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## Participatory In-Situ Slum Upgrading in Yerwada, Pune

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## Summary

In 2005, the government of India launched a nationwide urban development initiative titled 'Basic Services for the Urban Poor' (BSUP), which sought to support and formalise slums by providing shelter and basic services. However, it was reported that a majority of slum dwellers were dissatisfied with the outcomes of the projects undertaken under this program. There was a misalignment between the needs of the slum dwellers and what was actually provided, leading to lower rates of acceptability among the beneficiaries. The Yerwada slum neighbourhood in Pune was upgraded as a part of the BSUP program and is considered as one of the very few successful projects under this program. Due to participatory, incremental, and in-situ slum upgrading strategy adopted, this project received international recognition and was called a success by the government of India after its completion in 2012. Therefore, using Yerwada slum upgrading as a case study, this study explores the transformative potential of participatory approaches in addressing housing challenges. It looks at the perceptions of the slum dwellers and analyses how the participatory slum upgrading process helped in shaping the acceptability of housing outcomes from their perspective.

An explanatory research design involving qualitative data collection was employed to explain the relationship between the two variables of the study – participatory slum upgrading and acceptability of housing outcomes. During the on-site fieldwork, in-depth interviews with eight respondents were conducted which allowed them to share their experience and perceptions in detail. Along with this a questionnaire was also distributed to 35 households to collect demographic data as well as data on both the variables of the study. Secondary data was collected from official reports published by the stakeholders, as well as through online lectures and interviews. The triangulation of data from different sources helped in making the findings more robust and increasing internal validity of the study. Data Analysis was done using thematic analysis, which involved coding of data and analysing themes to make connections between various indicators.

The findings from data analysis indicated that the participatory approach proved to be instrumental in ensuring that the outcomes of the intervention align with the needs of the community. Though the participation was low in the identification, construction and evaluation phase of the project, the findings highlighted that participation during the design and planning stage significantly shaped the outcomes and improved acceptability. A positive correlation was observed between participation during the planning stage and the physical and socio-cultural acceptability of outcomes. By involving the community in the decision-making process, the project respected the existing social dynamics and cultural practices of the settlement, thus leading to higher rates of acceptability among the community.

## Keywords

In-situ slum upgrading, community participation, housing adequacy, acceptability of housing outcomes, incrementality.

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## Abbreviations

IHS	Institute for Housing and Urban Development Studies
BSUP	Basic Services for the Urban Poor
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
PMAY	Pradhan Mantri Awas Yojana
MoHUPA	Ministry of Housing and Urban Poverty Alleviation
PMC	Pune Municipal Corporation
SPARC	Society for the Promotion of Area Resource Centres
PDA	Prasanna Desai Architects
UN	United Nations

## Glossary

<i>Kuccha</i>	Temporary or makeshift housing
<i>Pucca</i>	Permanent or solid housing (RCC structures)
<i>Jhopad-patti</i>	Makeshift shack (Also translates as the Marathi word for 'slum')
<i>Otah</i>	Elevated porch in front of the main door
<i>Gully</i>	A narrow lane or passageway
<i>Mahila</i>	Women
<i>Bachat ghat</i>	Community Savings group
<i>mandap</i>	Temporary covering for festive occasions
<i>nagarsevak</i>	Local Corporator



# Chapter 1: Introduction

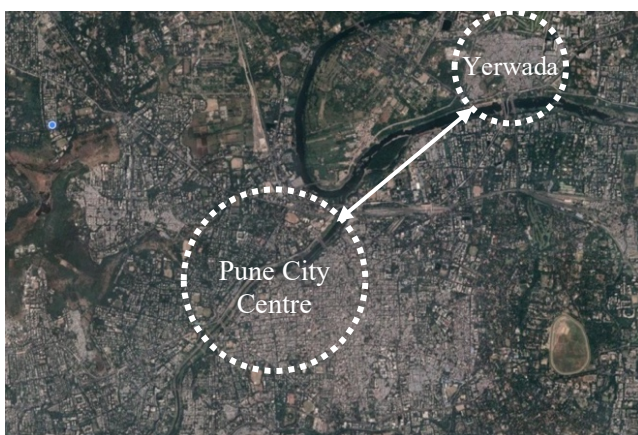
## 1.1 Background of the Research

India has witnessed a rapid rate of urbanisation over the last few decades. The urban population of India as of 2021 is approximately 377 million, which is 35.7% of its total population (World Bank, 2021). The cities have emerged as economic hubs creating enormous amounts of employment opportunities, leading to high rates of rural-urban migration (Ahluwalia, 2014). As a result, the demand for affordable housing options in urban centres has significantly exceeded the supply, leading to the proliferation of slums (Bhate & Samuel, 2023). Around 80% of the total housing shortage in India is accounted by people living in congested conditions like slums (MoHUPA, 2016). The slums in India are characterized by unhygienic living conditions and inadequate infrastructure leading to reduced quality of life for the residents, high crime rates and many health risks (Chimankar, 2016).

In order to tackle these problems associated with slums, the Indian government has launched many programmes for the provision of affordable housing. In 2005, the government launched BSUP (Basic Services for the Urban Poor) under JNNURM (Jawaharlal Nehru National Urban Renewal Mission) which sought to support and formalise slums by providing shelter, basic services and other related civil amenities to low-income settlements. These include security of tenure, affordable housing, water, sanitation, health care, education and social security. Under BSUP, eligible slums were provided funding by the central and state government and the local governing bodies were responsible for carrying out the execution of the upgrading process. The goal was to improve physical and economic conditions of the slum residents in order to achieve a better quality of life.

## 1.2 Yerwada Neighbourhood

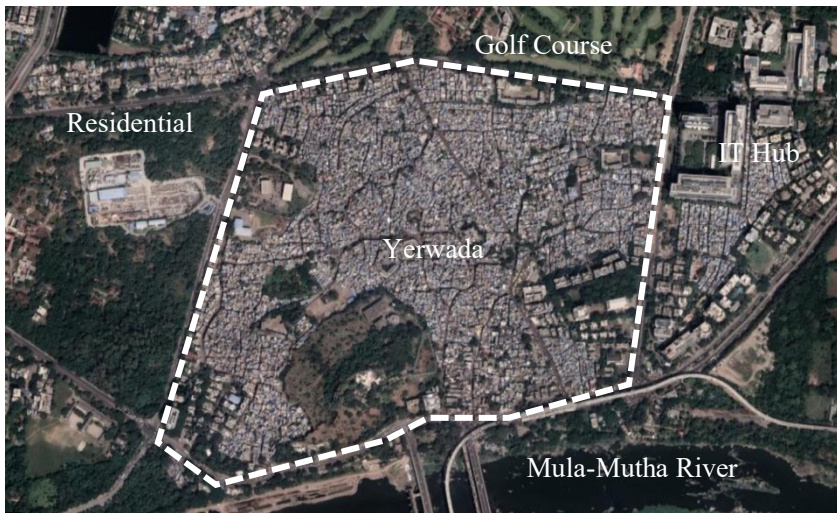
With a population over 7 million, Pune is the 8<sup>th</sup> largest city of India, and second largest urban agglomeration in the state of Maharashtra. It is located around 200kms east of Mumbai and is widely known as an industrial and educational hub. Since 1960, the city has been continuously growing and expanding its borders. This growth can be attributed to the high number of industrial units in and around the city (Nakamura, 2017). Rapid industrialization created many job opportunities, causing high rates of rural-urban migration. As the population kept growing, demand for affordable housing exceeded the supply and people started squatting on inadequately serviced nearby vacant lands, causing formation of slums. Over the years, these slums have grown organically and are present are pockets of high-density neighbourhoods dispersed throughout the city. As of today, there are 564 slums in Pune, out of which 353 are notified by the municipality<sup>1</sup>, and 30 are located in the Yerwada neighbourhood (Image 1) (PMC, 2023)



**Image 1:** Yerwada Slum Location.  
Source: Google Earth (2023)

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<sup>1</sup> In India, a notified slum refers to a slum that is formally recognized by the government and has a legal status.



**Image 2:** Yerwada Neighbourhood.  
Source: Google Earth (2023)

Yerwada is one of the oldest neighbourhoods in the city of Pune, comprising of thirty high density slum areas. It is located in the north-eastern part of the city, around 4.5 kms from the central area. It is situated along the banks of the Mula-Mutha river and shares borders with a high-income residential neighbourhood, a premium golf course as well as one of Pune’s largest IT parks (Image 2). The slums in this neighbourhood have grown and evolved over many years due to lack proper urban planning guidelines and are characterized with inaccessible roads, poor conditions of living and lack of hygiene (Srivatsa, 2015). The average building footprint in Yerwada is around 15q. m and all the houses are clustered next creating an extremely fine urban grain. Up until two decades all the houses in the slums were *kuccha* houses (Temporary shelters). Since then, multiple upgrading projects have taken place in different parts of the slum, under different programmes, aiming to provide *pucca* (permanent) houses to the residents.

### 1.3 Yerwada Slum Upgrading under BSUP

The slums of Yerwada were included as one of the projects under the BSUP program in 2009. The people of Yerwada were living in *jhopad-pattis* (makeshift-shacks) in hazardous and unhygienic conditions and lacked access to basic services like water, drainage and electricity. The target of the project was to provide adequate housing to 1200 families from seven high density slum areas of Yerwada by 2012 (Image 3). A team of NGO professionals and architects were invited by the local corporator to collaborate with the community to facilitate the upgrading process in Yerwada. The project was completed on-time in 2012 and was successful in providing upgraded dwelling units to 1200 families using a participatory, incremental, and in-situ upgrading strategy (Srivatsa, 2015; Desai, 2011).



- A. Mother Teresa Nagar
- B. Sheela Salve Nagar
- C. Wadar Wasti
- D. Bhatt Nagar
- E. Netaji Nagar
- F. Yashwant Nagar

**Image 3:** Location of 7 neighbourhoods chosen for BSUP upgradation project.  
Source: Srivatsa (2015)

The beneficiaries from the seven slum areas interacted with the different stakeholders – PMC (Pune Municipal Corporation), SPARC (NGO), Mahila Milan (NGO and facilitator) and Prasanna Desai Architects (Architectural Design Firm) during various stages of the project. They were involved in tasks like taking surveys, coming up with design development strategies and aiding in construction. After deliberations with the community an incremental in-situ upgrading strategy was developed which accommodated the space for adding an additional floor when the family felt the need to expand. Every dwelling unit was allocated a total sum of 3 lakh Rs. (Approximately 3600 \$) of which 50% was provided by the central government and 40% was provided by the local government. Beneficiaries were also expected to contribute 10% of the initial construction cost and those who were not able to do so were offered alternative ways to contribute to the project. Within a span of 3 years, the project achieved its goals of transforming all *kuccha* (temporary) units (refer to Image 4) in the seven neighbourhoods into *pucca* (permanent) structures (refer to Image 5), as well as providing security of tenure to the beneficiaries and completion certificates for each individual unit.



**Image 4 :** Cluster of *kuccha* units in Yerwada (Before upgrading).  
Source: Srivatsa, 2015



**Image 5:** Post-upgrading *pucca* unit  
Source: PDA, 2011

## 1.4 Problem Statement

There is a growing body of academic literature that highlights the importance of formalizing slums and improving the legal and regulatory frameworks that govern informal settlements (Durand-Lasserve & Royston, 2013; Gilbert, 2014). However, studies have found that many slum formalisation projects have had negative effects resulting in gentrification and displacement of low-income residents (Mukhija, 2013). Some of these projects also reinforce existing power imbalances and inequalities (Roy, 2011). This situation can also be seen in most of the projects funded by the BSUP programme. The beneficiaries were dissatisfied and unhappy with the initiatives which often led to conflict with the government officials (Patel, 2013). In many cases slum dwellers rejected the apartments offered by the government and instead tried to demand the money allocated to improve their existing slum dwellings. Despite providing legal tenure security and “better” housing conditions many residents decided to shift back to other informal settlements, indicating low acceptability of the housing outcomes. Patel (2013) says that the inadequacies of what was built under the BSUP programme is directly related to not involving the slum dwellers in the upgrading process and offering solutions without understanding the requirements of the beneficiaries.

However, in the case of Yerwada slum upgrading, the local governing body decided to handle the project differently. It was one of the very few projects under BSUP that involved the community during various stages of the project and was one of the first project in India to do so. Due to participatory, incremental, and in-situ strategy adopted, this project received international recognition and was called a success by the government of India after its completion in 2012. However, all the reports and articles published are from the perspective of the NGOs or local governing bodies. The perception and attitude of the community towards the participatory process and outcomes have not been studied in these reports. This is where the research gap lies. This study will look at the acceptability of the outcomes in terms of physical, economic and socio-cultural dimensions from the perspective of the community and analyse how the participatory, incremental and in-situ process helped in shaping the acceptability of outcomes. It will examine the post occupation situation of the project and will look at if the residents have adopted the incremental strategy that was envisaged at the beginning of the project.

## **1.5 Research Objectives**

The main objective of the research is to explain how the participatory in-situ upgrading project in Yerwada contributed to the acceptability of housing outcomes. In order to do this, the research will describe:

- The forms of community participation that took place during different stages (planning & design, implementation and evaluation) of the slum upgrading project.
- The housing outcomes of the incremental in-situ slum upgrading strategy at the individual household and neighbourhood level, as well as in terms of tenure security.
- The perception of the community members regarding acceptability of these outcomes in terms of the physical, socio-cultural and economic dimensions.

While describing the above-mentioned objectives, this research will draw correlations between acceptability of housing outcomes and the participatory upgrading process which will help us address the main research objective.

## **1.6 Research Questions**

### **1.6.1 Main Research Question:**

How did the participatory in-situ slum upgrading process in Yerwada contribute to the acceptability of housing outcomes?

### **1.6.2 Sub Research Questions:**

1. What forms of community participation were involved during all the stages of the Yerwada slum upgrading project?
2. What were the housing outcomes of the incremental in-situ strategy adopted for slum upgradation?
3. What was the communities' perception regarding the 'acceptability' of the housing outcomes?

## 1.7 Relevance of the Research

*Academic Relevance:* This research on participatory in-situ upgrading in Yerwada, Pune contributes to the fields of urban development, housing for the urban poor, and community engagement in development projects. It examines the role of community participation and governance in a slum upgrading project and its influence on the provision of adequate housing. In terms of scientific relevance, it will provide empirical evidence to support the argument that community involvement is crucial for achieving better outcomes in the context of slum upgrading (Turner 1996; Imperato & Ruster, 2003; Hamdi, 2010). This will be done by analysing the impact of participatory in-situ interventions in enhancing the quality of housing and assessing the factors that contribute to positive housing outcomes. This study also contributes to the broader understanding of the multifaceted concept of ‘acceptability of outcomes’ (Ayala et al., 2019) within the context of slum upgrading. Additionally, it will also shed light on the importance of incremental growth in the context of slums and their relation to culturally and economically acceptable outcomes.

*Policy Relevance:* From a policy perspective, understanding how community participation influences acceptability of housing outcomes can help policymakers improve the process of involving beneficiaries and develop the required instruments to do so. The newer policy discourse of India under PMAY completely ignores the participatory in-situ approach and focuses only on on-site redevelopment and relocation, despite the lower acceptability rates of the latter. The in-situ slum upgradation project in Yerwada, Pune is regarded as a success by the Government of India and many international organisations. Research into this project could challenge the Indian governments’ narrative of what makes a successful project with regards to informal settlements.

