Case Study

In-Situ Slum Upgradation under JNNURM

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EXECUTIVE SUMMARY

While the challenges of urbanisation are plenty, exponential growth of informal settlements is one of the most alarming. People living in these settlements lack basic necessities, and have an inhuman standard of living. Apart from the anguish of living with the constant fear of being uprooted, they continuously deal with issues of make shift houses, lack of toilet, electricity and water supply challenges.

The government of India has launched national and state level policies and schemes to address various aspects of slum rehabilitation and resettlement. However, recent studies have indicated inadequacy in these efforts while dealing with the needs and aspirations of the slum community. The conventional approach of building rehabilitation colonies in peri-urban localities is not proving beneficial for the community. Relegating the urban poor to the peripheries of the city not only takes away the right of the poor to live where they desire but also indirectly aggravates poverty by imposing increased transportation and living cost on these unskilled labour force. The provisions of demolishing the existing slums for either sanitising the cities or for rebuilding new housing facilities also fail to consider the emotional bonding people hold with their localities.

The Pune Municipal Corporation came up with a unique community driven in-situ slum upgradation project under Basic Services to the Urban Poor (BSUP) scheme of Jawaharlal Nehru National Urban Renewal Mission (JNNURM). This project recognises the prevailing concerns of the urban poor and thereby integrates the community in its planning and implementation process. The uniqueness of the project lies in its in-situ design that allows the locals to have houses with all the basic amenities in their own settlements without bearing the brunt of being uprooted to a government imposed outskirt. Every household was designed in consultation with the future residents of the houses. The project gave special emphasis on the sanitation, hygiene, ventilation and lighting requirement of the community. The highlight of the project is its provision of secure tenure for the slum dwellers, otherwise living with the constant insecurity of being uprooted by the government.

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1 Peri-urban areas are adjoined to an urban area and located between the suburbs and the countryside.


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This project has emerged as an innovative solution to slum rehabilitation challenges in the developing world. Its in-situ model and community driven approach has made it a prototype of good governance in urban housing and poverty alleviation. Recently this project was selected by Smithsonian Cooper-Hewitt, National Design Museum, New York to display its model at an exhibition titled Design with Other 90 % Cities, which explores design solutions addressing challenges created by rapid acceleration in urban informal settlements.

METHODOLOGY

The Governance Knowledge Centre decided to document the Pune slum upgradation project as a best practice because it incorporates innovative approach to follow in-situ rehabilitation strategy under the JNNURM project. The rationale of this in-situ approach is to acknowledge the economic implication and emotional bonding the slums communities associate with their own settlements. Unlike other conventional Rehabilitation and Resettlement and slum upgradation policies and programmes, this unique project neither adopts the blanket measure of demolishing the entire slum areas and rebuilding it from the scratch nor does it take the slum community out of the city to sanitise the urban space. Instead this project is conceptualised by the local government authorities to be implemented by NGOs working for housing and sanitation concerns of the urban poor in close association with the local community.

The Governance Knowledge Centre team used both primary and secondary research methods for the preparation of this best practice document.

Secondary research was conducted to understand the policy implications of JNNURM for slum resettlement in the city of Pune and the currents debates surrounding policies and challenges related to housing, sanitation and basic services provisions in slum areas. Important information on the Pune in-situ slum upgradation project was gathered from mainly newspaper articles and reports published by the Society for the Promotion of Area Resource Centres (SPARC) and Prasanna Desai Architects. In order to validate the secondary research findings and to gather specific insights, a telephonic interview was conducted with architect Mr. Prasanna Desai, who designed the houses.

There are multiple stakeholders involved in various aspects of the project implementation. However, the researcher could not interact with all the stakeholders involved, including the beneficiaries, while preparing this documentation. This can be considered as a limitation in depicting a comprehensive illustration of the project implementation process.
BACKGROUND

As the population of the country is rapidly starting to concentrate in the urban geography, severe constraints are encountered by cities in extending basic facilities for a decent standard of living, especially to the urban poor. With the alarming increase in rural to urban migration, mainly propelled by stagnation and volatility of agricultural sector and lack of other sustainable livelihood generation activities in rural areas, the city spaces are becoming claustrophobic. The migrants, particularly the unskilled labour force, who enter the city in search of better employment opportunities, mostly end up settling in the slum settlements, which is defined by the United Nations Habitat as a heavily populated urban area characterised by substandard housing and squalor.\(^3\) Although housing is a major issue in all the Indian cities it is most unprecedented for the 75.26 million people living in slums.\(^4\)

