village has undergone significant improvements in housing quality and access to basic amenities due to urban expansion, rising income levels, and government welfare programmes. The dominance of pucca houses and widespread availability of electricity demonstrate positive progress in rural development. However, infrastructure-related challenges, particularly in sanitation, drainage, waste management, and water supply, continue to hinder the achievement of sustainable housing conditions. A coordinated approach involving government agencies, local institutions, and community participation is essential for strengthening rural infrastructure and enhancing the overall quality of life.
Suggestions

1. Improvement of Housing Quality

The government should encourage the construction of durable, disaster-resistant, and environmentally sustainable houses by providing financial assistance and technical guidance. Regular maintenance and renovation of old houses should also be promoted.

2. Strengthening Water Supply

A continuous and safe drinking water supply should be ensured by improving existing water distribution systems, maintaining pipelines, and promoting rainwater harvesting to reduce seasonal water shortages.

3. Enhancement of Sanitation Facilities

The availability and quality of sanitation facilities should be improved through the construction of household toilets, proper sewage disposal systems, and awareness programmes on hygiene and sanitation practices.

4. Development of Drainage Infrastructure

Proper drainage networks should be constructed and regularly maintained to prevent waterlogging, reduce mosquito breeding, and improve environmental sanitation during the monsoon season.

5. Scientific Solid Waste Management

A systematic waste collection, segregation, recycling, and disposal mechanism should be introduced. Community participation and awareness campaigns should be encouraged to maintain a clean and healthy environment.

6. Strengthening Government Housing Schemes

The effective implementation of government programmes such as Pradhan Mantri Awas Yojana–Gramin (PMAY-G) should be ensured. Awareness campaigns should be organised so that eligible households can access housing benefits without administrative delays.

7. Community Participation

Local residents should actively participate in village development activities through Gram Panchayats and community organisations. Public participation will improve the planning, implementation, and maintenance of housing and infrastructure projects.

8. Promotion of Sustainable Housing

The use of eco-friendly construction materials, energy-efficient building techniques, rainwater harvesting, solar energy, and green building practices should be encouraged to achieve long-term environmental sustainability.

Conclusion

Housing is one of the most important indicators of socio-economic development and significantly influences the quality of life in rural areas. The present study indicates that the housing conditions in Bagda Doran Village have improved considerably due to urbanisation, increasing income levels, and government housing programmes. The predominance of pucca houses and the availability of electricity reflect positive changes in the living standards of the residents.

Despite these improvements, several challenges remain, including inadequate drainage, limited solid waste management, irregular water supply in some areas, and gaps in sanitation infrastructure. These issues continue to affect environmental quality and public health. Addressing these challenges requires coordinated efforts by government agencies, local authorities, and the community.

Overall, sustainable housing development should focus not only on constructing permanent houses but also on providing adequate infrastructure and basic amenities. Effective implementation of housing schemes, community participation, and environmentally sustainable planning will contribute to improving the quality of life and achieving

balanced rural development in Bagda Doran Village. The findings of this study can also serve as a useful reference for researchers, planners, and policymakers working on rural housing and infrastructure development in similar regions.

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