## Chapter 2: Literature Review

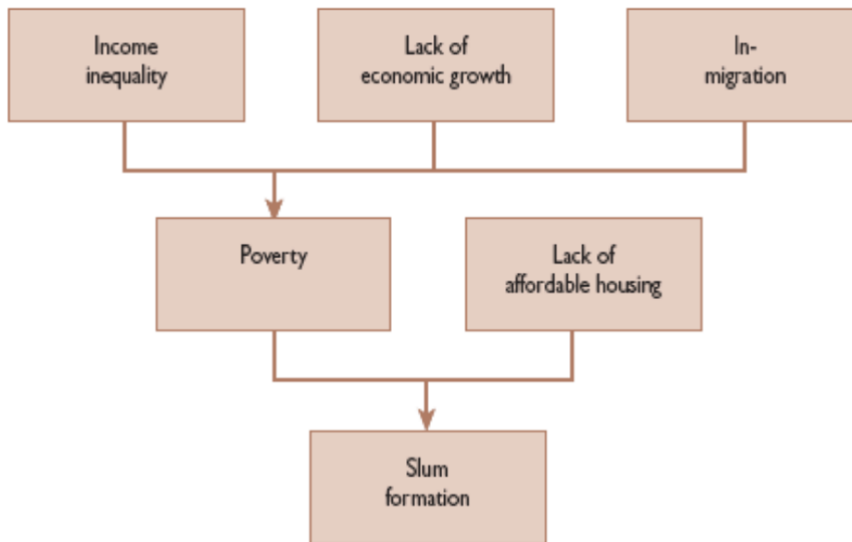
This chapter discusses the relevant theories and academic literature related to the concepts of the study. The first section gives a general overview about 'Slums' - their formation, definitions and characteristics. The second section looks at the concept of slum upgrading. It provides a brief overview about how slum upgrading evolved over the years, looks into what is considered to be today's best practice - participatory slum upgrading, and discusses the appropriate levels and policy instruments for participation in the context of slum upgrading. It also looks at incrementality and its impacts on slum upgrading project. The second section concludes by looking at the Indian government stance on slum upgrading within the policy discourse. The third section introduces the principle of 'Acceptability' of outcomes and discusses it within the 5A framework of housing adequacy. Then, it explores the links between participation and Acceptability of housing outcomes. Finally, the fourth section concludes this chapter by presenting a conceptual framework for this research based on the theories discussed in the first three sections.

### 2.1 Slums

In our world, it is estimated that nearly one in eight people live in slums, which is approximately around 1 billion people (UN Habitat, 2015), with India accounting for 65 million of this total slum population (Census of India, 2011). Slums are a global phenomenon that characterize many cities worldwide. They are usually present as pockets of high-density neighborhoods in the city center or on the outskirts, mostly deprived of public services and associated with informal land tenure (Brueckner et al., 2019). They are prevalent in rapidly urbanizing cities of the global south but can also be found in some marginalized and poverty-ridden areas in the global north. Across different contexts they are known by different names like favelas, jhopad-pattis, shantytowns, bustees, barrios, informal settlements, and many more. All these terms are synonymous to slums, but their connotations may differ in different contexts due to the complex and multifaceted nature of these settlements (Calderon, 2009). Understanding the dynamics, causes and impacts of slums is essential for developing comprehensive strategies to tackle the challenges that they pose.

#### 2.1.1 Slum Formation

The emergence and development of slums can be attributed to a combination of factors such as poverty, global urbanization, and the insufficient availability of affordable housing and essential urban services in cities (UN Habitat, 2003). Increased migration from rural areas in pursuit of better employment prospects have led to urban areas feeling the pressure of increased population, without the availability of adequate housing for all. As a result, the demand for shelter outpaces the supply, forcing many to settle in makeshift dwellings with limited access to amenities (Mahabir et al., 2016). Diagram 1 presents a simple representation the formation of slums, which is based on the relation between urban poverty and inability of the state to provide affordable housing options. Inadequate urban planning and infrastructure development exacerbate the issues, as informal settlements emerge in unplanned locations around the city. Insufficient availability public services, such as sanitation, water supply, and healthcare facilities further worsen the living conditions, making these settlements prone to health hazards and environmental challenges. Over time, slums become characterized by substandard housing, overcrowding, poor sanitation, and limited access to education and healthcare, amplifying the cycle of poverty and social exclusion (Mahabir et al., 2016).



**Diagram 1:** Formation of Slums.  
Source: UN Habitat, 2003, p.17.

### 2.1.2 Defining Slums

The definition of what constitutes a ‘slum’ is a contentious issue, and is subject to variation based on geographic location, context, and evolving urban dynamics. A universally accepted definition of a slum would be hard to reach due to their complexity, relativity, contextual variation and rapidly changing nature (UN-Habitat, 2003). However, all definitions look at slum dwelling as a way to “conceptualize and characterize urban deprivation” (Nolan, 2017, p. 59). According to the widely used operational definition provided by the UN-Habitat (2006, p.19), a slum is defined as "a settlement or form of housing that meets any one of five conditions: lack of clean water, lack of sanitation, non-durable construction, overcrowding, and insecure tenure’. Another international organisation, Cities Alliance (1999, p.9), define slums as “neglected parts of cities where housing and living conditions are appallingly poor. Slums range from high-density, squalid central city tenements to spontaneous squatter settlements without legal recognition or rights, sprawling at the edge of cities”.

This operational definition provided by UN Habitat has been widely used to define and identify slums but has also faced criticism in relation to being limited in scope. The first criticism is that this definition focuses solely on the physical criteria and neglects the crucial socio-cultural and economic dimensions that contribute to the formation and perpetuation of slums (Gilbert, 2007). Secondly, the absolute checklist method fails to account for complexities that are inherent to different slum contexts and does not adequately capture their diverse nature (Davis, 2006). This method also proves to be unsatisfactory to differentiate the between the huge varieties of slums worldwide. Additionally, this definition is criticised for its overemphasis on physical deficiencies which may stigmatize slum communities and reinforce negative perceptions. Taking these issues into account, recent literature advocates the need for a multidimensional approach to define slums which considers the social, economic and cultural dimensions and acknowledges that slums are complex and multifaceted urban phenomena (Abubaker et al., 2017).

## **2.2 Slum Upgrading**

The most common intervention styles to deal with slums have been negligence, eviction and clearance, in-situ slum upgrading, enabling policies, and resettlement (UN Habitat, 2003). Since the 1990s, in-situ slum upgrading has gained popularity as the most practical way to address the issues that slum dwellers experience (UN-Habitat, 2010; Iweka & Adebayo, 2015; Bah et al., 2018). In-situ slum upgrading can be defined as “an integrated approach that aims to turn around downward trends in an area. These downward trends can be legal (land tenure), physical (infrastructure), social (crime or education, for example) or economic” (Cities Alliance, 1999). It is based on the notion that keeping residents in these existing communities will benefit them socially and economically and that upgrading will facilitate their integration into the wider urban context (Belford, 2013).

### **2.2.1 Evolution of Slum Upgrading**

The first mentions of the concept of modern slum upgrading can be traced back to the works of John F.C. Turner. He argues that the solution to slums was not in their demolition, but in improving their environment (Turner, 1972). According to his theory, people living in slums would gradually improve their homes if governments could provide basic services and improve the hygienic standards, especially when encouraged by security of tenure and access to financing. Turner was very critical of top-down, bureaucratic and capital intensive schemes, and believed that for housing provision to occur at scale, the slum dwellers should be given control over design and execution (Turner, 1972). He advocated for the government to take a minimal role in house provision and just be the facilitators of the process. This concept came to be known as ‘self-help’ housing and heavily influenced World Bank’s first generation of projects targeted towards slums in developing countries (Mureithi, 2016). Support from the World Bank for upgrading projects in different cities helped in legitimizing the concept of slum upgrading (Patel, 2013).

After Turner, another important scholar whose work shaped the international housing policy was Hernando de Soto (Jones, 2012). His work highlighted the importance of tenure security and the importance of providing land titles. He argues that legal recognition of property rights will unlock the land capital’s potential and will encourage investment, access to credit and promote economic growth for the slum dwellers (de Soto, 2000). He also highlighted the social benefits of tenure security which are reduced conflicts and sense of stability. The combination of these two strategies of ‘self-help’ and ‘tenure security’ became known as what we call modern-day ‘slum upgrading’.

### **2.2.2 Components of Slum Upgrading Outcomes**

Some key components of modern-day slum upgrading outcomes include - Housing improvement in terms of physical conditions; providing access to basic services like water, electricity, sanitation and healthcare; neighbourhood infrastructure development in the form of roads, drainage systems, street lighting; provision of community and social facilities like schools, healthcare centres, community centres, parks; and lastly, provision of tenure security (Turley et al., 2013). However, many critics argue that only providing access to physical infrastructure and tenure security is not enough and that it lacks a long-term vision for socio-economic upliftment of the informal settlements. As awareness of the impact of slums on cities and their inhabitants grew, the emphasis on slum upgrading changed from a solely infrastructure-driven strategy to a more comprehensive one that included social inclusion and



community engagement. These initiatives aimed to create income-generating activities, provide vocational training and support small-scale enterprises, empowering residents to improve their economic prospects (Bah et al., 2018).

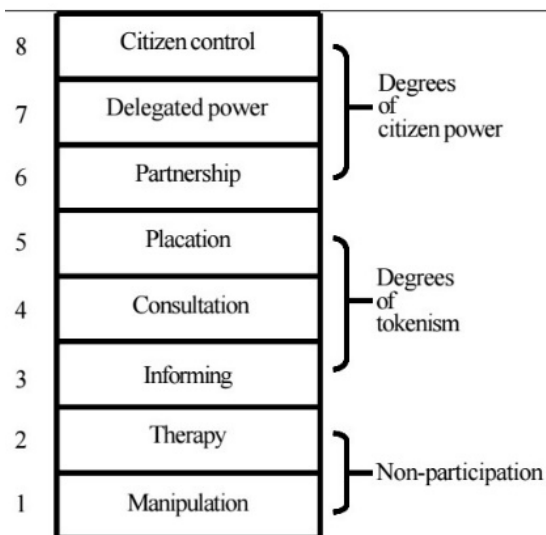
### **2.2.3 Participatory Slum Upgrading**

The idea of participatory slum upgrading is based on the notion that community participation is essential to achieve better development outcomes (Turner 1996; Hamdi, 2010). According to Meredith & Macdonald (2017), all slum literature shares the common theme that top-down methods of slum upgrading have been unsatisfactory. The popularity of community-led improvement projects has grown since the late 1990s. With these bottom-up interventions, ‘the people’ are acknowledged as key players in trying to improve their conditions (Yeboah et al., 2021). The participatory approach brings together different stakeholders - community representatives, government authorities, private organisations, NGOs and landowners, and involves them in the decision-making process. This involvement empowers the slum dwellers by increasing their level of knowledge, influence, and giving them control of their livelihood (Keivani, et al., 2012). In the context of slum development projects, Imperato and Ruster (2003, p.20) define participation as “process in which people are involved at different levels and degrees of intensity in the identification, timing, planning, design, implementation, evaluation, and post-implementation stages of development projects.”

A project life cycle can be broken down into four phases - identification, planning, execution, and monitoring (Satyanarayana, 2008). The type and extent of participation during all phases varies with different approaches. One perspective looks at participation as a strategy to include people and their expertise to enhance the project success (Imperato & Ruster, 2003). Another perspective looks at participation as just a strategy to get people to agree on what has already been decided, which is dubbed as ‘social control’ (de Vries, 2016). Depending upon the extent of involvement, participation can take place through different forms like community meetings, advisory committees or simply public information campaigns (Bishop and Davis, 2003). While looking at participatory slum upgrading projects it is important to examine the participation approach and related policy instruments.

### **2.2.4 Levels of Participation**

Arnstein (1969, p.216) argues that citizen participation is a “categorical term for citizen power”. She says that participation is only useful when there is a transfer of power from government to citizens and all stakeholders should be involved equally in the decision making process. In order to describe the disparities in the decision-making process she developed the ‘ladder of citizen participation’. This ladder consists of eight rungs of participation, based on citizen involvement (Diagram 2). It shows participation as a continuum, ranging from non-participation to full involvement. The bottom rungs of the ladder - manipulation and therapy, are described as levels on non-participation. The three middle rungs – Informing, Consultation and Placation, progress to levels of tokenism. In these levels, citizens may be heard but lack real power to make decisions. Further up are levels of citizen power – Partnership, Delegated Power and Citizen control. These levels range from allowing citizens to enter into a partnership to giving them full control of decision making.



**Diagram 2:** Ladder of Participation.  
Source: Arnstein, 1969, p.217

Arnstein’s model was one of the earliest theories of participation and has played a significant role in shaping discussions on citizen participation. According to Arnstein, participation occurs only from the sixth rung and above and is meaningful only when there is a transfer of power from the government to the citizens. However, this was criticized for being unrealistic, and for not acknowledging the government’s role. Many authors say that participation lies between total administrative control and direct democracy. It is important to note that “the more participation the better” is not true in every case and during every phase (Imperato & Ruster, 2003). Aiming for the highest possible level of participation during every phase is not beneficial nor is it feasible for the community.

According to the approach developed by Goethert (1998), participation can take different forms ranging from Indirect (Informing) to Full Control, during different stages of the project, based on the situation at hand. This approach has identified five different levels of participation that can be applied to slum development projects (Diagram 3). Goethert’s matrix is an important tool to assess different levels of participation during different phases of the project, and the degree of community and outsider role. Depending on the circumstances of project formulation and implementation, participation may be limited to consultation and information in some aspects of the project and may reach shared control or full control during others.

Level of Participation	Community Role	Outsider Role
NONE	-	SURROGATE
INDIRECT	<	ADVOCATE
CONSULT	INTEREST GROUP  <	ADVOCATE
SHARED CONTROL	STAKEHOLDER  =	STAKEHOLDER
FULL CONTROL	PRINCIPAL  >	RESOURCE

**Levels of the Matrix**

- Levels indicate relationship of community to outsiders
- Levels range from no community control to full community control

**Diagram 3:** Levels of Participation.  
Source: Goethert, 1998 in Imperato & Ruster, 2003, p.23

## 2.2.5 Instruments for Participation

Bishop and Davies (2003) propose a set of policy related instruments based on the contemporary participation types (Diagram 4). Participation as control allows the citizens to make choices using a referendum and gives them the complete power to make decisions. Participation as partnership or Delegation allows citizens to enter the policy making process through advisory committees, policy communities and allow them to make choices that shape the product. Participation as Information and Consultation allow the citizens to be a part of the process by either just informing them using public information campaigns, or by consulting them using community meetings.

Information	Consultation	Partnership	Delegation	Control
<ul style="list-style-type: none"> <li>• surveys</li> <li>• focus groups</li> <li>• public information campaign</li> </ul>	<ul style="list-style-type: none"> <li>• key contacts</li> <li>• interest group meetings</li> <li>• town hall meetings</li> <li>• circulation of proposals</li> <li>• public hearings</li> </ul>	<ul style="list-style-type: none"> <li>• advisory committees</li> <li>• policy communities</li> </ul>	<ul style="list-style-type: none"> <li>• public enquires</li> <li>• impact assessment studies</li> </ul>	<ul style="list-style-type: none"> <li>• referenda</li> </ul>

**Diagram 4:** Policy Instruments for Participation.  
Source: Bishop and Davies, 2003, p.21

## 2.2.6 Incrementality in Slum Upgrading

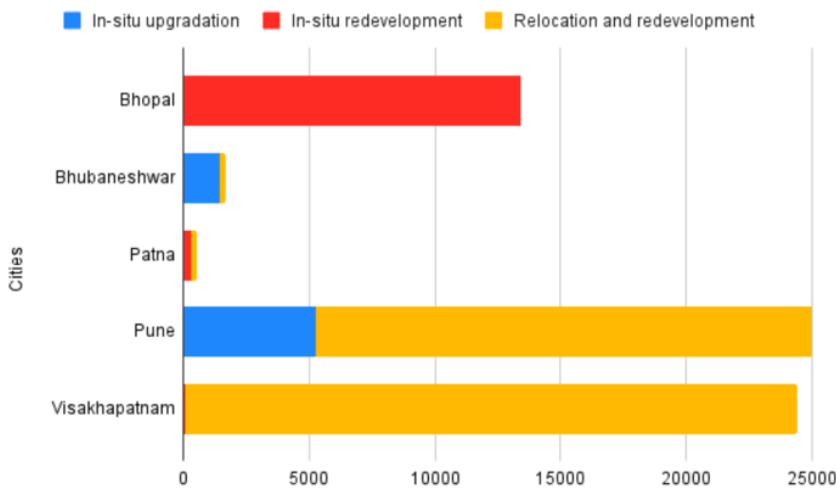
Incremental housing is seen as the basis for socially relevant housing solutions to address the housing shortage in the Global south (Noorloos et al., 2020). Adler and Vera (2018, p.485) describe incremental housing as “a strategy based on a progressive system, where construction is incomplete but in conditions of habitability”. In this type of housing, houses are designed in a way that the residents are free to make additions and improvements based on their own requirements and according to their financial ability (Noorloos et. Al, 2020). Introducing this concept of incrementality within slum upgrading interventions is seen as beneficial to the beneficiary as well as the government. It reduces the cost of initial investment significantly for the stakeholders and allows the beneficiaries to express their individuality through their dwelling unit (Rigon, 2022). Usually, in the case in in-situ slum upgrading, the scope to incrementally build horizontally is limited due to space constraints. Hence, vertical incrementalism is usually preferred in this context. This can be done by designing the initial structures to accommodate higher load, allowing the residents to grow their unit vertically as and when they need it. Another way to incorporate incrementality in slum upgrading is to just provide a bare shell structure and allow the residents to complete the remaining structure.