As per the Census of India 2001, the population of Pune is approximately 25 lakhs, out of which, an estimated 30-35 per cent are the urban poor residing in 564 slums of the city.\(^5\) The growth of slum population is higher than that of the total population and the density in slums is about 6 times compared to the overall density of population in the city. Specifically, in the Warje Karvenagar area of Pune the slum density is 23,509 persons per hectare in comparison to 97 persons in the non slum areas. According to the estimates of the Pune Municipal Corporation, 27 percent of the city’s population resides in 353 notified slums covering only 4 percent of the city area.\(^6\) As per the Shelter Survey conducted by PMC in 2000, 52 percent of the housing is in the kuchta category, most of households do not have proper access to basic services or have to share community facilities. These statistics clearly portrays the saturating conditions of land and resources, inadequate access to safe water, hygiene and sanitation infrastructure along with the persist fear of living everyday with the quasi-legal or illegal residential tenure-status.

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\(^6\) Notified slums are those that have been notified as slums by municipalities, corporations, or any other local authority. Out of 564 slums in the Pune city 353 are notified and 211 are undeclared.
The government of India under the Ministry of Urban Development launched the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) in the year 2005 with the aim of creating economically productive, efficient, equitable and responsive cities by a strategy of upgrading the social and economic infrastructure in cities. The provisions of Scheme of Housing and Shelter Up-gradation (SHASU) 1990, Basic Services to the Urban Poor (BSUP) 2005-06, Integrated Housing and Slum Development Programme (IHSDP) 2005, National Urban Housing and Habitat Policy 2007 and Rajiv Awas Yojana 2009 are launched subsequently in accordance with the 74th Constitutional Amendment Act, 1992. The government of Pune has also been implementing a range of schemes for slum improvement over the years. Government Redevelopment Scheme was introduced to enable free construction of houses of about 270 sq feet built up area. This scheme was implemented in 78 slums in city. Under the Paid Toilet opportunities. As the commutation expenses grow, the localities has brought to light many realities pertaining to inconvenience and insecurities faced with the existing slums for either sanitising the cities or for rebuilding new housing facilities do not to consider the emotional bonding the people hold with their dwellings and localities. The policy makers often fail to comprehend the emotional value attached with the existing houses that had been built by the poor with their hard earned money. The provisions of providing one-time grant or a small piece of land to the slum beneficiaries selling of these houses and returning to some other slum inside the city -and the cycle continues.

Thus, in urban India local municipalities have the authority and responsibility of providing housing and city level infrastructure according to the rationale of democratic decentralisation. But in practice, financial support, housing development and provision of basic services have huge discrepancies in almost all the government promoted low-income settlements, translating into a visible gap between the vision and successful implementation.

The recent debate over the sustainability of resettlement colonies constructed in peri-urban localities has brought to light many realities pertaining to inconvenience and insecurities faced by the urban poor in those government imposed settlements. Those resettlement colonies built under the government’s flagship policies deny the right of the poor to reside in a city. The poor are relocated outside the peripheries of the urban space from where they need to commute daily to the city for availing livelihood opportunities. As the commutation expenses grow, the importance and utility of housing facilities diminishes, leading to beneficiaries selling of these houses and returning to some other slum inside the city -and the cycle continues.
dwellers for constructing houses on their own, with no access to affordable loans, and technological and architectural expertise for construction, also fall short of providing sustainable solution to the homeless.

On recognising the importance of addressing there pressing concerns to build an inclusive urban space and to fill in the gaps in the existing slum development policies, a unique community driven in-situ project was designed by the PMC under BSUP scheme of JNNURM. This project, designed to upgrade 7 high density slum areas in Yedwara region of Pune, is emerging as a distinguished effort that is receiving national and international accolades. Innovativeness of this project lies in its housing designs that allow the locals to have houses with all the basic amenities in their own settlements without bearing the brunt of being uprooted to a government imposed outskirt.

OBJECTIVE

The objective of the project was to improve living conditions in the slum areas of Pune. It aimed to build houses with all the basic amenities like sanitation and better ventilation. As lack of toilets was a major issue in these high density slums pockets, special emphasis was given on building in-door sanitation facility. The project targeted to develop a total of 4,000 units in Pune out of which 1,099 kuccha houses were selected under Yerwada region.

PROGRAMME/PROJECT DESIGN

KEY STAKEHOLDERS

1. Pune Municipal Corporation (PMC) undertook the in-situ slum upgradation project under the central government’s scheme of Basic Services for the Urban Poor (BSUP) under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM). PMC selected 7 slums in the Yerwada region of Pune for upgradation. PMC came up with a tender for the NGOs to apply for taking up the project. The NGO had to have strong community presence and experience of working closely with the local elected representatives.

