



Informal Housing, Inadequate Property Rights

Understanding the Needs of India's Informal Housing Dwellers

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EXECUTIVE SUMMARY

India's Informal Housing Context

In India, as in many other developing countries, urban population growth and the shortage of planned affordable housing have led to 26–37 million households (33–47 percent of the urban population) living in informal housing (slums and unauthorised housing).¹ Slum dwellers often live in poor conditions and face the threat of eviction or demolition. Unauthorised housing dwellers usually have some basic services (such as electricity and water). However, they may lack proper roads, sewage, or drainage, and they also face the potential threat of demolition.

The Indian government has tried many different approaches to help improve living conditions for informal housing dwellers, but without sizeable impact. Redeveloping and relocating slums has not scaled, improving service provision has been slow, and “legalising” unauthorised housing has been limited. Unfortunately, informal housing is going to exist for the foreseeable future in India, and there is an urgent need to improve the lives of people who are living in such sub-optimal conditions.

This report applies a property rights lens to segment the different types of informal housing, to understand the size and the needs of these segments, and to identify potential solutions to meet these needs. The research focuses specifically on owner-occupants,² since they are most likely to invest in improving their housing as they will benefit from these improvements—both as residents and as owners of the asset.

Research for the report involved reviewing 40 reports, speaking to 56 experts, conducting around 200 qualitative interviews of informal housing dwellers in 90 settlements, conducting quantitative interviews of 517 informal housing dwellers in 40 settlements in four cities (Delhi, Pune, Hyderabad, and Cuttack), gathering feedback on the findings in a workshop with 10 experts, and feedback on a draft report from 21 experts.

1 Based on the Organisation for Economic Co-operation and Development (OECD) definition of informal settlements: “Areas where groups of housing units have been constructed on land that the occupants have no legal claim to, or occupy illegally (slums); OR unplanned settlements and areas where housing is not in compliance with current planning and building regulations (unauthorized housing).”

2 In this report “owner-occupants” are defined as individuals who are in possession and occupy a dwelling unit. In contrast with owner-occupants, “renters” pay rent, and are typically temporary residents.

Defining Property Rights

This report goes beyond defining property rights from a purely “real estate” perspective (e.g. right to use, develop, and transfer) to building a life on the property. Therefore, the bundle of property rights could also include the right to inherit, basic services, and formal mortgage:

- **Formal housing dwellers** have defensible and documented rights (e.g., property registration documents). These are referred to as *de jure* rights.³
- **Informal housing dwellers**, on the other hand, lack some or all the documentation and may contravene municipal development plans or land regulations. Therefore, they could be evicted or their houses could be demolished. Informal housing includes a spectrum of housing from unauthorized housing where the residents have uncontested ownership of the land and tolerance by the government implying *de facto*⁴ rights to use and transfer their dwelling to notified slums where residents cannot be evicted without due process (i.e., they have some *de jure* rights) to unidentified slums where the residents have no property rights.

Segmenting Informal Housing Using Property Rights

There are six categories of housing in India, including formal housing. Some categories have different names in different government records and some categories (e.g., unauthorised housing, which represents over 15 percent of urban population) are not defined or tracked by most state governments.

This report classifies the five categories of informal housing into three segments:⁵

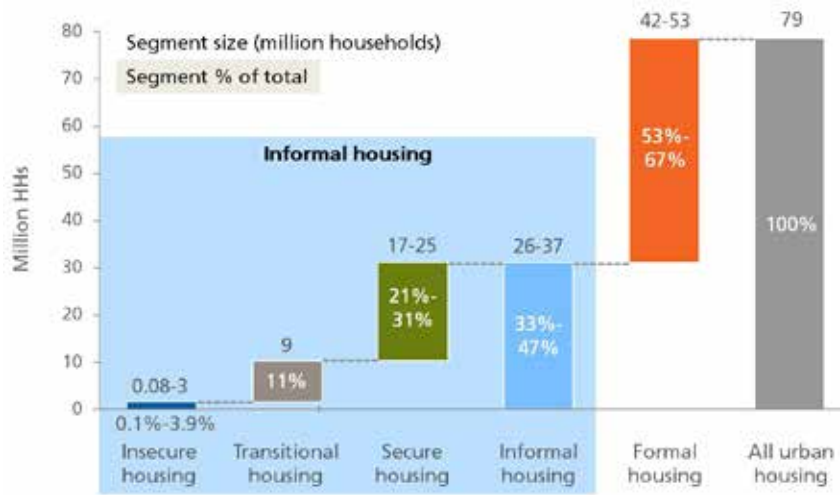
- **Insecure housing** has neither *de jure* nor *de facto* rights since their existence and/or location is not in any government records. These are typically new settlements and face a high risk of forced eviction.
- **Transitional housing** exists in one or more government records and is progressively gaining *de facto* rights to use.
- **Secure housing** has one or more *de jure* property rights and hence, at the very least, residents cannot be evicted without due process.