## 2.2.7 Slum Upgrading in India

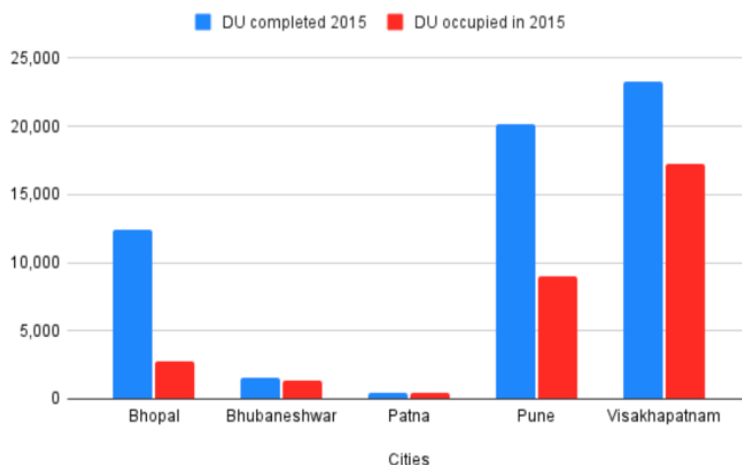
The government of India has introduced several policies since independence regarding informal settlements, which form an integral part of all Indian cities. Improving conditions of the urban poor has been one of the biggest challenges faced by the government of India (Khan, 2021). The national slum policy discourse in India has heavily been influenced by global underpinning and theories (Andavarapu and Edelman, 2013). Two of the biggest national policies – Basic Services for the Urban Poor (BSUP) under the Jawaharlal Nehru National

Urban Renewal Mission (JNNURM), and Pradhan Mantri Awas Yojana (PMAY), are crucial to understand the perspective of the Indian government towards affordable housing provision. Before looking at both the policies, it is important to note that India follows a decentralized governance structure, and the central government can only influence the states through national policies and centrally sponsored schemes. Every state is free to propose its own laws and policies for slums, which may or may not end up aligning with the national policy (Burra, 2005).

The BSUP program, which was launched in 2005 is considered to be the first nationwide urban development program. The mission statement of BSUP claimed to prioritize in-situ slum upgrading with basic service provision through community participation. However, the ground reality was different. The outcomes of the projects undertaken under BSUP involved more of slum redevelopment projects instead of upgrading (Patel, 2013) (see Figure 1). This involved conventional contractor-built apartment style housing either on-site or involving relocation (Patel, 2013, Burra et al., 2018). Most of the projects did not involve the beneficiaries and participation was seen as merely providing information (Mitra, 2021). A large gap was seen between the policy discourse and policy implementation in the case of BSUP (Mitra, 2021) The outcomes of the project were heavily criticized with many beneficiaries reluctant to move into the newer houses, leading to a large number of vacant houses (see Figure 2). Very few projects abided by the mission statement and were considered successful by doing so.



**Figure 1:** Number of households provided under different categories under BSUP. Source: Mitra, 2021 (derived from Burra et al., 2018), p. 26.



**Figure 2:** Number of dwelling units completed and occupied. Source: Mitra, 2021 (derived from Burra et al., 2018), p. 31.

After the change in political party in 2015, RAY (successor of BSUP) was discontinued and the new scheme PMAY (Pradhan Mantri Awas Yojana) was launched with the tagline ‘Housing for All’. The PMAY set a quantitative number to the number of dwelling units to be completed by the year 2022, which was 2 crores (20 million), later changed to 1 crore (10 million). The early reports measuring the outcomes of PMAY suggest that it is far behind in achieving its quantitative outcomes due to the slow pace of implementation. PMAY has four policies under it, which include in-situ slum redevelopment (ISSR), affordable housing through public-private partnership (AHP), credit linked subsidy scheme (CLSS) and, subsidies for beneficiary led construction (BLC). CLSS and BLC components require land ownership which is largely lacking amongst the slum dwellers. AHP houses were primarily built on the outskirts due to affordability issues and are currently facing reluctance from the slum dwellers for moving in due to the relocation component. Furthermore, there have been no efforts in the new policy to involve the beneficiaries in the process of housing provision. In-situ slum upgrading was completely removed from PMAY, despite the success of the few projects that took place under BSUP. Even though only limited slum upgrading projects were taken up under BSUP, they were considered as sustainable and acceptable practices (Mitra, 2021), which was completely ignored by the new policy. Due to these issues, it is being predicted that PMAY will face similar issues of vacant houses as seen in BSUP (Mitra, 2021).

In conclusion, we can see that in-situ slum upgrading and beneficiary participation remains ignored in policy discourse of PMAY, despite its importance being highlighted in the policy discourse of BSUP, as well as the success of the limited projects that were executed under it. The current policy favors in-situ slum redevelopment which involves demolition of the slum and construction of a new building which is usually an apartment style complex. Community participation is not addressed in the new policy, which may again lead to outcomes that will not be accepted by the slum dwellers (Burra et al., 2018; Mitra, 2021)

### **2.3 Housing Adequacy**

Housing Adequacy is a multi-dimensional concept which is determined by contextual factors and has been interpreted in different ways by various authors (Ibem & Alagbe, 2015; Ayala et al., 2019). The International Human rights law recognizes ‘adequate housing’ as one of the most basic human rights (Pandey, 2012). Considering the qualitative dimensions, Ibem & Alagbe (2015), define adequate housing as “residential environment that is habitable and promotes healthy, safe and secured living conditions as well as the economic and cultural well-being of individuals, households and communities”. It is important to note that housing conditions considered adequate in one context may not be the same in another. Several theories and frameworks have been developed to explain housing adequacy. Ayala et al. (2019) have developed the 5A principal framework of adequate housing – The 5A’S, to address and evaluate the process and outcomes of housing policies. These principles are Availability, Accessibility, Affordability, Acceptability & Adaptability. The 5A’s aim at establishing approaches that lead to the notion of housing justice, which is defined as ‘adequate housing for all’ (Ayala et al., 2019).

### **2.3.1 Acceptability of Housing Outcomes**

‘Acceptability’ of housing outcomes refers to the degree to which a project is perceived as relevant, appropriate, and effective by the local community or stakeholders. Ensuring acceptability of outcomes is essential for the long-term sustainability of the project (Ayala et al., 2019). In the context of slum upgrading, acceptability refers to the physical, socio-cultural, and economic dimensions as well as people's perceptions of fairness of the upgrading process (Ayala et al., 2019). Jaitman and Brakarz (2013) have proposed a comprehensive set of indicators to measure housing outcomes from the community's perspective. The outcomes of the physical dimension can be categorized into individual and neighbourhood levels, and they focus on the quality of dwelling unit construction and accessibility to urban infrastructure. The socio-cultural dimension looks at characteristics such as the presence of cultural community groups and the frequency of utilization of community spaces. Additionally, they also incorporate individual attributes such as a sense of belonging and perceived safety and security within the neighbourhood. The economic dimension assesses the increase in income levels and the availability of employment opportunities resulting from the slum upgrading initiative. These indicators allow for a holistic assessment of acceptability of outcomes, considering the physical, socio-cultural and economic aspects of the housing outcomes.

#### **2.3.1.1 Physical Acceptability**

Physical acceptability of slum upgrading outcomes is a crucial aspect that directly impacts the living conditions and health of the slum dwellers. It refers to the extent to which upgraded houses meets the basic standards of safety, quality and functionality. A study conducted by Vaid (2023) emphasizes that physical improvements such as good quality construction materials, improved ventilation and adequate living space, contribute to overall health outcomes and improve quality of life of local slum residents. Another study conducted by Turley et al. (2013) found that improving access to clean water, health, sanitation and reliable electricity significantly improved physical well-being of slum dwellers. In addition to the dwelling unit level, physical acceptability of slum upgrading outcomes also encompasses improvements at the neighbourhood level. Upgraded roads can facilitate better connectivity within the slum and with the broader urban context, making it easier for residents to access essential services, job opportunities, and educational institutions (Turley et al., 2013). Provision of recreational and green spaces in the neighbourhood also contribute to the overall well-being of the neighbourhood. Thus, physical acceptability is necessary as it addresses the deficiencies of slum conditions and provides habitable living environment for residents, ultimately fostering sustainable development.

#### **2.3.1.2 Socio-Cultural Acceptability**

Socio-cultural acceptability of slum upgrading outcomes considers the social and cultural dimensions of the community, and ensures that the interventions align with the values, preferences and needs of the residents. Incorporating community spaces and preserving cultural heritage during slum upgrading contributes to a stronger sense of identity among the residents (Keskar, 2023). Housing outcomes not being culturally acceptable may lead to potential disruptions among the community, and in some cases total rejection of the project (UN-Habitat, 2015). It is extremely necessary to ensure that the upgraded outcomes respect the cultural identity and social fabric of the community. By considering these dimensions, slum upgrading

projects can create inclusive and vibrant neighbourhoods that promote social integration and community well-being.

### **2.3.1.3 Economic Acceptability**

Economic acceptability focuses on affordability, cost-effectiveness and economic viability of the interventions for the residents of the community (Okitasari et al., 2022). It ensures that the outcomes of the project are financially feasible and sustainable for the community. In order to achieve this, it is essential to improve access to housing finance instruments like loans and subsidies so that the slum dwellers can afford the housing provision initiatives (Turley et al., 2013). The slum upgrading initiatives should not just focus on improve the physical outcomes but also take into consideration the economic capacity and livelihoods of the beneficiaries. If the living and maintenance costs post upgrading are too high, then the outcomes are not sustainable. Providing income generating opportunities through training and workshops are also instrumental in enhancing the economic prospects of the community (Turley et al., 2013). This will help in empowering the slum dwellers with means to earn a sustainable income and reduce dependence on informal sources, eventually alleviating poverty.

### **2.3.2 Acceptability in the 5A Framework**

The 5A principles of adequate housing are interlinked, and improving one dimension can significantly impact the others. This research explores the principle of ‘Acceptability’ in the context of slum upgrading outcomes. In order to better understand how the acceptability principle contributes to housing adequacy, it is important to look at its relationship with the other 5A principles.

*Affordability* – Affordability is intrinsically linked to acceptability, as slum dwellers often face financial constraints. Affordability extends beyond the initial costs of upgrading and considers ongoing expenses, including maintenance and utility costs which should be manageable for the residents (Ayala et al., 2019). To achieve affordability, slum upgrading projects should consider community-specific income levels, implement cost-effective solutions, and explore financial support mechanisms (Rigon, 2022). Acceptable housing outcomes should not only meet the residents' needs in terms of physical quality and spatial layout but also be economically viable for the community.

*Availability* – Availability refers to the presence of an adequate supply of upgraded housing and infrastructure solutions (Ayala et al., 2019). Acceptable outcomes should be available in sufficient quantities to meet the demands of the slum dwellers. Adequate availability of housing options reduces overcrowding and enhances living conditions, contributing to the overall acceptability of the outcomes. The location of upgraded housing is another important dimension that affects acceptability. For example, if the housing location is far away from employment opportunities, the residents will have to spend extra time and money on transport, thus reducing the acceptability of outcomes.

*Accessibility* – Ensuring accessibility of the upgraded housing to essential services, employment opportunities, and social amenities is an important aspect of acceptability. Slum upgrading should prioritize the provision of basic infrastructure, such as paved roads, access to clean water, and reliable public transportation, to enhance accessibility (UN-Habitat, 2016). By improving accessibility, slum dwellers can access opportunities for socio-economic growth and lead more fulfilling lives, further contributing to the acceptability of the housing outcomes.

*Adaptability* - Adaptability, as a principle of adequate housing, refers to the capacity of housing solutions to accommodate changes over time and respond to the dynamic needs of the community. Acceptable housing outcomes should be adaptable to various life stages and evolving household requirements. Incorporation of incremental development is one way to make outcomes more adaptable to the resident's needs (Noorloos et. al, 2019). It allows residents to make personalized modifications to their dwellings as and when they need, thus making outcomes acceptable as well.

### **2.3.3 Participation and Acceptability**

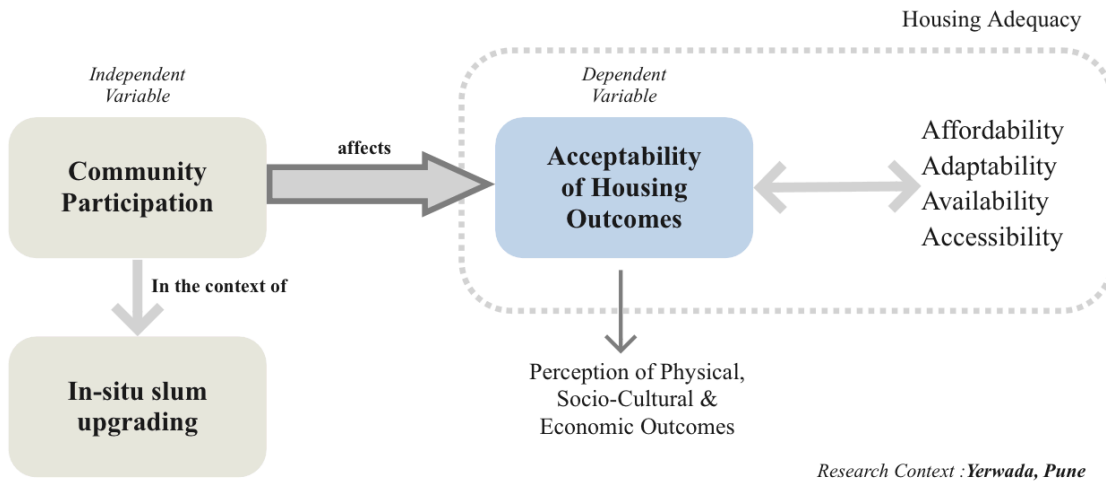
Academic literature suggests that community participation plays a significant role in influencing the acceptability of outcomes in the context of slum upgrading (Imperato & Ruster, 2003). Solutions are likely to be more effective when beneficiaries are involved in the decision-making process during all stages of the project. If the residents are given a 'freedom of choice' during the process, then it is more likely that they will accept the outcomes of the project. Furthermore, the views and preferences of housing occupants may differ from those of experts and planners involved in the design and management of housing projects (Chohen et al., 2010). Therefore, involving them in the process and incorporating their preferences may lead to higher rates of acceptability, thus achieving sustainable outcomes.

Meaningful participation fosters a sense of ownership and empowerment among the residents, which enhances acceptability as residents feel that their needs have been considered (Imperato & Ruster, 2003). Slum dwellers also possess valuable knowledge about the challenges, aspirations, cultural practices and social dynamics. Engaging them in the process ensures that their knowledge and perspectives are put to use which results in more contextually appropriate and culturally acceptable outcomes. Many times, residents living in the slums are working in the construction sector and have knowledge about methods of construction as well as material sourcing. Involving them can significantly reduce construction costs, thus making the outcomes more economically acceptable.

## **2.4 Conceptual Framework**

The conceptual framework as presented in Diagram 5 depicts the relation between the main concepts that appear in the research question. Community participation in the context of slum upgrading in Yerwada forms the independent variable of the study, and acceptability of housing outcomes forms the dependant variable. Drawing inspiration from the literature presented in this chapter, the framework emphasizes how participatory in-situ upgrading influences the overall acceptability of housing outcomes (Imperato & Ruster, 2003). Acceptability includes the physical, socio-cultural and economic dimensions for a holistic understanding of the housing outcomes. This pivotal linkage of participatory slum upgrading, and acceptability further extends into the broader framework of the 5As (Ayala et al., 2019) and its connection with affordability, adaptability, availability and accessibility, thus contributing collectively to shape 'Housing Adequacy' within the slum context. The conceptual framework recognizes that acceptability of housing outcomes isn't isolated but deeply connected with these key dimensions.