2. The Society for the Promotion of Area Resource Centres (SPARC) was appointed by the PMC to implement the project. SPARC is a national-level NGO that works on the issues of housing and sanitation for the urban poor. SPARC initiates efforts to organise and mobilise communities of the slum dwellers to help them gain access to resources required for upgradation and formalisation of the various forms of informal
settlements. SPARC has been working together with Mahila Milan and National Slum Dwellers Federation (NSDF) on these issues and their partnership is called an Alliance. This alliance in partnership with CHF-International undertook the responsibility of conducting biometric and socioeconomic survey of the slums, appointing architects, monitoring construction process, and devising financial strategies and ensuring effective community participation and equitable distribution of resources.

a. NSDF is a community based organisation comprised of community members and leaders residing in the informal settlements across India. NSDF helps the urban poor in building an organised strength against demolition and for securing basic amenities of water and sanitation in the informal settlements.

b. Mahila Milan is a decentralised network of collectives of poor women propagating credit and saving programmes in their communities.

3. **CHF-International** is an organisation funded by the Bill & Melinda Gates Foundation with the objective of facilitating community involvement in the planning and implementation of slum improvement programmes. It provides financial support to SPARC in various stages. Most of the workshops undertaken by Mahila Milan to involve community in the project implementation were funded by the CHF-International.

4. **Prassana Desai Architects**, a renowned architect in Pune, was appointed by SPARC for designing the houses in February 2009. Mr. Desai and his associates were responsible for verifying and finalising *kuccha* and *pucca* structures on site. The feasible building types were then designed keeping the existing fabric of the slums in mind. The team had the responsibility of explaining the structure to the beneficiaries and incorporating their suggestions.
PROCESS FLOW

FRAMEWORK OF IN-SITU SLUM UPLIFTMENT PROJECT UNDER JNNURM IN PUNE:

The PMC created the City Development Plan for accessing the mission funds under the Basic Services for Urban Poor (BSUP) scheme of the JNNURM to improve urban infrastructure and services in the city. Subsequently, PMC received the funds under the BSUP for undertaking upgradation of 4000 housing units to be implemented in packages of separate slum clusters. A housing subsidy of INR 3 lakhs was granted for developing the entire area of 270 sq feet per house to achieve a sustainable inclusive city.

The project was launched in 2009 with the target of providing dwellings to the families of 1,099 kuccha households residing in seven high-density slum areas in Yerwada. These include Mother Teresa Nagar, Sheela Salvenagar, Wadarwasti, Bhattnagar, Netajinagar, Yashwanthnagar and Chandramanagar. The project is to be completed by March 2012.

As per the guidelines of JNNURM, the slums covered under the project are necessarily the notified slums located on government land which is neither reserved for any public purposes nor an ecologically valuable space. Under this in-situ slum upgradation project there is the provision of de-notifying the site as a slum after the successful implementation of the project. After which the residents will be liable to pay the property taxes. While the benefit of the project was restricted to those residing in pucca houses, the households that were already kuccha could not avail the housing subsidy, but given a grant of INR 15,000 for constructing toilets. As the whole project is based on the cluster wise policy, eligible kuccha households are grouped into clusters chosen by a natural ordering of housing arrangements that shared common walls and boundaries.

STAGES OF PROJECT IMPLEMENTATION

Conducting surveys: Prior to project implementation, a range of surveys such as plane table survey, biometric survey and socio-economic survey were conducted. This process was led by the community itself in a drive to create a strong and meaningful knowledge base for analysing
the context and current scenario, and thereby help in strategising for negotiation with the government and its intermediaries. The knowledge base contained valuable indicators of number of households, residential and commercial land usage patterns, household level income, employment type, education level, and detailed accounts of other basic facilities available in the locality. The information obtained helped in listing the beneficiaries and in identifying kuccha and pucca structures for project estimates. The socio economic survey unraveled the mosaic of the society that had later on helped in understanding the aspirations and requirements of the community.

**Designing suitable housing:** The project focuses on upgrading existing houses in-situ that is on the existing foot print, rather than on demolishing the entire slum area for rebuilding. Unlike in other conventional slum improvement schemes, this project allows the community to exercise informed choice in finalising a tailor-made design for their houses. Special emphasis was given on integrating energy efficiency, flexibility of topology and quality of space in its design.

**Community meetings to explain the project design:** Cluster meetings and workshops were organised by Mahila Milan and the architectural team to explain the possible housing layouts to the residents. The meetings started with introducing the community to the government scheme and the NGOs who are implementing it. Members of the clusters were categorically explained the financial model of the project that requires 10 percent contribution from the beneficiaries. Then the working design and the pace of the project were explained by adopting various visual tools such as maps and cardboard blocks. Temporary model was built on the site with bamboo and cloth to allow clearer spatial understanding of the design. This exercise not only facilitated better understanding of the model but also opened up space for new ideas and opportunities for making the arrangements more beneficiaries friendly.

