

Slum Reconstruction and Rehabilitation Project for Flood-Affected Communities

Pimpri Camp, Pimpri-Chinchwad, Maharashtra (1997)

In 1997, Maharashtra Social Housing and Action League (MASHAL) implemented a pioneering **Slum Reconstruction and Rehabilitation Project** for flood-affected families residing in the Milind Nagar settlement of Pimpri Camp, Pimpri-Chinchwad. The project was undertaken in collaboration with the Pimpri-Chinchwad Municipal Corporation (PCMC) and aimed at providing a permanent housing solution for vulnerable communities repeatedly affected by flooding along the banks of the Pavana River.

The project emerged as one of the earliest examples of community-driven urban housing rehabilitation in the region, combining participatory planning, innovative architectural design, and sustainable settlement development to improve the living conditions of marginalized urban households.

Project Background

Milind Nagar was located in a low-lying flood-prone area adjacent to the Pavana River. The settlement was predominantly inhabited by economically vulnerable Dalit families who experienced recurring losses of property, livelihoods, and shelter due to seasonal flooding.

Recognizing the need for a long-term and sustainable rehabilitation solution, the Pimpri-Chinchwad Municipal Corporation initiated a housing reconstruction programme for the affected community. Given MASHAL's expertise in community participation and housing development, the municipal administration entrusted the organization with the responsibility of mobilizing residents, facilitating community participation, and supporting the planning and design of the rehabilitation project.

Project Objectives

The project was implemented with the following objectives:

- To provide safe and permanent housing for flood-affected families.
- To reduce vulnerability to future flood-related disasters.
- To promote active participation of residents in planning and implementation processes.

- To create awareness and understanding of the rehabilitation scheme among community members.
- To develop housing designs that reflected the needs, aspirations, and lifestyles of residents.
- To improve the overall quality of life through better housing, infrastructure, and community spaces.

Community Mobilization and Participation

MASHAL adopted a participatory approach throughout the project lifecycle. The organization conducted extensive consultations with residents to ensure that the rehabilitation process was community-centered and responsive to local needs.

Key activities included:

- Community meetings and awareness programmes.
- Household interactions and consultations.
- Orientation sessions on the rehabilitation process.
- Facilitation of community participation in planning and decision-making.
- Formation of community groups to support project implementation.
- Continuous dialogue between residents and local authorities.

These efforts helped build trust, improve community ownership, and ensure that the rehabilitation programme reflected the priorities of the affected families.

Baseline Survey and Needs Assessment

As an initial step, MASHAL carried out a comprehensive baseline survey to understand:

- Demographic characteristics of affected households.
- Existing housing conditions.
- Family size and occupancy patterns.
- Livelihood sources and socio-economic status.
- Community infrastructure needs.

- Residents' aspirations regarding future housing and settlement design.

The findings of the survey formed the foundation for the planning and architectural design process.

Housing Design and Planning

Drawing upon the information gathered through community consultations and surveys, MASHAL prepared a comprehensive architectural and settlement development plan for the rehabilitation project.

The housing model adopted a **Low-Rise High-Density (LRHD)** approach, which optimized land utilization while preserving social cohesion and community interaction.

The design incorporated several innovative features, including:

- Multi-storey walk-up apartment buildings.
- Modular housing layouts that could accommodate different family needs.
- Efficient use of land and infrastructure resources.
- Adequate natural lighting and ventilation.
- Common circulation and gathering spaces.
- Community courtyards promoting social interaction.
- Cost-effective construction and maintenance systems.

Special emphasis was placed on creating a built environment that was both functional and aesthetically appealing while remaining affordable for low-income households.

Housing Reconstruction and Rehabilitation

Through the implementation of the project, MASHAL successfully facilitated the rehabilitation of approximately **1,000 flood-affected families**.

The newly constructed housing units provided residents with:

- Safe and permanent shelter.
- Improved structural stability and durability.
- Enhanced protection from future flooding.

- Better living conditions and privacy.
- Access to organized infrastructure and community facilities.

The transition from vulnerable informal housing to planned residential buildings significantly improved the quality of life of beneficiary families.

Innovative Design Features

One of the distinguishing aspects of the project was its focus on long-term sustainability and affordability.

Key design innovations included:

Courtyard-Based Planning

Internal courtyards served as community gathering spaces, promoting social interaction, children's activities, and community cohesion while improving environmental quality within the housing complex.

Natural Ventilation and Lighting

The building layout was carefully designed to maximize cross ventilation and natural daylight, reducing dependence on artificial lighting and improving indoor comfort.

Modular Housing Units

Flexible housing layouts enabled efficient use of space while allowing residents to adapt their homes according to household requirements.

Low Maintenance Costs

The design minimized future maintenance expenses through the use of durable materials, efficient service layouts, and simplified building systems, making the housing financially sustainable for low-income residents.

Outcomes and Impact

The project achieved several significant outcomes:

- Successful rehabilitation of approximately 1,000 flood-affected families.
- Relocation of households from flood-prone areas to safer housing environments.
- Improved housing quality and living conditions.

- Enhanced community participation in housing development.
- Creation of a sustainable and cost-effective urban housing model.
- Strengthened social cohesion through community-oriented design.
- Reduced vulnerability to future environmental and disaster risks.

Project Significance

The Pimpri Camp Slum Reconstruction Project became a landmark initiative in participatory urban housing development and disaster-resilient rehabilitation. The project demonstrated how community engagement, technical innovation, and responsive planning could be effectively integrated to address the housing needs of vulnerable urban populations.

The successful implementation of the project established an important model for low-income housing and rehabilitation programmes in Maharashtra and strengthened MASHAL's reputation as a leading organization in housing, habitat development, community participation, and inclusive urban planning.

The lessons learned from this initiative subsequently informed several housing, slum redevelopment, rehabilitation, and community development projects undertaken by MASHAL across urban and peri-urban areas of Maharashtra.