**Diagram 5:** Conceptual Framework.  
Source: Author (2023)

## **Chapter 3: Research Design**

This chapter will outline the strategy used for conducting the research. Based on the research strategy, it will describe the methods used for collecting data and also provide a description of the collected data and the data analysis method. Then, the concepts proposed in the conceptual framework are operationalized and presented in the form of a table which will help us address the research questions. Finally, the validity and reliability of this research are discussed along with its limitations.

### **3.1 Research Strategy**

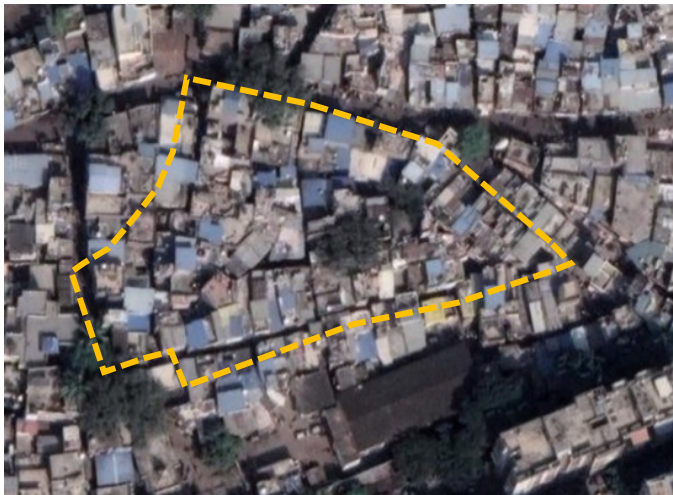
Research strategy refers to the approach adopted by the researcher to address the research question. It depends on the nature of the research question and resources available to the researcher (van Theil, 2014). The research strategy employed in this study is aimed at addressing the research question of how participatory in-situ slum upgrading contributes to the acceptability of housing outcomes. To achieve this, an explanatory research design was chosen, as it goes beyond mere description and seeks to understand the underlying reasons behind the observed relationships between variables (Bhat, 2023). Specifically, a case study approach was adopted, allowing for an in-depth and detailed examination of the Yerwada slum upgrading project, the specific case under investigation (Bryman, 2012). A qualitative data collection approach was adopted as it provides a nuanced understanding of the communities' perspective and experience towards the slum upgrading project and its impact on the physical, socio-cultural, and economic acceptability of the housing outcomes. By combining the case study design with qualitative data collection, this research strategy aims to provide a comprehensive and contextual analysis of how participatory slum upgrading shaped acceptability of outcomes in Yerwada.

### **3.2 Data Collection Methods**

Case studies often involve the use of multiple data sources like interviews, questionnaires, observations and document analysis (Bryman, 2013). This study involved collection of data from a combination of primary and secondary sources. Semi-structured In-depth interviews and questionnaires were used to collect primary qualitative data from the beneficiaries of the project. The in-depth interviews were conducted with open-ended questions for the residents to share their experiences and perceptions in detail. Questionnaires with open and close-ended questions were distributed to collect demographic data, as well as data on various aspects of acceptability, such as physical quality of housing, access to basic services, and socio-economic outcomes. Additionally on-site observations were conducted to document the physical changes, incremental developments, and community interactions taking place within the community. This was done using photo documentation. Finally, secondary data in the form of documents published by the architects and NGOs team, as well as video lectures made available by the project architects were used to gain information about the initial stages of the project. The triangulation of data from different sources – primary data from interviews and questionnaires, on-site observations, and secondary reports and lectures, will make the findings more robust and enhance internal validity.

### 3.3 Sample Selection

Fieldwork was conducted for a period of three weeks in June 2023. Seven slum neighbourhoods in Yerwada and a total of 1200 units were upgraded as a part of the slum upgrading project in 2012. Due to time constraints, this study was focused only on one neighbourhood – Netaji Nagar (Image 6). This neighbourhood was chosen because it was the pilot project of the upgrading programme. The estimated population of Netaji Nagar is 925 people) with a predominantly Hindu population (MoHUPA, 2022). Netaji Nagar consists of a total of 207 dwelling units, out of which 130 *kuccha* units were upgraded in 2012. The units that were not upgraded were the already existing *pucca* units.



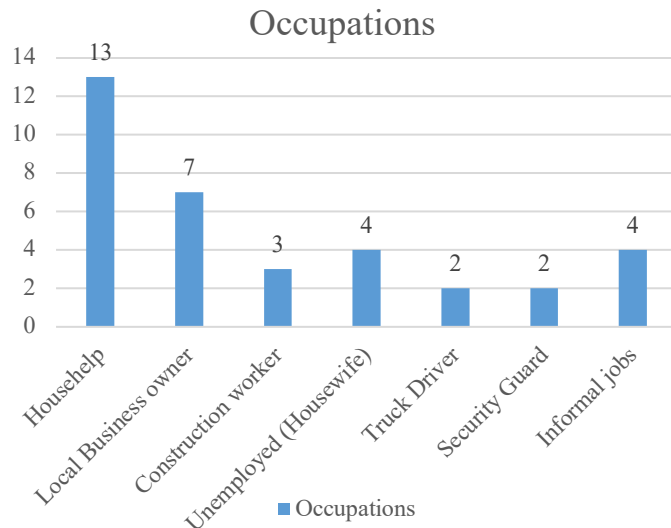
**Image 6:** Netaji Nagar.  
Source: Google Earth (2023)

Semi structured In-depth interviews were conducted with 8 residents of the community. A snowball sampling technique was employed to select respondents for the interview. As the upgrading project took place 10 years ago, residents that had direct involvement and knowledge of the slum upgrading process were chosen for the semi-structured interviews to get the most reliable data. Table 1 presents a brief profile of respondents chosen for the interview. A majority of the respondents chosen for the interview were females (6 out of n = 8). The interviews were conducted in the dwelling units of the respondents on in the neighbourhood community spaces, as per the preference and comfort of the respondent. Further data was collected in the form of a questionnaire.

Respondent No.	Sex	Age	Years of Residence in Yerwada	Occupation
R1	Female	46	Since birth	House help
R2	Female	64	Since birth	House help
R3	Female	41	20 years	Grocery store owner
R4	Female	45	Since birth	House help
R5	Male	32	Since birth	Construction worker
R6	Male	55	Since birth	Grocery store owner
R7	Female	40	Since birth	Housewife
R8	Female	65	Since birth	Business owner

**Table 1:** List of Respondents for semi-structured Interview.  
Source: Author (2023)

The questionnaire was distributed randomly by the researcher to different households that were upgraded. Out of the 130 houses (N) upgraded in Netaji Nagar in 2012, the survey questionnaire was distributed to household representatives from 35 (n) households (27% of total upgraded households). Out of the total respondents, 63% were female (22 out of n=35) and 37% respondents were male (13 out of n=35). Figure 3 presents a summary of the respondents based on their occupation. Most of the respondents were either local business owners (grocery store, salon, local supplies, etc) or doing jobs like house-help, security guard, drivers, etc.



**Figure 3:** Occupations of Respondents from the questionnaire  
Source: Author (2023)

### 3.4 Data Analysis Method

Data Analysis for the in-depth interviews and questionnaires was done using thematic analysis, which is a widely used method for identifying and analysing patterns and themes within qualitative data (Braun and Clark, 2012). For the interviews, the first step was to translate and transcribe verbatim, which helped in getting myself familiarised with the data. Then, a process of deductive coding was undertaken, based on the dimensions and indicators from the operationalisation table. The coding was undertaken on Atlas.Ti, which is a computer-assisted qualitative data analysis software (CAQDAS) (Refer Appendix 4 for the codebook). The themes identified from the coding process were then described in detail and supported with verbatim quotes from the interviews. The responses from the questionnaire were first digitised into a spreadsheet, and checked for any inconsistencies or outliers. Descriptive statistics were used to summarize and present the data using appropriate charts and graphs. These statistics were used to analyse and interpret the variables from the operationalisation table.

### 3.5 Operationalisation

This section will translate the concepts mentioned in conceptual framework into measurable indicators that will help us in answering the research questions. First, the operational definitions of the three main concepts of this study – community participation, in-situ slum upgrading and acceptability of housing outcomes are presented. Then the operationalisation table for each of the concepts is presented that correspond to the three sub-research questions, eventually allowing us to address the main research question – ‘How did the participatory in-situ slum upgrading process in Yerwada contribute to the acceptability of housing outcomes?’

### 3.5.1 Operational Definitions

*Community Participation* : In the context of slum upgrading, community participation refers to the process that allows the slum dwellers to be a part of the decision-making process across different stages of the project such as planning, design, implementation and evaluation. The levels of participation (Goethert, 1998), degree of intensity during each level (Imperato and Ruster (2003), and instruments used to facilitate the process (Bishop and Davies, 2005) may vary during each stage depending on the situation at hand.

*In-situ Slum upgrading* : In-situ slum upgrading refers to a strategy that is aimed at improving the living conditions of the residents living in informal settlements while maintaining their current geographic location. The tangible outcomes of in-situ slum upgrading can be measured at the individual unit level and neighbourhood level, as well as in terms of tenure security (Turley et al., 2013).

*Acceptability of Housing Outcomes*- ‘Acceptability’ of housing outcomes refers to the degree to which a project is perceived as relevant, appropriate, and effective by the local community or stakeholders. Acceptability can be measured in terms of physical, socio-cultural and economic dimension to ensure a wholistic understanding of the housing outcomes (Ayala et. al, 2019)

### 3.5.2 Operationalisation of variable - Community Participation

Research Question	Variable	Dimension	Indicator	Data Collection Method
What forms of community participation were involved during all the stages of the Yerwada slum upgrading project?	Community Participation	All Stages	-Level of Participation -Instruments used -Degree of Participation	Secondary Reports, Video Lectures Questionnaire
		Planning	-Frequency of participation in meetings - Proportion of members contributing to the decision-making process - Participation in developing design options -Participation in budget and scheduling	Secondary Reports, Video Lectures Questionnaire, In-depth interview with community members,
		Implementation	-Financial contributions made by community members -Involvement in construction process (Physical Labour)	
		Evaluation	- Involvement in evaluation and monitoring process (quality checks	

**Table 2:** Operationalisation of variable – Community Participation.  
Source: Author (2023)

### 3.5.3 Operationalisation of variable - In-situ slum upgrading

Research Question	Variable	Dimension	Indicator	Data Collection Method
What were the housing outcomes of the in-situ slum upgrading strategy adopted for slum upgradation?	In-situ slum upgrading	Individual Unit	-Unit Typology and design -Construction Materials -Access to water, electricity and drainage -Incrementality <ul style="list-style-type: none"> <li>- Number of households that have developed incrementally</li> <li>- Functions of these spaces</li> </ul>	Secondary Reports, On-site observations, Photographic documentation, Questionnaire
		Neighbourhood Level	-Community and recreational Spaces -Neighbourhood infrastructure <ul style="list-style-type: none"> <li>- Roads</li> <li>- Street Lighting</li> <li>- Public Schools</li> <li>- Hospitals</li> <li>- Open Spaces</li> </ul> -Total no. of Pucca houses after upgrading	Secondary Reports, On-site observations, Photographic documentation
		Tenure Security	-Land Titling -Completion certificates	Questionnaire

**Table 3:** Operationalisation of variable – Housing Outcomes of In-situ upgrading.  
Source: Author (2023)

### 3.5.4 Operationalisation of variable - Acceptability of Housing outcomes

Research Question	Variable	Dimension	Indicator	Data Collection Method
What was the communities' perception regarding the 'acceptability' of the housing outcomes?	Acceptability of housing outcomes	Physical Acceptability	- Satisfaction with housing quality -Improvement of living conditions post-upgrading -Satisfaction with service provision (water, electricity, drainage)	Questionnaire, In-depth Interview
		Socio-cultural Acceptability	-Sense of belonging -Perception of safety and security -Perception of social cohesion -Presence of cultural community groups -Participation in communal activities and festivals -Usage of communal spaces	Questionnaire, In-depth Interview
		Economic Acceptability	-Improvement in economic conditions -Employment Status -Employment Opportunities -Financial burden caused by the 10% monetary requirement - Avg. Monthly Expenditure on housing related costs	Questionnaire, In-depth Interview

**Table 4 :** Operationalisation of variable – Acceptability of Housing Outcomes.  
Source: Author (2023)

### **3.6 Validity and Reliability**

This research project was based on one case study (Yerwada Upgrading project) and used qualitative data for analysis. The experiences and perceptions of community members are unique and are specific to the socio-cultural dynamics of Yerwada. The findings of this research cannot be universally applicable and are difficult to generalize. Therefore, this project has low external validity. However, the context-specific nature of these findings build upon the slum-upgrading literature and may have potential implications for similar slum upgrading projects.

Various steps were taken to ensure internal validity of the research. Firstly, multiple methods such as interviews, questionnaires, on-site observations and secondary reports, were used for the purpose of data collection. Using multiple methods helps triangulate the data and provides a more comprehensive understanding of the research topic. Secondly, for the purpose of the interviews, a purposive sampling technique was employed to select participants having direct involvement in the project to increase the validity and reliability of the findings. This was accompanied by questionnaire distributed to a random sample of the population, irrespective of their involvement in the project, to avoid a potential bias in the results.

A systematic data collection protocol was followed to ensure reliability of findings. An interview guide (refer Appendix 2) was developed for the semi-structured interviews to ensure consistency in data collection across participants. All research related data like interview recordings, questionnaire forms, site photographs and codebook were systematically maintained by the researcher. Interviews were conducted in the homes of the participants, and at timings suitable to the respondents to ensure that they are comfortable. Going to the site personally helped in building a rapport with the community, which helped in ensuring that the answers given in the survey and questionnaire are genuine. Additionally data triangulation helped in strengthening reliability by reducing the risk of individual bias.

### **3.7 Limitations**

Findings from this research project in Yerwada are specific and unique to the context of Yerwada and may not be directly applicable to other contexts. It is important to acknowledge this contextual limitation related to generalization of findings beyond the scope of this study. Additionally, due to time and resource constraints, this study was conducted in only one of the total seven neighbourhoods that were upgraded. The perspectives and experiences of participants from this neighbourhood may not fully capture the diversity of entire community of slum dwellers in Yerwada. This research aimed to look at the post occupancy conditions of Yerwada and was conducted after almost 10 years after the project was completed. Therefore the respondents may have limited ability to recall events that took place long ago. This was overcome by selecting respondents for interviews that were actively involved in all stages of the project. Lastly, another limitation of this study is the absence of direct interviews with the principal architect and members of the NGO team due to availability issues. While the study extensively engaged with the perspectives of the slum dwellers, direct interviews with these key stakeholders would have further enriched the findings of the study. This limitation was overcome by collecting data from official reports published by the NGO and architects team, as well as from video lectures and online interviews given by the principal architect related to this project.

## Chapter 4: Findings and Analysis

This chapter presents the results and findings of this research. The research findings are based on the analysis of primary data collected during on-site fieldwork as well as data collected through secondary sources. The chapter is divided into three sections which sequentially address the three sub-research questions. The first section describes the participatory process that took place in Yerwada and the levels of participation during each phase of the project. It also looks at the communities' perception of this process. The second section describes the outcomes of the in-situ upgrading project by looking at the individual unit level as well as the neighbourhood level. The third and final section looks at the physical, social and economic 'acceptability' of these outcomes from the communities' perspective and analyses how the participatory in-situ upgrading project shaped the acceptability.

### 4.1 The Participatory Process

This section will answer the first sub-research question 'What forms of community participation were involved during all the stages of the Yerwada slum upgrading project?' (Refer Operationalisation Table 1). The first sub-section gives a broad overview of the participation and following sub-sections will describe in detail the participatory process that took place during every stage of the project - Identification, Planning, Execution, and Evaluation.