3 Rights that exist because of formal law (e.g. right to use is enforceable by law in a formally registered leasehold property).

4 Rights that exist in reality or “on the ground.” They may be different from *de jure* rights. (e.g. a person’s right to possess and occupy a property is recognized by the community irrespective of the *de jure* rights or lack thereof).

5 The five categories are: unidentified slums; identified slums; recognised slums; notified slums; and unauthorised housing. The first falls in the insecure segment, the next two are counted as transitional housing and the last two are regarded as secure.

FIGURE 1: INFORMAL HOUSING



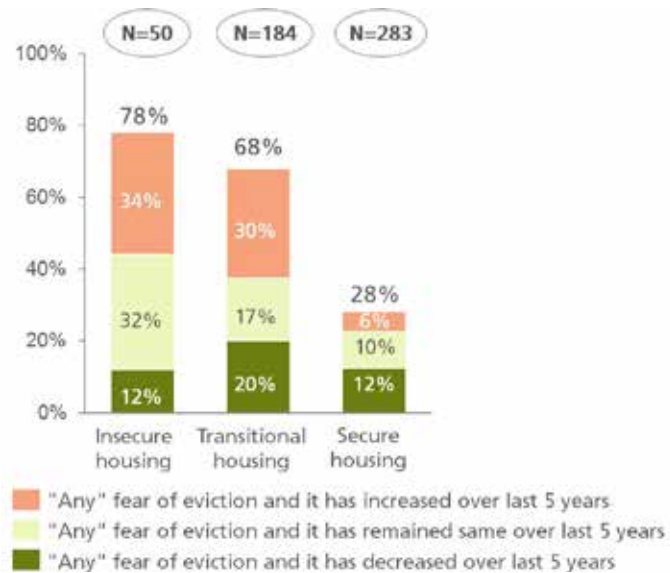
Source: Census 2011, NSSO, FSG estimates; State-level data; Municipal Corporations

Analysing Informal Housing Living Conditions and Needs

Families living in informal housing are a vibrant socio-economic group. Research for this report revealed that more than 75 percent of families in this segment (except insecure housing families) own a TV and a mobile phone. An estimated 75 percent of informal housing families live in “pucca” (or “durable” homes). Their median self-reported household incomes (likely understated) are higher than the World Bank’s poverty line.

Researchers asked families if they had “any” fear of eviction or demolition. The percentage of families with “any” fear of eviction or demolition was high in insecure and transitional housing, but was much lower in secure housing (see Figure 2). In cities like

FIGURE 2: FEAR OF EVICTION



Source: FSG primary interviews of 517 respondents

Delhi, where there have been multiple evictions, more families have “any” fear of eviction. In spite of this sense of insecurity, over 75% of the families who think they are allowed to construct are planning home improvements (e.g., brick walls, toilets, additional floors). In qualitative interviews, families justified this investment since they felt eviction was not imminent; another reason could be that other options to improve living conditions were beyond their reach.

Governments are providing services to informal housing and access to services even in slums is high. For example, the 2011 Census shows that 91 percent of households in slums have access to electricity, 65 percent have access to water taps, and 66 percent have individual toilets. Our 517 quantitative interviews showed similar results (see *Figures 15, 17, and 19 on Pages 34-36*). However, there is a marked drop in access to these services when comparing secure housing to transitional housing and to insecure housing. Even when access to services is high, the availability, quality, and quantity of service provision can be poor (e.g., compared to the recommended one toilet seat per 50 people, in reality the ratio can be as low as one toilet seat per 2,500 people; water availability for 1,400 cities has been shown to be three hours per day, leading to long waiting times or unavailability for people using shared services—see *section Statistics Mask the Poor Quality of Services on Page 37*). This is reflected in the top stated needs of informal households highlighted in this report—toilets (44 percent), water (36 percent), and drainage (28 percent) (see *Figure 20*). In contrast, improved access to medical facilities and public transport were among the lowest “top stated needs.”

Government’s Perspective on Informal Housing

The government’s philosophy has shifted from relocating families to improving living conditions *in situ* by providing basic services and thereby implicitly giving *de facto* property rights. While granting formal property rights is desired by the residents, policy makers are uncomfortable condoning illegal activity (e.g., squatting). Policy makers are comfortable giving slum dwellers basic services and limited property rights (e.g., the right to use, the right to transfer by inheritance). However, key challenges include defining the criteria for allocating property rights to prevent vested interests and/or unintended beneficiaries (e.g., slumlords, high-income families). Policy makers are comfortable regularising unauthorised housing, as the owner-occupants have uncontested ownership of the land and the contraventions are considered less severe (compared to squatting). There have been multiple waves of regularisation, typically with the imposition of small fines.

