

Demographic Study in Indore City – Affordable housing solutions in Indore city

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Abstract:

The Indore Light House Project has architectural weaknesses such as repetitive design, limited flexibility in room layouts, insufficient community spaces, and thermal discomfort due to hot climate conditions. The prefab construction system also creates challenges in future modifications and maintenance. These problems can be solved through climate-responsive architecture by providing larger balconies, proper cross ventilation, sun-shading devices, and green roofs. Community interaction can be improved by adding parks, courtyards, and recreational spaces. Flexible interior planning with modular partitions and better façade design can enhance user comfort and aesthetics. Sustainable features like solar panels, rainwater harvesting, and green landscaping should also be increased.

Introduction:

Indore is known as the commercial capital of Madhya Pradesh and has become an important center for trade, education, healthcare, and information technology. Due to increasing employment opportunities and infrastructural development, the city has experienced rapid population growth and urban expansion.

Urbanization has created challenges related to housing shortages, rising property prices, and the growth of informal settlements. Affordable housing has become a major concern for economically weaker sections (EWS) and middle-income groups (MIG). To address these issues, the Government of India introduced several housing policies and schemes such as PMAY.

The Light House Project in Bicholi, Indore, is one of the six Light House Projects developed across India using innovative construction technologies. The project demonstrates sustainable urban housing solutions through rapid construction techniques and modern engineering systems.



4. Literature Review:

Several studies have highlighted the importance of affordable housing in rapidly urbanizing cities.

According to the Ministry of Housing and Urban Affairs, affordable housing projects help reduce urban poverty and improve living standards through planned residential development.

Research on urbanization in Indian cities indicates that migration and population growth increase pressure on housing infrastructure, specially in developing cities like Indore.

Studies on prefabricated housing technology suggest that modern construction methods reduce construction time, minimize material wastage, and improve sustainability.

Reports on PMAY emphasize that affordable housing schemes contribute to inclusive urban development and social welfare.

Existing literature shows that innovative housing technologies can play an important role in solving urban housing problems in India.

5. Research Methodology:

Research type

This study is descriptive and analytical in nature.

Sources of Data

The research is based on secondary data collected from:

Government reports

PMAY official portal

Housing and urban development reports

News articles

Census and demographic studies

Online journals and research papers

Method of Analysis

Data related to population growth, urbanization, housing demand, and affordable housing policies were analyzed to understand the significance of the Light House Project in Indore city.



Case Study: Light House Project, Bicholi, Indore

The Light House Project at Bicholi, Indore, was developed under the Global Housing Technology Challenge-India initiative by the Ministry of Housing and Urban Affairs.

The project uses Prefabricated Sandwich Panel System technology, which allows rapid and economical construction. Around 1,024 housing units were developed for economically weaker sections and low-income families.

Major Features of the Project

Modern prefabricated construction technology

Fast-track construction process

Cost-effective housing solutions

Environment-friendly design

Improved sanitation and water facilities

Structural durability and safety

Housing facilities for lower-income groups

Importance of the Project

Promotes sustainable urban development

Reduces housing shortage in Indore

Encourages innovative construction technologies

Improves living conditions of urban poor families

Supports the “Housing for All” mission

The project is considered a model for future affordable housing development in India.



Findings and Discussion

The study reveals that Indore city is experiencing rapid demographic and infrastructural growth. Increasing migration, industrial development, and urban expansion have significantly increased housing demand.

Major findings of the study include:

Affordable housing demand is continuously increasing in Indore city.

Rising land prices make housing difficult for economically weaker sections.

Government housing schemes play an important role in urban development.

The Light House Project demonstrates the effectiveness of innovative construction technology.

Prefabricated systems reduce construction time and cost significantly.

Sustainable and affordable housing can improve the quality of urban life.

The discussion indicates that projects like the Light House Project can become long-term solutions for housing shortages in rapidly growing Indian cities.

Relation to Objectives

Objectives

Findings

To study the demographic structure of Indore city

Population growth and migration are increasing housing demand

To analyze affordable housing needs

Lower and middle-income groups require economical housing

To study urban development in Bicholi area

Bicholi is emerging as a major residential development zone

To examine the Light House Project

The project provides sustainable and cost-effective housing

To suggest future urban housing solutions

Innovative technologies can support future housing development



Conclusion And Future scope:

The Lighthouse Project in Indore is an effective affordable housing solution for economically weaker and low-income groups.

The project supports sustainable urban development through modern construction technology.

Rapid construction methods help in reducing construction time and overall project cost.

The project provides better housing facilities, sanitation, electricity, water supply, and community infrastructure.

Affordable housing projects help reduce slum development and improve living standards in urban areas.

The demographic growth of Indore city shows increasing demand for affordable and sustainable housing solutions.

The Lighthouse Project acts as a model for future housing projects in India.

Future Scopes are -

More green building concepts and eco-friendly materials should be used in the Lighthouse Project.

Solar panels and rainwater harvesting systems can be added for sustainable resource management.

Better public transportation connectivity should be developed around the housing project.

More open spaces, gardens, and recreational areas can be included for healthier living conditions.

Smart city facilities such as digital security systems, smart lighting, and waste management can be integrated.

Additional community facilities like schools, healthcare centers, and shopping areas should be developed near the project.

The quality of ventilation and natural lighting in housing units can be improved for better comfort.

Future projects can focus on earthquake-resistant and energy-efficient building designs.

More employment opportunities and skill development centers can be established near the housing area.

The Lighthouse Project model can be expanded to other cities for large-scale affordable housing development

Conclusion.