#### 4.1.1 Brief Overview of Participation

Community participation played an important role in the slum upgrading project of Yerwada. According to Prasanna Desai, the lead architect of the project, 'participation' was kept at the core of the process, with the intent of developing a sense of ownership among the community (Desai, 2013). This would help in maintaining and nurturing assets in the future, thus achieving sustainable process of building. This project was the first time that the communities' voice was heard in Yerwada, and they had a say in the process. Based on data collected through the questionnaire, interviews, as well as secondary reports published by the architects' team and

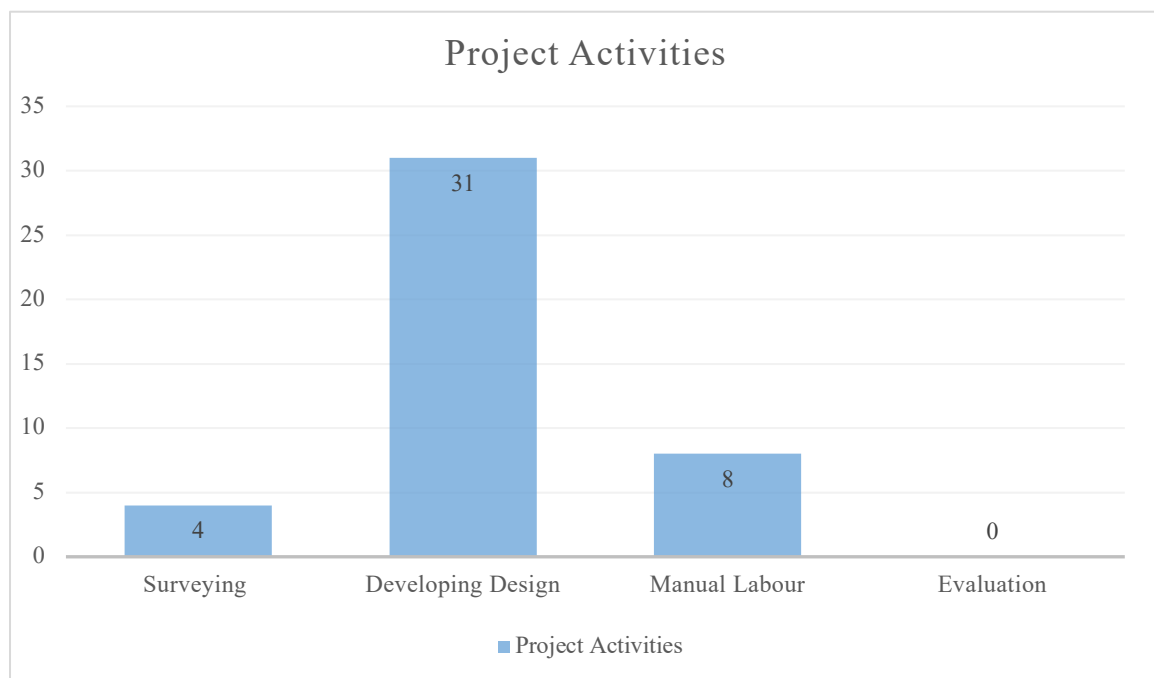
Stage in Project Cycle	Level of Participation (Goethert, 1998)	Degree of Intensity (Imperato & Ruster, 2003)	Instruments Used (Bishop and Davis, 2005)
Identification	Indirect	High	Public Information Meeting
Planning	Shared Control	Medium	Surveys, Community Meetings, Demonstrations, Individual Meetings, Referendum
Execution	Consultation	Medium	Community Meetings, Interest group meetings
Evaluation & Monitoring	Indirect	Low	Informal site visits

**Table 5:** Overview of Participation during different stages of the slum upgrading project.  
Source: Author (2023)



the NGO, different levels of participation with varying degree of intensities were observed during the four stages of the project, as presented in Table 5. At no point was the community full responsible for the management and control of the project. Hence, the fifth and the highest level of participation i.e., Full Control (Goethert, 1998) were never achieved in the duration of the project. The highest level of participation was observed in the planning phase of the project, which was ‘Shared Control’.

Figure 3 shows the questionnaire responses for frequency of participation in various project activities. From the responses it was observed that a majority of the households were involved in the design development stage, with a few households also being involved in activities like surveying and manual labour. None of the households were formally involved in monitoring and evaluation activities for the project.



**Figure 4:** Questionnaire response for participation during various project activities  
Source: Author (2023)

#### 4.1.2 Participation during the Identification Stage

The project was conceived when the slum dwellers of Yerwada regularly started bringing problems regarding their living conditions to the local corporator. In 2005, the local corporator invited architect Filipe Balestra of Urban Nouveau to develop a strategy for upgrading the settlement. He proposed a participatory incremental in-situ strategy, which would retain the fabric of the settlement and reduce the footprint in order to free up space for providing communal areas. This project was later awarded to architect Prasanna Desai, who developed this concept further. The NGOs Mahila Milan and SPARC were invited to act as the mediators between the community and government officials and architects.

The corporator identified 7 slum settlements out of the 30 present in Yerwada that would come under this project. A public information meeting was held by the architect and NGO to inform the community about the upgrading project. During this meeting they were informed about the scheme, what they will be getting and the financial contributions that would be required from

their end. When asked about the initial reaction to the project, a 64-year-old female resident of Yerwada responded, “Our housing condition was very bad, every monsoon my house was flooded till my knee. We used to visit the corporators office every month and ask him for a permanent house. When the project was announced we felt like our prayers have finally been answered” (R2, semi-structured interview, 2023). Thus, we can see an ‘indirect’ involvement of the community members in the identification stage, which led to the realization of this project.



**Image 7:** Public Information meeting in Yerwada.  
Source: Prasanna Desai Architects (2013)

### 4.1.3 Participation during the Planning Stage

The highest level of participation during the project – shared control, was observed during the planning stage of the project. After the project was announced, the NGO and architects team set up a temporary office in the neighbourhood. Initially, weekly meetings were held to discuss the needs and problems of the community. These initial meetings were held to get the community mobilized and involved in the project. These meetings served as a platform for dialogue between the residents, local officials (corporator’s office), architects and the NGO. Mostly the women in the community attended these meetings. Talking about the frequency of participation in community meetings, a second-generation female resident of Yerwada responded, “My husband could not attend as he was at work the entire day...I used to go with other ladies in the evening after coming from work” (R2, semi-structured interview, 2023).

During the meetings, the in-situ incremental strategy developed by Urban Nouveau was presented to community using models and drawings for receiving feedback. Along with this, the corporator wanted to develop another design that would provide individual apartments in buildings, instead of on-site inserts. Both the ideas – in situ incremental strategy (independent



**Image 8:** Scale Model of dwelling unit made on site.  
Source: PDA, 2015



**Image 9:** Design discussion with the community.  
Source: PDA, 2015

house) & apartment complex strategy (Building complex) were developed by the architects and the community together (Image 9). Building models were made to explain to the community how the settlement would look like after upgrading, for both the options. A 1:1 scale model was constructed on site using bamboo, ply and cloth so that the residents could get an idea of the size of the unit (Image 8). Simultaneously, a plane table survey was conducted to map out the existing settlement and to mark the kuccha and pucca houses. This was done by the architects' team with the assistance of some interested community members.

According to Prasanna Desai, lead architect of the project, “the models were dabbled by every slum dweller which resulted in a lot of discussion. Every evening for almost two months we were working with the community and developing options” (Desai, 2013). After both the ideas were developed, they were put to a vote and the final decision was given to the community. The independent house incremental strategy won with almost 90% votes (Desai, 2013). There was a consensus that nobody wanted to leave their land and move to apartment style buildings. In an interview with respondent R1, a 46-year-old female resident of Yerwada and leader of *Mahila bachat* (women’s savings) group, she revealed that, “the corporator wanted to build an apartment complex for us. However, no one wanted to leave their own land and move to a building. After the voting, he (corporator) had to give in” (R1, semi-structured interview, 2023). As a result of this strategy, only the kuccha and semi-pucca units were able to benefit from the scheme and the existing pucca houses were not included.

After the strategy was finalised the process of developing individual units began. Individual meetings were conducted with every household to understand their needs and requirements. Based on their requirements, individual designs were developed for every household. Design negotiations went on for 5 months, before the plans were finalised. In the words of Prasanna Desai “the process of getting the communities approvals was a long one but crucial for the project. Multiple rounds of modifications were made to some dwellings, as per the needs of the community” (Desai, 2017). The architects also wanted to regularise the plots and free up some land for community spaces in the clusters. However, the community wanted the exact same amount of land as they previously had and hence this could not be done. The on-site work commenced only after every household had given their consent on the plans.



**Image 10:** Design discussion with the lead Architect.  
Source: PDA, 2015

#### **4.1.4 Participation during the Execution Stage**

Many residents living in Yerwada work in the construction industry as labourers, as well as contractors. Interested members were invited to participate in the construction process. Additionally, members who could not contribute 10% to the construction process were given the option to help in the demolition, painting, cleaning and other activities. In the survey questionnaire distributed to 35 households in Netaji Nagar, 8 households said that they were involved in the construction process in the form of manual labour. When asked about their involvement in the construction process, a 45-year-old female resident responded, “My son works in the construction sector. He was involved in masonry work during the project which reduced the amount we had to contribute for our house” (R4, semi-structured interview, 2023)

The streets of Yerwada are filled with shops that provide materials for construction. Despite this, the materials were not locally sourced from Yerwada. The contractor for the project was appointed by the local corporator who sourced materials from his own external sources. In the words of respondent R6, a 55-year-old male resident and grocery store owner, “There are 2 cement shops in Netaji Nagar, and many more in Yerwada...but still why wasn't the material taken from here? The corporator present at that time sourced his cheap quality cement for construction and kept the remaining money to himself” (R6, semi structured interview, 2023). Involving the community during this stage by appointing local contractors and sourcing local materials would have been extremely beneficial for the community but this opportunity was left behind due to corrupt motives of the local officials.

#### **4.1.5 Participation during the Evaluation and Monitoring Stage**

An early report published by SPARC detailing out the project mentioned that the initial plan was to conduct workshops that would train the beneficiaries to monitor the construction and do quality checks of materials like cement, bricks and reinforcement (Srivatsa, 2015). These plans never came to fruition due to budget issues and there were no efforts made to include the beneficiaries in the monitoring and evaluation part of the project. However, there was an indirect involvement from many community members in this process. The residents would visit their dwelling units regularly during the construction phase to monitor the progress and quality of construction. There was no temporary accommodation provided to the community during the execution and they were responsible for finding their own shelter. Many people had rented out rooms or were living with family or friends in nearby settlements. This made it easier for them to access the construction site and perform regular checks. In the words of a 55-year-old male respondent, “I used to visit the construction site regularly to check the progress...if there were any problems, I would go directly to the site office and they would promptly send someone to address it” (R6, semi-structured interview, 2023).

This involvement was purely based on the interest of the community members and no formal efforts were made to include them. Most of the people had no knowledge about performing quality checks and were only visiting the site to ensure that the process was going smoothly. Some residents who were not living nearby visited their unit only after completion, after a period of 1 year and were not involved in monitoring the progress (Respondent R4, 2023).

## 4.2 Outcomes of the Project

Based on the participatory process, a unique design proposal was evolved for the upgrading of Netaji Nagar. Netaji Nagar has a total of 207 households, which involved kuccha, pucca and semi-pucca houses. The apartment style complex which involved all 207 households was rejected in the design development phase and it was decided that only the kuccha and semi-pucca houses will be upgraded in-situ. The final outcomes led to in-situ upgrading of 108 kuccha households, and the remaining 99 households were not upgraded as they were already permanent structures.

### 4.2.1 Individual Unit

Every kuccha house was to receive 270 sq. ft of built-up area. The ground floor units were assigned to residents having larger plots and depending on the size of the plot a G+1 or G+2 structure was built to meet the 270 sq. ft requirement. Based on the size of plots three design typologies were developed (Image 11):

Typology 1: Ground Floor Structure

Typology 2: G+1/2 Structure with cantilevered balcony

Typology 3: G+1/2 Structure without cantilevered balcony

The most common typology was the G+1 structure. Diagram 6 shows the typical layout of a unit that was provided in the project. Every unit had a room (living area), toilet, kitchen counter, sink, staircase and water tank. The material of construction was concrete slabs and cement bricks. The walls were plastered and painted, and the floors were tiled. Image 12 shows the typical interior of a unit. A nameplate was provided outside each unit indicating that this unit was a part of the upgrading project taken under BSUP.



Typology 1



Typology 2

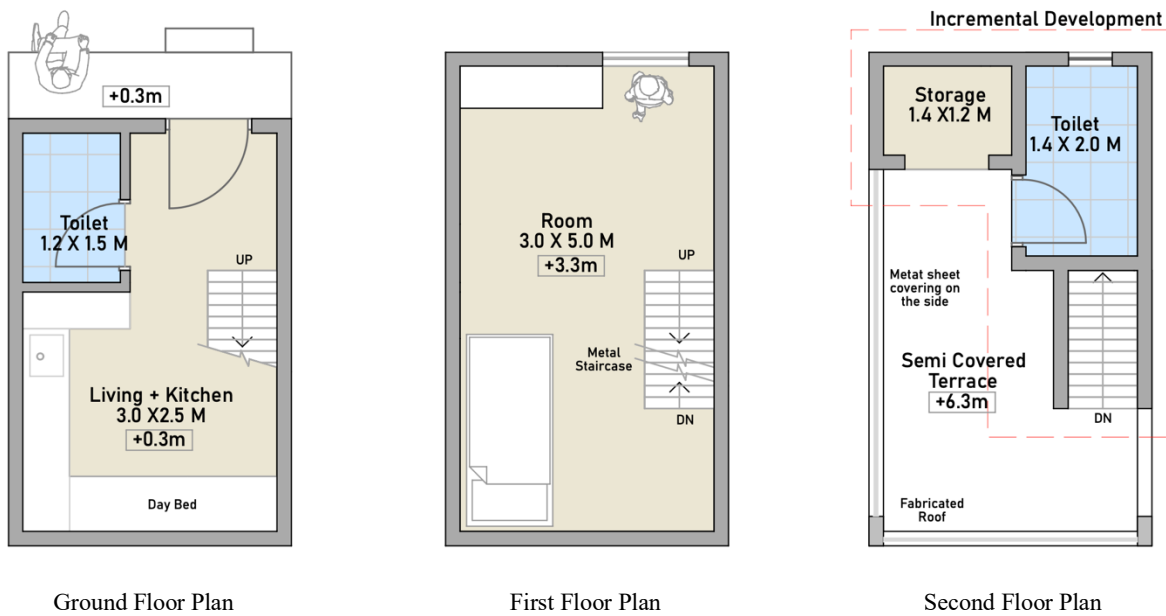


Typology 3

**Image 11:** Unit Typologies.  
Source: Author (2023)



**Image 12:** Interiors of a dwelling unit.  
Source: Author (2023)



**Diagram 6:** Typical Floor Plans (Unit Typology 2).  
Source: Author (2023)

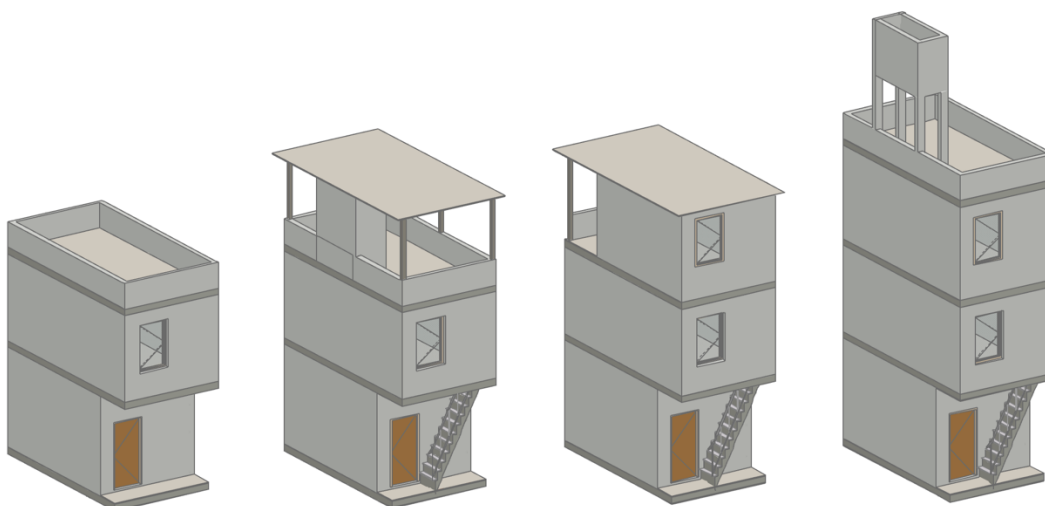
### 4.2.2 Incrementality

Since 2012, the settlement of Netaji Nagar have been growing incrementally with different pace and methods of construction owing to the incremental aspect of the in-situ upgrading programme. Incremental growth which is an inherent aspect of many informal settlements was formalised in this upgrading intervention by designing the units in a way that the residents could easily add or modify according to their needs. This flexibility was a result of certain design choices which include – RCC framework designed to take additional load to promote vertical growth, externalised plumbing and other services, cantilevering the upper floor for easily addition of external staircase and, reduction in the internal toilet heights to accommodate storage. During on-site fieldwork it was observed that the residents have utilised this flexibility provided to them according to their needs and made several improvements to their units incrementally. Table 6 describes the incremental changes made in few of the upgraded units in one cluster of Netaji Nagar since 2012.

