

Earthquake-Resistant Housing Project, Budhada, Latur (1993)

Project Overview

Following the devastating Latur earthquake of 1993, MASHAL initiated an Earthquake-Resistant Housing Project in Budhada village, Latur district, to address the urgent need for safe, affordable, and disaster-resilient housing. The project was undertaken as part of the broader rehabilitation and reconstruction efforts in the earthquake-affected region, where thousands of homes had been damaged or destroyed.

Recognizing the importance of rebuilding communities in a sustainable and locally appropriate manner, MASHAL developed innovative housing solutions that combined traditional knowledge, locally available materials, and modern disaster-resistant construction techniques. The initiative sought not only to provide safer housing options but also to demonstrate practical and replicable models for reconstruction in rural earthquake-prone areas.

Project Objectives

The project was implemented with the following objectives:

- To develop and demonstrate earthquake-resistant housing technologies suitable for rural communities.
- To utilize locally available materials and traditional construction practices while enhancing structural safety.
- To provide affordable housing solutions for earthquake-affected families.
- To build awareness among local communities regarding safer construction techniques.
- To promote community participation in the reconstruction process.

Technical Innovation and Housing Design

As part of the project, MASHAL evolved and tested several earthquake-resistant housing techniques using locally available materials such as:

- Stone
- Mud
- Bamboo

- Galvanized Iron (GI) Sheets
- Other locally sourced construction materials

The housing designs were carefully developed to improve structural stability while maintaining affordability and cultural appropriateness. The designs incorporated features that enhanced resistance to seismic forces and reduced the vulnerability of buildings during future earthquakes.

The innovative construction techniques and housing models received technical approval and validation from renowned national institutions, including:

- The Central Building Research Institute (CBRI), Roorkee
- The Indian Institute of Technology (IIT), Powai (Mumbai)

The endorsement from these institutions reinforced the technical credibility and practical viability of the housing solutions developed by MASHAL.

Community Participation

MASHAL adopted a participatory approach throughout the project, actively engaging local residents in discussions, planning, and implementation. Community members were encouraged to understand and adopt safer construction practices while contributing their local knowledge and skills.

The demonstration houses generated significant interest among villagers, government officials, development practitioners, and other stakeholders involved in earthquake rehabilitation. The project became an important platform for showcasing how locally available resources could be effectively used to construct safe and resilient homes.

Key Achievements

- Developed innovative earthquake-resistant housing technologies suitable for rural Maharashtra.
- Successfully utilized local materials to create affordable and resilient housing models.
- Obtained technical approval from CBRI Roorkee and IIT Powai for the construction techniques developed.
- Demonstrated practical solutions for post-disaster housing reconstruction.

- Increased community awareness regarding disaster-resistant construction methods.
- Established a model that influenced future rehabilitation and reconstruction efforts in the earthquake-affected region.

Impact

The project played a significant role in promoting safer housing practices in the aftermath of the Latur earthquake. The housing designs attracted widespread attention and generated meaningful discussions among affected communities about the importance of resilient construction.

The success of the initiative strengthened MASHAL's relationship with local communities and led to its long-term involvement in rehabilitation and development activities across the earthquake-affected areas of Latur and Osmanabad. The project also laid the foundation for several subsequent reconstruction and community development initiatives undertaken by MASHAL in the region.

Project Details

- Project Name: Earthquake-Resistant Housing Project
- Location: Budhada Village, Latur District, Maharashtra
- Year of Implementation: 1993
- Implementing Agency: MASHAL (Maharashtra Social Housing and Action League)
- Technical Validation: CBRI Roorkee and IIT Powai
- Focus Area: Disaster-Resilient Housing and Post-Earthquake Rehabilitation

Conclusion

The Earthquake-Resistant Housing Project in Budhada was one of MASHAL's pioneering disaster rehabilitation initiatives. By developing technically approved, low-cost, and earthquake-resistant housing solutions using local materials, MASHAL demonstrated an innovative approach to post-disaster reconstruction. The project not only provided safer housing alternatives for affected communities but also contributed to the advancement of resilient construction

practices and long-term rehabilitation efforts in the earthquake-affected region of Maharashtra.