**Ranges of housing options:** The architecture team focused on retaining the footprint of each individual household, along with its street patterns, with an approximate carpet area of 135 sq feet. The priority of the residents to stay on ground was taken care of in designing the houses. Although the community has no secure tenure they often cling on to their land holding leading to the choice of houses on the ground floor. The concept of owing a floor on someone else’s land was not perceived to be a safe and comfortable option for the majority of residents.

Figure 2: Community meetings organised by Mahila Milan. Source: SPARC.

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Considering the existing policy guidelines and the difficulty of different footprints present within the different clusters the team came up with two housing choices - option A and option B. Option A is an individual house, built as a Ground+1 structure and option B is an apartment style Ground+2 building for irregular housing arrangements and small structures clusters. The community was given enough time and guidelines to opt for any of these designs. Although most of the residents opted for option A, smaller houses could not be accommodated in this category. A lot of effort was required by the architecture team and Mahila Milan to convince people to opt for option B as it does not comply with their aspiration of holding on a land area.

On many accounts the work on entire 5-6 clusters had to be put on hold as few individual households were apprehensive in building a consensus for option B.

**Provision of basic services:** The detailed community meetings had brought up the need for attached toilets, balconies and underground water storage tanks. Inclusion of a water storage tank led to the creation of a ‘veranda, a semi private interactive space’ in front of every household. In order to retain the scope for controlled incremental growth over the years the architects molded the designs with addition of terraces. Special emphasis was also given to incorporate lighting and ventilation conditions.

**The final process of construction:** After receiving consensus from the clusters through an extensive participatory process of consultation and modification, and verification of bank accounts and other eligibility documents by the government authorities, the actual process of construction began. Onset of the process made the stakeholders realise that the designs finalised on many instances subject to change as per the site condition. This resulted in consolidation of further community meetings for final approval. The project is currently in its final stage of completion.
FUNDING

The central government releases 50 per cent of the funds for the project, 20 per cent comes from the state government and another 20 per cent from the municipalities. The community has to contribute 10 per cent of the cost for the project, as per the guidelines under the JNNURM.

ACHIEVEMENTS

Innovative in-situ model for slum upgradation: Unlike in other conventional slum rehabilitation projects, this innovative in-situ slum upgradation project of PMC consider the financial, social and emotional security and comfort of those people residing in the slum pockets of the city. This model is based on the bottom-up development paradigm that seeks effective community involvement in welfare projects to make it truly pro-poor and people centric. The innovative exercise of facilitation better housing facilities in their existing foot prints, without relocating them to the peri-urban localities or by dismantling their existing social fabrics, has massively helped the urban poor in maintaining the network they had established for gaining access to work related opportunities. This in-situ project is a mile stone in recognising the right of the poor to live in a city. By virtue of realising the financial and emotional burden imposed on the poor by pushing them out of the city, the project seeks to put an end to the cycle of selling rehabilitation quarters by the beneficiaries and coming back to informal and mostly illegal settlements in search of wage and other employment opportunities.

Dealing with the sanitation challenge: While the lack of toilet facilities is considered as the worst part of slums, a major focus of the project was to ensure proper sanitation and hygiene facilities in the newly built houses. As the country has earned the dubious distinction of having more number of cell phones than toilets, a project like this can believed to bring in change in the hygiene and sanitation situation. The existing provisions of community toilets mostly do not serve the purpose. Predominantly, due to the lack of proper maintenance and water scarcity, the toilets are filthy that prompts people to defecate in open and contaminate the surrounding environment. The provision of in-door sanitation facilities is a big relief especially for women who often suffered indignity and risk for safety while waiting till dark to defecate. The difficulty of accessing toilets at night forced women to hold urine for hours leading to severe health repercussions.

Involving poor as partners, not merely as beneficiaries, in the project: The novelty of this project lies in its bottom-up approach that treats the slum dwellers as partners rather than just beneficiaries. From the initial stage of surveying to finalising the housing designs the community was involved through various meetings and workshops. The housing designs of A and B was extensively demonstrated and elaborated before asking them to vote for their final
choice. The community was encouraged to express their own wishes in terms of deciding the location of toilets, provision of balconies and water tanks. Constant and continuous dialogue with the community not only ensures people centric development but instilled a sense of ownership for the project among the beneficiaries.