Unit No.	House Typology	Household Size	Incremental developments since 2012
1	Type 1	5 people	Additional slab with temporary roofing, external staircase, kitchen counter
2	Type 2	7 people	Temporary roofing, kitchen counter and tiling, internal staircase, WC
3	Type 2	5 people	No incremental additions.
4	Type 3	6 people	Water tank, storage, temporary roofing, 2 toilets, balcony, change in layout of kitchen
5	Type 2	8 people	Additional room with temporary roofing, Storage, Toilet, water tank, redesigned kitchen, external staircase.
6	Typology 3	6 people	External staircase, balcony
7	Typology 2	8 people	Additional room with permanent roof (slab), temporary roof on remaining terrace, storage, toilet, staircase, kitchen counter

**Table 6:** Incremental developments made in dwelling units of Netaji Nagar.  
Source: Author (2023)

Though the pace and kind of incremental development varies in every unit, a typical pattern was observed in many dwelling units (Diagram 7). The first phase usually involved construction of a temporary roofing material for the terrace and an internal or external staircase. This was followed by the addition of a small room and toilet. Then, the temporary roof was converted into a permanent one (concrete) and the plastic water tanks were replaced by concrete ones. Image 13 shows incremental additions being made in dwelling units of Netaji Nagar. Many people with Typology 2 have opted for the addition of an external staircase so that the room above can be rented out. Generally, it was observed that the incremental growth in the upgraded units was more controlled and regulated as compared to the kind of growth happening in un-upgraded units. The incremental growth in the units that were not upgraded was faster and uncontrolled leading to encroachment on the public spaces affecting the street character.



**Diagram 7:** Typical incremental development seen in dwelling units of Netaji Nagar.  
Source: Author (2023)



**Image 13:** Incremental growth seen in Yerwada.  
Source: Author (2023)

## 4.2.2 Neighbourhood Level

The slum upgrading programme was successful in providing permanent and properly serviced dwelling units to the residents in Yerwada. But the programme did not look beyond that. Due to budget overruns, the project failed in providing upgraded roads and other infrastructure like public facilities, street lighting and waste disposal systems (Desai, 2013). The following subsections will describe the present state of roads, community spaces and public facilities in Netaji Nagar.

### 4.2.2.1 Roads

The roads in the settlement were not upgraded as a part of the programme. During the planning stage the slum dwellers were informed that the internal streets would be upgraded to paved roads, however this never came to fruition due to budget overruns. A hierarchy of streets can be observed in the settlement- the main road, internal streets and *gullys* (narrow lanes) (Image 14). The main road connects Netaji Nagar to other settlements and is filled with small shops like grocery stores, barbershops and construction materials. The main road is 30m wide but is completely encroached by hawkers and the shop owners. The internal streets are usually flanked on both sides by residences. These streets are 3-6m wide and can be accessed only by 2-wheelers. These streets are usually characterized by children playing on them and women sitting on the porches and doing their household work or socializing with neighbours. These streets could be considered as semi-public extensions to the dwelling unit. The third type of roads which is seen in this neighbourhood are the *gullys* which are 1m or sometimes even less than 1 m wide. These streets are a result of the houses being densely packed next to each other and cause several problems related to light and ventilation.





Main Road

Internal Streets

Gullys

**Image 14:** Hierarchy of Roads in Netaji Nagar.  
Source: Author (2023)

#### 4.2.2.2 Community Spaces

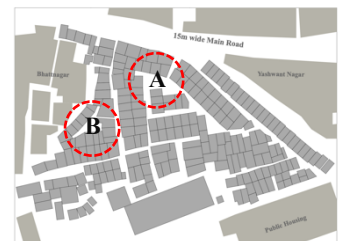
Community spaces play a vital role in informal settlements. No formal community areas were provided as a part of this project. According to the original plan proposed by the architect every unit was to give up 15% of their land on the ground floor to make space for communal areas and provide public seating as well as small green patches. However, during the participatory discussions in design development phase, the community rejected this idea as no one wanted to give away a part of their land and everyone wanted a bigger dwelling unit. The communities’ preferences were respected, and this idea was not executed. However, it was observed that the small spaces formed organically between clusters were acting as the community spaces in Netaji Nagar. These small pockets of open spaces are vital for the day-to-day functioning of the community. Image 15 shows the character of community spaces in Netaji Nagar. They act as gathering spaces for women’s *bachat ghats* (saving groups) and the local *mandals* (community groups). These spaces are also vital to the community during festivals or weddings. During these times they are usually covered with a *mandap* (temporary canopy) (Image 15 Cluster A) to indicate festivities and as a symbol of togetherness. Usually, a local deity is placed in this mandap during this period and the whole cluster gathers together for worshipping.



Cluster A



Cluster B



**Image 15:** Community Spaces in Netaji Nagar.  
Source: Author (2023)

### 4.2.2.3 Public Facilities

Netaji Nagar is centrally located in Yerwada and most facilities like schools, markets and a government hospital are accessible to the residents. The project did not involve improving the availability and accessibility of these public amenities and relied solely on the presence of existing facilities. Apart from these, many smaller facilities are present in Netaji Nagar which meet the daily needs of the residents. Table 7 presents the public facilities that are present in Netaji Nagar. Most of these are located along the main road and are run by the local residents. The facilities that existed before the upgrading project were incorporated into the design. Many other facilities like shops and eateries have opened up in the neighbourhood after the upgrading project. The main temple is located at the entrance of Netaji Nagar and some shrines as present inside as well.

Type of Facility	No. (in Netaji Nagar)
Primary healthcare facilities	1
Grocery Stores	2
Medical Stores	1
Temples	1
Shrines	3
Miscellaneous stores (barbershops, clothes, construction materials, repair shops)	8
Eateries	2
Public Toilet	1

**Table 7:** Public Facilities in Netaji Nagar.  
Source: Author (2023)



**Image 17:** Public square located close to Netaji Nagar.  
Source: Author (2023)

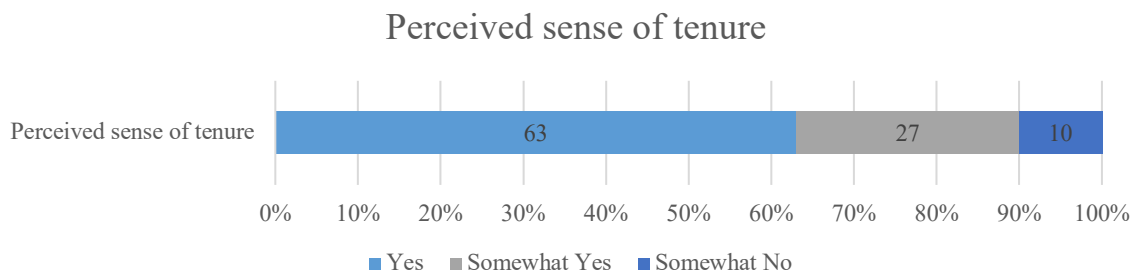


**Image 16:** Farmers Market.  
Source: Author (2023)

### 4.2.3 Tenure Security

The government provided a 99-year lease to the upgraded as well as non-upgraded units of the settlement. Netaji Nagar was declared as a ‘notified’ slum which protects the residents from the threat of eviction. Additionally, a no-objection certificate and completion certificate were provided to the upgraded units as proof of legitimacy of the structures. A nameplate containing the family name and address was also installed outside every unit, which had high significance for the community members. In the words of Respondent R5, a 32-year-old male resident of Yerwada, “Seeing my name outside my house after living here all my life really makes me feel proud...it is a symbol that we belong here” (R5, semi-structured interview, 2023).

In the questionnaire distributed to the residents, 63% responded that they strongly felt they have long-term security of tenure, and 27% respondents felt somewhat secure about their tenure. Despite being provided ownership certificates to the beneficiaries, 10% respondents still felt that they still feel some threat of eviction. The main reason for this was seen to be the lack of faith on the government. Respondent R6, a 55-year-old male resident quoted, “We have legal ownership of our house...but still...you never know when they (the government) will come and remove us from our houses” (R6, semi-structured interview, 2023).



**Figure 5:** Perceived sense of tenure based on the questionnaire response.  
Source: Author (2023)

According to a report published by SPARC (2011), the perceived sense of tenure is directly proportional to the investments made in the dwelling unit by the slum dweller. According to the questionnaire distributed, 82% of the households (29 out of 35), have made some form of incremental additions to their dwelling units over the years, which can also be seen as an indicator of high level of perceived tenure security in the community.

### 4.3 Acceptability of Outcomes

This section will answer the third sub-research question ‘What was the communities’ perception regarding the ‘acceptability’ of the housing outcomes?’ as outlined in Table 3 of Operationalization. The communities’ perception of the three dimensions of acceptability – physical, socio-cultural and economic, will be evaluated using the data collected from the questionnaires and semi-structured interviews. The data collected through the questionnaire will give us an overall understanding of the outcomes and analysis of the in-depth interviews will allow us to gain valuable insights into the viewpoints and perceptions of outcomes. Understanding these perceptions are crucial for evaluating the impact of the in-situ upgrading project and to further identify areas of improvement. A comprehensive analysis of the data is done to provide an understanding of the communities’ perception of ‘acceptability’ of outcomes, shedding light on their satisfaction and concerns.

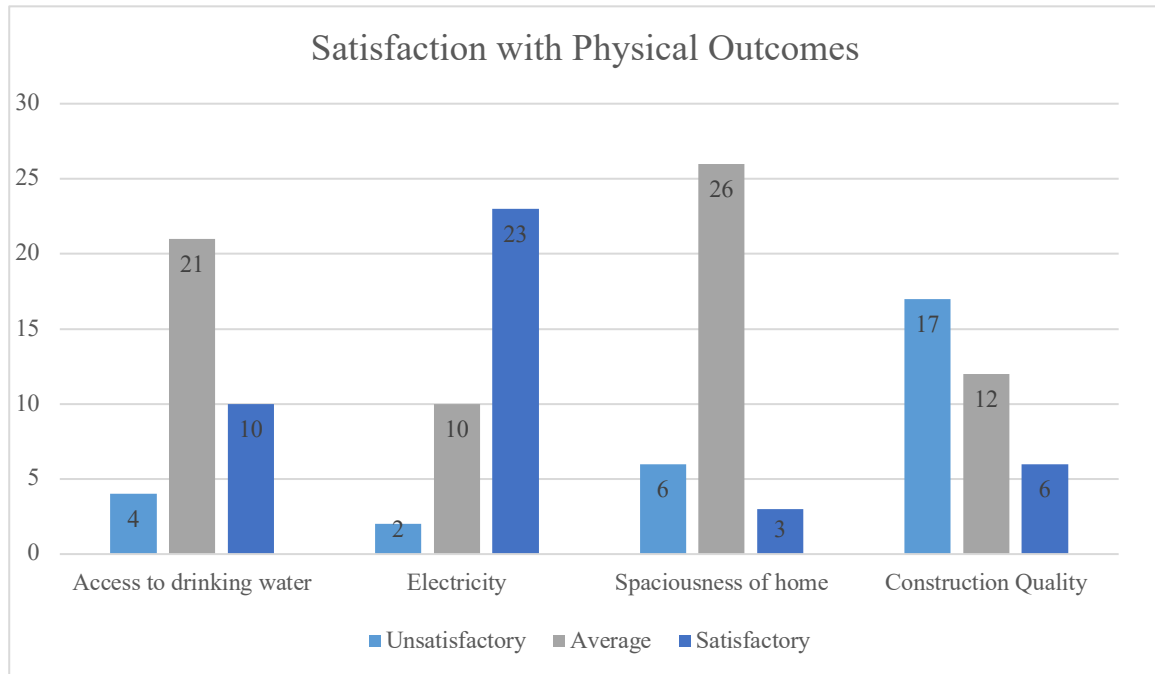
#### 4.3.1 Physical Acceptability

Physical Acceptability refers to the satisfaction and suitability of the slum upgrading outcomes from the perspective of the community. It encompasses various dimensions related to housing quality, amenities and access to basic services. In this project, these aspects were addressed through a participatory and incremental approach, by making sure that their needs and preferences were taken into account. According to the questionnaire distributed, 74% households felt that the physical conditions of their household have significantly improved after the upgrading, and 26% said that their conditions have somewhat improved. This shows that overall, there was significant level of acceptance of the physical outcomes. While talking about the physical conditions of his house, a 32-year-old male respondent said, “We were 7 of us living in a small *jhoad-patti*, with no electricity and water. Every monsoon our house was destroyed, and we had to rebuild from the ground-up. Getting a *pucca* house has solved many of our problems.”. (R5, semi-structured interview, 2023).

The participatory process allowed the residents to take control of the design of their unit, and make modifications as per their preference, which contributed to the physical acceptability. Every dwelling unit layout was discussed individually with their respective owners in order to accommodate changes as per their requirement. In the words of respondent R1, “During the meeting I suggested we reduce the bathroom ceiling height to accommodate additional storage on top...many people liked this suggestion, and it has been incorporated into the design...it gives us a lot of extra space” (R1, semi-structured interview, 2023). This indicates how participation in the planning stage was positively correlated with the physical acceptability.

Overall, the residents were satisfied with services like water and electricity that were provided as a part of the project (Figure 3). All the plumbing was externalised which made it easier for them to add toilets and water connections on upper floors that were later added. The major issue that was observed was regarding the construction quality. Many residents were not satisfied with the quality of materials used and didn’t feel like the house was worth the price of 3 lakh Rs. 49% respondents were not satisfied with the construction quality of the house, and 34% felt that it was average. Talking about the construction quality, a 55-year-old male respondent revealed that “The corporator was corrupt and he ate our money. He got his own contractor who got cheap materials which are definitely not worth 3 lakh. Now the plaster is coming off and there are leakages everywhere” (R6, semi-structured interview, 2023). This can be related back to the low levels of participation during the construction stage. The

materials were not locally sourced from Yerwada and contractors from the community were not given the construction job. The corporator wanted to make a profit, which resulted in low quality of materials, thus affecting the acceptability of outcomes.



**Figure 6:** Satisfaction with physical outcomes.  
Source: Author (2023)

Only Kuccha houses within the settlement were able to benefit from the process. Out of the 207 houses in the neighbourhood only 130 were upgraded, because the remaining were already permanent houses. The people living in these houses already had made big investments to convert their houses into permanent structures and did not want to spend more money. While interviewing a 65-year-old female resident, whose house was not upgraded in 2012, she revealed that, “We had already put a lot of our money into making our house *pucca*. We didn’t want to spend more money and go through all the trouble for a similar house, and we definitely didn’t want to move into an apartment!” (R8, semi-structured interview, 2023). As a result, Netaji Nagar exhibits a unique built environment, consisting of units that were predominantly upgraded in 2012, alongside some remaining un-upgraded yet *pucca* dwelling units.

One important component of the project was the incremental aspect of it. Even though the residents were expected no build on their own, no training or workshops were conducted to teach them the methods of construction. Additionally, the regular building byelaws are not applicable for construction in these settlements. This combination of no constraint and lack of knowledge resulted in some odd and hazardous forms of incremental constructions in the settlement. In many cases it was observed that the steel bars from added construction are exposed and protruding out on the street (Image 18 A). It was observed that in some cases, people have cantilevered the upper floors by up to 2m on the street blocking sunlight from the street and causing poor ventilation (Image 18 B). Some facades in the settlement are nearly touching each other which cause no light to enter the room (Image 18 C). This only goes to show how important ‘space’ is for the residents, and other things like light and ventilation play a secondary role.



**Image 18:** Construction quality of incremental additions in Netaji Nagar.  
Source: Author (2023)

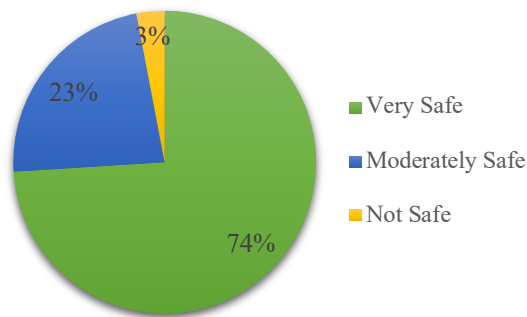
### 4.3.2 Socio-Cultural Acceptability

This section will analyse the acceptability of slum upgrading outcomes through the socio-cultural dimension. First and foremost, due to the participatory process it was decided that every dwelling unit will be upgraded in-situ and the residents won't have to leave their land and move to apartments. This was one of the biggest factors that affected socio-cultural acceptability of outcomes, which is related to the residents' sense of belonging. Residents in Yerwada had been living on their land since multiple generations, and had sentimental value attached to it. In the words of respondent R6, a third-generation male resident of Yerwada, "My grandfather came to Yerwada more than 60 years ago...since then my family has been living in the same place...this is my home" (R6, semi-structured interview, 2023). Additionally, ground-level living is deeply rooted in the cultural fabric of Indian communities and is an essential aspect of their daily life. Taking this aspect away and relocating slum dwellers to apartment style housing affects socio-cultural acceptability significantly. In the words of a second-generation female dweller of Yerwada, "My sister living in the adjacent neighbourhood was given an apartment, but she didn't like it and her family moved within a year because they couldn't adjust there" (R7, semi-structured interview, 2023).

The design of the unit featured several elements that had cultural significance to the community, which was a result of community participation and involvement in the design stage. Every dwelling unit was provided with an 'otah' (Indian style porch) (Image 19). This is a feature of vernacular housing which is an essential part of daily life. The streets outside the houses are considered to be an extended part of the house where many daily activities like cooking, bathing and washing take place. They also act as playgrounds for the kids. These otahs become a part of the public space and act as a buffer space between the house and the street. In the words of a third-generation 45-year-old female respondent, "Every evening after coming from work all ladies sit together on the otah and do our household work together. Our neighbours are more like a family" (R4, semi-structured interview, 2023). In-situ upgrading helps in promoting these community ties which are a result of the nature of built form in slums, thus increasing cultural acceptability.

When asked about ‘perception of safety’ in the questionnaire, 74% participants responded that they perceived their community to be very safe, and 23% responded that they feel moderately safe (Figure 7). Talking about feeling of safety and interaction with neighbours, a 46-year-old female resident responded, “All of my neighbours are like my family. My children also stay with the neighbours for most of the day after school as I come late from work” (R1, semi-structured interview, 2023). Additionally, all major festivals like Ganpati and Diwali are celebrated communally among different clusters with a common deity placed in the community spaces under a *mandap*. There is also a *mandal* (community group) present which represents the neighbourhood and is responsible for organising events. The *mandal* usually conducts their meetings outside the temple located at the entrance of Netaji Nagar. Apart from the mandals, some clusters also have their *Mahila Bachat ghats*, which are essentially women’s savings groups. The presence of social cohesion can be seen among the residents through communal celebration of festivals and presence of various community groups, which is an indicator of socio-cultural acceptability of the project.

Perception of Safety and Security



**Figure 7:** Perception of Safety and Security.  
Source: Author: (2023)



**Image 19:** *Otah* (Indian style porch).  
Source: Author (2023)



**Image 20:** Children playing in community space.  
Source: Author (2023)

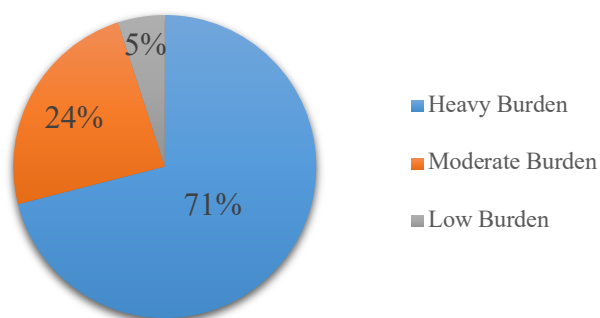
Incremental development is another aspect of this project which links to cultural acceptability. In India, usually multiple generation of the family live together. As the family grows more space is required for living. By providing the scope to increase vertically this concern can be

easily addressed. Out of the 35 households to which the survey questionnaire was distributed, 28 units had added at least another room post-upgrading. This indicates that the incremental strategy envisaged at the beginning of the project was adopted by the beneficiaries and is also culturally acceptable per the nature of Indian households.

### 4.3.3 Economic Acceptability

This section will analyse how the participatory incremental in-situ upgrading process affected the economic acceptability of outcomes for the residents of Yerwada. While looking at the economic acceptability of slum upgrading outcomes, it is important to look at the financial burden faced by the community in order to meet the construction costs, as well as the financial burden faced post-upgrading in terms of maintenance and living costs. Every dwelling unit in this project was allocated a budget of 3 lakh Rs. (Approximately 3600\$), out of which a 10% contribution (30000 Rs. /360\$) was expected from the beneficiaries. This decision of beneficiary contribution was deliberately taken so that the residents develop become active participants in the project and are more likely to appreciate the benefits (Desai, 2013). When asked about the financial burden faced by the household in terms of meeting the 10% requirement, 71% responded that they felt a heavy burden, 24% felt a moderate burden and 5% felt a low burden (Figure 7). The people who were facing heavy burden were given the opportunity to contribute by doing manual labour in the construction process. 9 out of the 35 respondents said that they were able to reduce the cost of construction by doing so. The option of securing a loan at no interest was also provided by Mahila Milan. 90% respondents said that they had removed a loan to fulfil the 10% requirement. When talking about burden faced by their household, a 64-year-old female resident working as domestic house-help responded, “Getting thirty thousand rupees at that time was a very big deal for us. Mahila Milan helped us in getting a loan which we repaid in thousand-rupee instalments” (R2, semi-structured interview, 2023).

Burden faced by households for meeting the 10% monetary requirement of 360\$



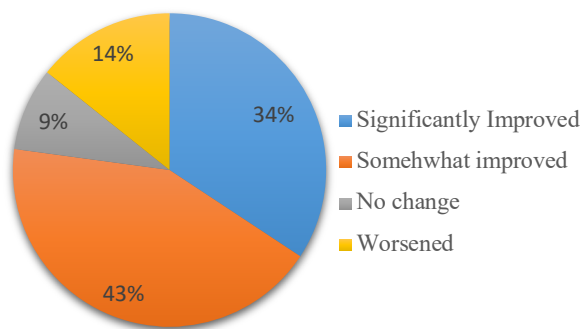
**Figure 8:** Financial Burden faced by households.  
Source: Author (2023)

During the construction period no alternative for accommodation was provided to the slum dwellers. The construction went on for 12-16 months and the slum dwellers were expected to manage their own stay during this period, which was an additional expense for them. Most people rented out rooms in nearby settlements and some people moved in with their relatives living nearby. Even though the initial period was difficult for the beneficiaries, the data collected from the respondents indicates that the economic conditions of the beneficiaries have improved post-upgrading. 34% respondents felt that their economic conditions today have significantly improved than what they were before, and 43% respondents felt that their



economic conditions have somewhat improved over the years (Figure 8). While talking about their economic conditions, a 46-year-old third-generation female resident mentioned “At the time of the project our conditions were very bad. We had a lot of difficulty in repaying the loan as I was the only one working in my house. Today, my son has a good job. We recently got a plasma TV and repainted the interior as well”. (R1, semi-structured interview, 2023). It is important to note here that finding out whether the improvement in economic conditions is caused by the provision of upgraded housing and establishing causality is complex and would require a quasi-experimental design, which was beyond the scope of this research. However, we can make assumptions based on the literature which suggests that economic upliftment is linked to adequate housing outcomes. This can be observed in the case of the Yerwada housing project, where the economic conditions of a majority of households have improved after the upgrading project.

Economic conditions post-upgrading



**Figure 9:** Perceived economic conditions post upgrading.  
Source: Author (2023)

When asked about the monthly expenditure in relation to housing-related costs, such as maintenance and utilities, 62% households responded that they face a moderate-burden and 38% households responded that they face a high-burden. This could be attributed to the fact that many of the households have found ways to earn additional income through the dwelling unit. According to the questionnaire, 12 out of the 35 households (35%) have rented out a floor or a room in their house for extra income. This was made possible by enabling incremental development in the households and the possibility to add an external staircase for accessing the upper floors, which wouldn’t disturb the privacy of the household. Another source of supplemental income for the households were the home-based ventures, which were started mainly by the women of the community (Respondent R2; R4; semi-structured interview, 2023). These businesses are run out of their kitchen or living areas, where they primarily sell *achaars* (pickle), *chutneys*, *khakhras* (Indian snack), and even home-cooked meals. In the words of respondent R4, a 45-year-old female working as a house-help, “In the new house I had a big kitchen, so I started by pickle business a few years ago...now everyone in the community buys my famous pickles” (R4, semi-structured interview, 2023).

#### 4.4 Summary of Findings

Based on the data collected and analysed previously in this chapter, it is evident that the participatory process was instrumental in improving the acceptability of outcomes by fostering changes across physical, socio-cultural and economic dimensions. Though the participation was low in the identification, construction and evaluation phase of the project, the findings highlighted that participation during the design and planning stage significantly shaped the outcomes and improved acceptability.

In terms of physical acceptability, the project addressed the quality of housing of the *pucca* units and provided improved living conditions for the beneficiaries. No two dwelling units were of the same size as a result of which every unit had to be treated like an individual project. Incorporation of incremental development allowed for personalised modifications, and need based growth, meeting the diverse needs of the residents contributing to their satisfaction. Overall, the residents were satisfied with the physical outcomes and felt that their conditions have improved after the upgrading project. In-situ upgrading allowed the perseverance of community cultural practices and also helped in maintaining the community spaces which are significant part of the daily lives of the residents. The project managed to maintain the informality, complexity and social relations within Netaji Nagar which form the identity of the settlement. Economic acceptability was visible in terms of the presence of home-based ventures as well as financial investments made by the beneficiaries to improve and incrementally grow their house.

While the participatory in-situ upgrading project showcased numerous outcomes that improved the acceptability, there were many challenges and limitations as well. Due to political issues the residents weren't fully involved in all stages of the project which affected the outcomes and led to substandard construction. Apart from this, the architect's team and NGO weren't fully able to demonstrate and convince their vision to the community which involved more community space and use of innovation construction materials. The project also missed the opportunity to introduce income-generating activities and vocational training which would have helped in strengthening the economic prospects of the slum dwellers. Lastly, the incremental constructions throughout the settlement were not monitored which affected the internal space quality in terms of light and ventilation. This could have potentially adverse long-term effects as poor ventilation and light may affect health of the residents.

## **Chapter 5: Conclusion**

The conclusionary chapter of this research project begins by restating the study purpose and then delves into answering the main research question, "How did the participatory in-situ slum upgrading in Yerwada contribute to the acceptability of housing outcomes?" based on the insights gathered from the findings and analysis, alongside the comprehensive literature review. Then it discusses the implications of this research, suggests further research potentials and concludes by presenting some policy recommendations in the context of slum upgrading in India, based on the learnings of the study.

### **5.1 Restatement of study purpose**

The purpose of this study was to investigate how the participatory in-situ slum upgrading process in Yerwada contributed to the acceptability of housing outcomes. This study looked at the dimensions of physical, socio-cultural, and economic acceptability, which enabled us to provide a holistic evaluation of the participatory slum upgrading project.

### **5.2 Acceptability and Community Participation**

The findings of the study highlighted the intricate dynamics that underpinned the acceptability of outcomes in slum upgrading initiatives. Yerwada, being a long-standing slum settlement with diverse physical conditions and economic situations, demanded a tailored approach. The project was successful in identifying these complexities in the slum and avoided a 'one-size fits all' solution. The process involved mapping, surveying, and demographic data collection of slum dwellers, with the active involvement of all stakeholders. The participatory approach that was adopted ensured that the outcomes of the intervention align with the needs of the community, which resonated with the works of Imperato and Ruster (2003), and Hamdi (2010) who stressed on the importance of meaningful participation in their works.

In the framework of 5A principles of adequate housing, Ayala et al. (2019) highlighted the concept of housing acceptability, particularly stressing on the need for interventions to resonate with the community's values and preferences. The findings of the study revealed a positive correlation between participation during the planning stage and physical and socio-cultural acceptability of outcomes. Allowing the community to understand the project and have a voice resulted in the adoption of an in-situ upgrading strategy over an apartment style complex which was initially proposed by the corporator. This particular decision of the community advocating for a change in seemingly just 'physical' attributes of the project was transformative and had significant impact on the socio-cultural and economic dimensions as well. This distinctive decision to pivot towards an in-situ approach set the Yerwada project apart from other initiatives falling under the BSUP program, which was facilitated through community participation.

### **5.3 Reflection on the study outcomes**

The slum upgrading programme was successful in providing clean water, sanitation, durable construction as well as tenure security to the residents of Netaji Nagar in Yerwada. Therefore, the settlement can no longer be called a 'slum' or 'informal settlement' as per the definition provided by the UN Habitat (2003). However, there is still a great deal of informality present in settlement as it doesn't stick to the governments rule and building codes. By involving the community in the decision-making process, the project respected the social dynamics and cultural practices of the settlement. This approach, which was rooted in community engagement, ensured that the upgraded housing outcomes aligned with the preferences of the residents, thus leading to higher rates of physical, socio-cultural and economic acceptability.

The active involvement prevented the imposition of rigid formal structures and provided structures that were not only structurally improved but also remained familiar and relevant to the daily lives of the residents. The informality that was sustained through community participation went beyond physical structures. It encompassed the informal social networks, cultural traditions, and livelihood practices that had evolved over time within the settlement. By allowing these aspects to flourish, the participatory process contributed to the overall well-being of the residents, aligning with the principles of adequacy in housing.

#### **5.4 Implications of the research**

The study's focus on Yerwada provides context specific insights which can be applied to similar contexts in India or else, with implications that extend to policy formulation and practice. The main contribution of this thesis is its empirical analysis of how community participation affects the acceptability of housing outcomes in the context of a slum upgrading project. It acknowledges the potential of slum dwellers as active contributors to the development process and not just passive beneficiaries. The study's findings on how residents' preferences guided the process and influenced outcomes can guide policymakers to develop interventions that will look at community participation not merely as a procedural requirement but as a strategic element to enhance housing acceptability. The study also highlights the importance of maintaining the socio-cultural fabric of the settlement during the upgrading process which is related to community cohesion and neighbourhood identity. Such insights inform the policies to look beyond just the physical infrastructure and also honour the cultural and social dimensions of slum settlements.

#### **5.5 Potential for further Research**

Future research in the field of participatory slum upgrading and housing acceptability could explore the application of a quasi-experimental research design to establish causality between participatory in-situ interventions and improved acceptability outcomes. While the current study provides valuable insights through qualitative methods, future research that adopts a quasi-experimental design such as a pre and post intervention study or a non-equivalent control group study with a quantitative dimension or mixed-method approach would further strengthen the study's findings and its ability to determine causality. By selecting comparable control groups that did not receive the intervention and comparing their outcomes with the intervention group, researchers could better attribute changes in acceptability dimensions to the intervention itself. Furthermore, comparative analysis across different slum contexts could offer a broader understanding of the factors influencing acceptability and contribute to a more robust theoretical framework.

#### **5.6 Policy Recommendations**

Based on the findings of this study on participatory in-situ slum upgrading in Yerwada, Pune, this thesis will conclude by putting forth a few policy recommendations to enhance the effectiveness and acceptability of future slum upgrading projects in India. The first and foremost recommendation would address the pressing need to formally include in-situ slum upgrading in the policy discourse of PMAY instead of in-situ slum redevelopment. Meaningful community participation throughout the various stages of slum upgrading should be prioritized to ensure the outcomes align with the needs of the beneficiaries. Policymakers should also recognise and consider preservation of informal social networks and cultural practices within slum communities, which can be facilitated through participation. Furthermore, inclusion of income-generating workshops and vocational training will aid in improving the economic prospects of the beneficiaries and promote sustainable development.