**Tenure security:** More than the housing and sewage systems, the unparallel benefit of the project for the beneficiaries has been the sense of tenure security. The project will allow the beneficiaries having a legal claim to their houses, where they have been living for decades. Secure tenure is a basic condition for access to socio-economic opportunities such as livelihood, basic services under government welfare schemes and micro credit. Secure tenure work as an incentive for slum dwellers to improve their living environment.

**CHALLENGES IN IMPLEMENTATION**

The Pune in-situ slum upgradation project has been successful in exploring an alternate housing and slum upgradation model to be replicated across the country. Though this project was a collaborative effort of government, civil society and the community it encountered a few challenges in dealing with varying needs of the community. Whenever the proposition of sharing land area with neighbours were discussed by the architect team, there was a strong resistance from the people. As very small houses (with less than 100 sq feet carpet area) had to be integrated with the neighbours’ to come up with the G+2 structure, the households showed disinterest and lack of trust in the project. It required months of persuasion and negotiation with the community to start the actual process of construction. The question of financial contribution of 10 percent by the beneficiaries was also a subject of contention. The project also had an objective of widening roads, building storm water drainage system and increase in the public space, which required for households to rearrange their footprints. However, the appeal for releasing some part of the foot print emerged as a major cause of conflict leading to limiting the scope of the project to uplifment of housing conditions.
CONCLUSION

The Pune slum upliftment project has emerged as an innovative solution to slum rehabilitation challenges in developing world. Its in-situ model and community driven approach have made it a prototype of good governance in urban housing and poverty alleviation. Recently this project was selected by Smithsonian Cooper-Hewitt, National Design Museum, New York to display its model at an exhibition titled Design with Other 90 % Cities, which explores design solutions addressing challenges that are created by rapid acceleration in urban informal settlements.

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REFERENCES


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APPENDIX A – INTERVIEW QUESTIONNAIRE

Background:

1. The project was implemented under the Basic Services for Urban Poor (BSUP) scheme of the JNNURM by the PMC in collaboration with Prasanna Desai Architects, Society for the Promotion of Area Resource Centres (SPARC), National Slum Dwellers Federation, Mahila Milan and Community Housing Federation (CHF). Can you elaborate on the roles and responsibilities of each stakeholder in implementing the project?

2. Considering that JNNURM is a government initiative, how did you get involved in this project? Were you approached by the Pune Municipal Corporation? If no, then what process was followed?

3. According to the newspaper articles, the project seems to have been launched in April 2009, however, there are also indications of project being implemented in 2007. Can you clarify the year of implementation for the project?

4. The Slum Rehabilitation Project under JNNURM has to be implemented in all notified slums. What was the reason behind particular project in the Yerwada region of Pune?

5. Prior to the implementation, was there any needs assessment done to understand the requirements of the residents?

6. How many slums settlements in Yerwada are being targeted for the project? What is the total number of households covered in the project?

Process flow

4. This project follows an in-situ rehabilitation model. What does that mean? Can you elaborate on overall approach to implementing this model?

5. Our research indicates that there are two different types of houses, Type A and Type B, built under this project. Can you explain the difference between the two topologies?

6. According to our research, the project follows a bottom-up approach to designing houses. Can you explain the process followed to ensure effective community participation? How do you ensure that preference and suggestions of beneficiaries are incorporated in the design?
7. The project took special care of the sanitation and hygiene needs of the community. Please give an overview of the features adopted for the purpose? Do these houses have electrification and water supply facilities?

Funding

8. According to BSUP under JNNURM, a housing subsidy of INR 3 lakh is allotted per house of which 90 per cent funding is from the government and 10 per cent from the beneficiary. Is there any difference in the financial model of Yerwada project?

   a. If yes, what is the financial model for this project?

   b. If no, did you face any challenge in convincing the slum community to pay for the facility?

Achievements

9. What do you believe is the foremost accomplishment of the project till date?

10. What has been the response of the beneficiaries? Were they cooperative in the design process? If no, why not?

Challenges

11. This project involves multiple stakeholders from the government, civil society, and community in planning and implementation. Considering this, were there any challenges in implementing the project?

12. Did the project face any resistance from the targeted beneficiaries?

13. Were there any other challenges? If yes, what are they? How did you resolve them?

Way forward

14. Considering that this project has been regarded nationally and internationally as an innovative and replicable model of slum rehabilitation, are there plans of scaling up this project to other slum pockets of the city or in any other states? If yes, please provide the details?

Data

15. Can you share quantitative data to understand the scope and impact of the project till date? For example:
a. Total number of slum settlements in Yerwada

b. Total number of slums settlements rehabilitated till January 2012

c. Total number of individual houses constructed till January 2012