Additionally, as seen in the case of Yerwada, formal inclusion of incremental development policies will enable the enable the slum dwellers to take ownership of the process and allow them to shape their living conditions according to their needs and aspirations. In conclusion, these policy recommendations that have originated from the study findings highlight the need for a shift in the governments perspective from a top-down approach to a bottom-up approaches, allowing the community to play an active role in housing provision.

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## Appendix 2: Interview Guide

Semi-Structured In-depth Interview

Respondents: Beneficiaries of Yerwada slum upgrading project (2012)

### *Greetings and Introduction*

Hello. Good Afternoon.

My name is Yash Munot and I'm from Pune. Currently, I'm pursuing my masters degree in Urban Management and Development from Erasmus University which is based in Rotterdam, Netherlands. I'm interviewing you today as a part of my thesis research which is regarding the participatory upgrading process that took place in Yerwada.

I would like to thank you for taking the time out and being a part of this interview.

### *Introducing the interview Topic*

As you might be aware, this one of its kind upgrading project is internationally recognized and was also declared as a success by the Government of India. The NGO and architects involved in the project received a lot of praise for the way that the project was handled. There have been many reports published online which describe the project in detail but none of them talk about the residents views of the project. That is why, for my thesis, I'm going to be studying the communities perception of the project in terms of the process and its outcomes.

### *Duration and Structure*

The interview will last around 15-20 minutes.

For the first part of the interview I will ask you a few questions about your background and biographical facts. These will be followed by a set of open and close ended questions related to our interview topic. If you don't understand a question or any part of it please do not hesitate to ask for clarification. If you don't feel comfortable answering any question, or if you wish to take a break in between questions please let me know.

### *Consent for Recording*

Before starting this interview, I would like to ask for permission to record this interview. The recording of the interview will be used for my analysis and once that is done it will be erased from the system. Do I have your permission to record this interview?

Please note that you can withdraw your consent at any time during the interview and I will stop and erase the recording.

### *Consent for Research*

I would also like to inform you that all the information provided will be strictly confidential and used for academic purposes only. All data will be anonymized and your privacy will be protected. Do you give consent to this data being used for academic research?

Thank you for your cooperation. I hope this will be a pleasant experience for you.  
Let us begin with the interview.

## Questions:

1. Could you please describe your role in the participatory upgrading process?
2. Were you involved in the design development phase of the project?
3. How often did community meetings take place? Who was responsible for organizing them?
4. Do you feel like opinions were valued during the meetings? Did you feel like the NGO professionals were just informing you rather than involving you in the decision-making process?
5. How long did the planning phase last? Were there any hurdles faced in this process?
6. Did you have opportunities to raise any concerns during this process?

### *Physical Acceptability*

7. How were your living conditions before the upgrading project? Do you think your conditions have improved?
8. Have you grown your house incrementally over the years? Function of these spaces. Was it useful?
9. Are there any design changes incorporated that were specific to the household's requirement?

### *Social Acceptability*

10. Do you feel that the participatory process improved your bonds with the neighbors/community members?
11. Do you celebrate festivals and cultural activities with community members?
12. Are there any cultural groups or organizations present in the community?

### *Economic Acceptability*

13. Were there any employment opportunities created as the part of the project?
14. Do you feel like your economic conditions have improved as a result of the project?
15. Did you have any difficulty in meeting the 10% monetary requirement?

### *Concluding Questions*

16. Overall, did you feel that you benefitted from the participatory process in terms of the outcomes?
17. Is there anything that you dislike about the project or something that you would've changed in the upgrading project?
18. Do you have any additional comments or suggestions regarding the project and its outcomes?

I'm done with my questions. I would like to thank you for your time and co-operation. Please feel free to ask me any questions that you might have.

## Appendix 3: Questionnaire

### Yerwada Participatory Upgrading Project

\* Indicates required question

#### Demographic Information

1. Name (नाव)

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2. Age (वय)

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3. Gender (लिंग)

*Mark only one oval.*

Male (पुरुष)

Female (स्त्री)

4. Occupation

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5. Marital Status (वैवाहिक स्थिती)

*Mark only one oval.*

Married (विवाहित)

Single (अविवाहित)

Divorced (घटस्फोटित)

6. Years of residence in Yerwada

येरवड्यात किती वर्षांपासून रहात आहात?

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7. Household size (घरात राहणाऱ्या लोकांची संख्या )

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## Section 2 : Community Participation (समुदायाचा सहभाग)

8. Were you involved in the Yerwada slum upgrading project?  
येरवडा अपग्रेडिंग प्रकल्पात तुमचा सहभाग होता का?

Mark only one oval.

- Yes (होय)  
 No (नाही)

If yes, answer the following questions. If no, move to the next section.  
होय असल्यास, खालील प्रश्नांची उत्तरे द्या. नसल्यास, पुढील विभागात जा.

9. How often did you participate in the project activities?  
तुम्ही प्रकल्प उपक्रमांमध्ये किती वेळा सहभागी झालात?

Mark only one oval.

- Frequently (खूप वेळा)  
 Occasionally (अधूनमधून.)  
 Rarely (कमी वेळा)

10. Please select all the activities in which you were involved during the upgrading project  
कृपया अपग्रेडिंग प्रकल्पादरम्यान तुम्ही ज्या ऑक्टिव्हिटीमध्ये गुंतले होते ते सर्व निवडा

Tick all that apply.

- Budgeting बजेटिंग  
 Site surveying साइट सर्वेक्षण  
 Land Allocation जमीन वाटप  
 Developing Design Options डिझाइन पर्याय विकसित करणे  
 Scheduling Tasks कार्य शेड्यूलिंग  
 Construction (Manual Labour) बांधकाम  
 Evaluating Construction Quality बांधकाम गुणवत्तेचे मूल्यांकन  
 Monitoring Project process प्रकल्प प्रक्रियेचे निरीक्षण

11. How would you rate your level of participation during the planning and design development phase of the upgrading project?  
अपग्रेडिंग प्रकल्पाच्या नियोजन टप्प्यात तुम्ही तुमच्या सहभागाच्या पातळीला कसे रेट कराल?

Mark only one oval.

- High level (खूप सहभाग)  
 moderate level (मध्यम सहभाग)  
 low level (कमी सहभाग)  
 no participation (सहभाग नाही)

8. Were you involved in the Yerwada slum upgrading project?  
येरवडा अपग्रेडिंग प्रकल्पात तुमचा सहभाग होता का?

Mark only one oval.

- Yes (होय)  
 No (नाही)

If yes, answer the following questions. If no, move to the next section.  
होय असल्यास, खालील प्रश्नांची उत्तरे द्या. नसल्यास, पुढील विभागात जा.

9. How often did you participate in the project activities?  
तुम्ही प्रकल्प उपक्रमांमध्ये किती वेळा सहभागी झालात?

Mark only one oval.

- Frequently (खूप वेळा)  
 Occasionally (अधूनमधून.)  
 Rarely (कमी वेळा)

10. Please select all the activities in which you were involved during the upgrading project  
कृपया अपग्रेडिंग प्रकल्पादरम्यान तुम्ही ज्या ॲक्टिव्हिटीमध्ये गुंतले होते ते सर्व निवडा

Tick all that apply.

- Budgeting बजेटिंग  
 Site surveying साइट सर्वेक्षण  
 Land Allocation जमीन वाटप  
 Developing Design Options डिझाइन पर्याय विकसित करणे  
 Scheduling Tasks कार्य शेड्यूलिंग  
 Construction (Manual Labour) बांधकाम  
 Evaluating Construction Quality बांधकाम गुणवत्तेचे मूल्यांकन  
 Monitoring Project process प्रकल्प प्रक्रियेचे निरीक्षण

11. How would you rate your level of participation during the planning and design development phase of the upgrading project?  
अपग्रेडिंग प्रकल्पाच्या नियोजन टप्प्यात तुम्ही तुमच्या सहभागाच्या पातळीला कसे रेट कराल?

Mark only one oval.

- High level (खूप सहभाग)  
 moderate level (मध्यम सहभाग)  
 low level (कमी सहभाग)  
 no participation (सहभाग नाही)



16. Have there been any incremental developments in your housing unit over the years? If yes, please describe the nature of these incremental developments

गेल्या काही वर्षांत तुमच्या गृहनिर्माण युनिटमध्ये काही वाढीव घडामोडी घडल्या आहेत का? होय असल्यास, कृपया या वाढीव घडामोडींचे स्वरूप वर्णन करा

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17. How would you rate the following in your home?

तुम्ही तुमच्या घरात खालील गोष्टींना कसे रेट कराल?

Mark only one oval per row.

	Unsatisfactory असमाधानकारक	Satisfactory समाधानकारक	Very satisfactory अतिशय समाधानकारक
Access to drinking water पिण्याच्या पाण्याची सोय	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to electricity विद्युत प्रवेश	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural Light नैसर्गिक प्रकाश	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ventilation वायुवीजन	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spaciousness of home घराची प्रशस्तता	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drainage निचरा	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. How would you rate the following in your neighbourhood? \*

तुमच्या आजूबाजूच्या परिसरात तुम्ही खालील गोष्टींना कसे रेट कराल?

Mark only one oval per row.

	Unsatisfactory असमाधानकारक	Satisfactory समाधानकारक	Very satisfactory अतिशय समाधानकारक
Access to roads चांगले रस्ते	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Street Lighting स्ट्रीट लायटिंग	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Open Spaces - Parks, Gardens चांगली उद्याने	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Transport सार्वजनिक वाहतूक	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proximity to schools शाळांच्या जवळ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proximity to healthcare facilities आरोग्य सुविधांच्या जवळ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regular Waste Collection नियमित कचरा संकलन	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cleanliness स्वच्छता	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proximity to employment opportunities रोजगाराच्या संधी जवळ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Section 4: Socio-Cultural Acceptability

19. How safe and secure do you perceive your community to be after the upgrading project?  
अपग्रेडिंग प्रकल्पानंतर तुमचा समुदाय किती सुरक्षित आहे असे तुम्हाला वाटते?

Mark only one oval.

- Very Safe (अतिशय सुरक्षित)  
 Moderately Safe (माफक प्रमाणात सुरक्षित)  
 Not Safe (सुरक्षित नाही)

20. How would you rate you 'sense of belonging' to your community after the upgrading project?  
अपग्रेडिंग प्रकल्पानंतर तुम्हाला तुमच्या समुदायाशी संबंधित असल्याची भावना वाटते का?

Mark only one oval.

- High (खूप)  
 Moderate (मध्यम)  
 Low (कमी)

21. Are there community spaces (community centres, parks) available in your community after the slum upgrading project?  
अपग्रेडिंग प्रकल्पानंतर तुमच्या समुदायामध्ये सामुदायिक जागा (सामुदायिक केंद्र, उद्याने) उपलब्ध आहेत का?

Mark only one oval.

- Yes (होय)  
 No (नाही)

22. How frequently do you use the community spaces in your community?  
तुम्ही तुमच्या समुदायातील सामुदायिक जागा किती वारंवार वापरता?

Mark only one oval.

- Daily (दैनिक)  
 Weekly (साप्ताहिक)  
 Monthly (मासिक)  
 Rarely (क्वचितच)  
 Never (कधी नाही)

23. How do you perceive the relationships and interactions with your neighbors and fellow community members?  
तुमचे शेजारी आणि सहकारी समुदायातील सदस्यांशी असलेले संबंध आणि परस्परसंबंध तुम्हाला कसे समजतात?

Mark only one oval.

- High interaction (उच्च संवाद)  
 Moderate interaction (मध्यम संवाद)  
 Low Interaction (कमी संवाद)

24. How often do you celebrate festivals and cultural activities with your neighbours and other community members?  
तुम्ही तुमच्या शेजारी आणि इतर समुदाय सदस्यांसोबत किती वेळा सण आणि सांस्कृतिक उपक्रम साजरे करता?

*Mark only one oval.*

- Frequently (वारंवार)  
 Occasionally (अधूनमधून)  
 Rarely (कचितच)  
 Never (कधी नाही)

25. Are there any cultural community groups or organizations present in your community after the upgrading project? If yes, please specify.

अपग्रेडिंग प्रकल्पानंतर तुमच्या समुदायामध्ये कोणतेही सांस्कृतिक समूह किंवा संस्था आहेत का? जर होय, कृपया उदाहरणे द्या.

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#### **Section 5: Economic Acceptability**

26. Do you agree with the statement 'The upgrading project created new employment opportunities for the community'  
'अपग्रेडिंग प्रकल्पामुळे समाजासाठी रोजगाराच्या नवीन संधी निर्माण झाल्या' या विधानाशी तुम्ही सहमत आहात का?

*Mark only one oval.*

- Strongly disagree (अजिबात नाही)  
 Disagree (नाही)  
 Neutral (तटस्थ)  
 Agree (सहमत)  
 Strongly agree (पूर्णपणे सहमत)

27. How would you describe the burden faced by your household in terms of meeting the 10% monetary requirement for the project?  
प्रकल्पासाठी 10% आर्थिक आवश्यकता पूर्ण करण्याच्या दृष्टीने तुमच्या कुटुंबावर पडणाऱ्या ओझ्याचे तुम्ही वर्णन कसे कराल?

*Mark only one oval.*

- Heavy Burden (जड ओझे)  
 Moderate Burden (मध्यम ओझे)  
 Low Burden (कमी ओझे)

28. Have your household's income and economic conditions improved after the project?  
प्रकल्पानंतर तुमच्या कुटुंबाचे उत्पन्न आणि आर्थिक परिस्थिती सुधारली आहे का?

*Mark only one oval.*

- Significantly improved (लक्षणीय सुधारणा)  
 Somewhat improved (काहीशी सुधारली)  
 No Change (काही बदल नाही)  
 Worsened (बिघडले)

29. Have you received any support or training for income-generating activities as part of the project? Please describe  
तुम्हाला प्रकल्पाचा भाग म्हणून उत्पन्न मिळवून देणाऱ्या उपक्रमासाठी कोणतेही समर्थन किंवा प्रशिक्षण मिळाले आहे का? कृपया वर्णन करा

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30. In terms of your monthly expenses, how would you describe the burden of housing-related costs, such as maintenance, utilities, and other expenses  
तुमच्या मासिक खर्चाच्या संदर्भात, तुम्ही गृहनिर्माण-संबंधित खर्च, जसे की देखभाल, उपयुक्तता आणि इतर खर्चाचे वर्णन कसे कराल ?

*Mark only one oval.*

- Heavy Burden (जड ओझे)  
 Moderate Burden (मध्यम ओझे)  
 Low Burden (कमी ओझे)

#### **Section 6 : Concluding Remarks**

31. Do you feel that you have long-term security of tenure after the upgrading project?  
अपग्रेडिंग प्रकल्पानंतर तुम्हाला गृहनिर्माण कालावधीची सुरक्षितता आहे असे वाटते का?

*Mark only one oval.*

- Yes होय  
 Somewhat Yes काहीसे होय  
 Neutral तटस्थ  
 Somewhat No काहीसे नाही  
 No नाही

32. Do you feel that your participation in the upgrading process helped in achieving better housing outcomes for yourself?

अपग्रेडिंग प्रक्रियेतील तुमच्या सहभागामुळे तुमच्यासाठी घरांचे चांगले परिणाम साध्य करण्यात मदत झाली असे तुम्हाला वाटते का?

Mark only one oval.

- Yes होय
- Somewhat Yes काहीसे होय
- Neutral तटस्थ
- Somewhat No काहीसे नाही
- No नाही

33. Do you have any additional comments or suggestions regarding regarding the upgrading project and its outcomes?

अपग्रेडिंग प्रकल्प आणि त्याच्या परिणामांबद्दल तुमच्याकडे काही अतिरिक्त टिप्पण्या किंवा सूचना आहेत का?

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## Appendix 4: Codebook

Code	Code Group
Improvement of physical condition	Physical Acceptability
Issues with physical outcomes	
Issues with service provision	
Satisfaction with housing quality	
Satisfaction with service provision	
Incremental additions	
Use of Community space	Socio-Cultural Acceptability
Perception of safety	
Participation in cultural activities	
Sense of belonging	
Financial stability	Economic Acceptability
Heavy financial burden due to project	
Improvement in economic condition	
Living costs	
Employment condition	
Availability of employment opportunities	
Participation - construction	Participation
Participation - design and planning	
Participation - evaluation	
Satisfaction with participatory process	