The Way Forward

Informal housing has proliferated in India due to the persistent shortage of formal low-income housing. There is an urgent need to **increase the supply of low-income housing** (various ways

to do this are suggested by this report's authors in *State of the Low-Income Housing Market*).⁶ However as informal housing is likely to exist for the foreseeable future, there is also a need to **improve living conditions for existing informal housing dwellers**. This report offers some recommendations for specific housing segments:

- **Across informal housing:** Improve the quality, availability, and quantity of basic services provided by the government (e.g., water, sanitation, drainage, roads).
- **Insecure housing:** Provide identity cards to 50 percent of households that do not have them, thereby giving them a “voice” in the city and fundamentally enhancing their life opportunities.
- **Transitional housing:** Implement interventions to improve services including decentralised sewage infrastructure, clean drinking water plants, last-mile water pipe networks, and greater unsecured credit for home improvements (and classifying these loans as priority sector lending). Interventions to strengthen property rights include GIS mapping and self-enumeration, digital document lockers, granting bundles of property rights (including notifying slums).
- **Secure housing:** While secure housing has access to basic services, the quality varies considerably and hence some of the interventions for transitional housing (e.g., decentralised sewage infrastructure, clean drinking water plants) are applicable here too. Interventions to strengthen property rights include regularising unauthorised housing, creating a credit guarantee fund, and enabling formal mortgages (and classifying such loans as priority sector lending).

6 Monitor Deloitte, *State of the Low-Income Housing Market*. 2013, Chapter 7: Way forward, p36.



1. INFORMAL HOUSING IN INDIA

In India, as in many other developing countries, urban population growth and the shortage of planned affordable housing have forced millions of people to live in slums and unauthorised housing—referred to here as “informal housing.”¹

There are between 65 million² and 98 million³ people living in slums across India (representing around 17⁴–24⁵ percent of the country’s urban population). Living conditions are typically poor and occupants (owner-occupants) and renters (approximately 30 percent⁶ of the total slum population) often live with the threat of eviction or demolition.

The government wants to improve living conditions for people living in informal housing and has tried multiple approaches, ranging from relocation to *in situ* redevelopment:

- **Relocation:** Owner-occupants tend to oppose relocation because it disconnects them from physical and social infrastructure, as well as potentially disrupting their livelihoods.⁷ A significant number of the government-supplied units lie vacant for reasons ranging from inconvenient locations to insufficient unit sizes for family needs.⁸
- **Redevelopment:** Redevelopment (*in situ*) by the government alone is economically unviable at the scale required. Government-funded redevelopment projects (in partnership with private sector developers) are economically and operationally viable when the land where slums are located is expensive. In such partnerships, private sector developers cross-subsidise free housing for slum dwellers with additional housing or development rights, which have a high market

1 Based on the Organisation for Economic Co-operation and Development (OECD) definition of informal settlements: “Areas where groups of housing units have been constructed on land that the occupants have no legal claim to, or occupy illegally (slums); OR unplanned settlements and areas where housing is not in compliance with current planning and building regulations (unauthorized housing).”

2 Census 2011.

3 UN Millennium Development Goal Indicators, 2014.

4 Census 2011.

5 UN Millennium Development Goal Indicators, 2014.

6 Census 2011.

7 Kapse, V., Pofale, A., Mathur, M. “Paradigm of Relocation of Urban Poor Habitats (Slums): Case Study of Nagpur City” *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering* (2012).

8 FSG expert interview.

REPORT DEFINITIONS

In this report **“owner-occupants”** are defined as individuals who are in possession and occupy a dwelling unit. In contrast with owner-occupants, **“renters”** pay rent, and are typically temporary residents.

This report focuses only on owner-occupants and not renters, as owner-occupants are most likely to invest in improving their housing as they benefit from it both as residents and as owners of the asset.

value.⁹ Contrary to common perception, only a limited number of slums, mostly those in metropolitan areas, are built on expensive land. According to one expert: *“It is a common misconception that slums occupy prime land. Often they occupy land which is on the periphery [low market value] or unfit for habitation.”*¹⁰ Mumbai has attempted a number of redevelopment approaches. Between 1995 and 2014, for example, more than 200,000 housing units were built under slum rehabilitation, state government, and central government schemes while another 108,000 are still under construction.¹¹ This is against a backdrop of 5.2 million¹² people (1.13 million households) living in Mumbai’s slums.

Due to increasing urbanisation, the shortage of planned, affordable housing, and limited success or scale of redevelopment or relocation, it is likely that slums will exist in India for years, if not decades, to come. Hence there is a need to find effective ways to improve the lives of families who are living in sub-standard conditions. One solution is for owner-occupants in slums to invest in improving their homes. In order to invest, however, many global experts believe that people need to feel secure in the knowledge that they will not be evicted, or that their homes will not be demolished. Evidence has shown that the improved perception of security stimulates investment in home improvement.¹³ *Prima facie*, due to limited property rights, owner-occupants of informal housing who have the financial capacity to make home improvements may not feel secure enough to invest, nor are they able to leverage their homes to get a formal mortgage to make these investments.

In addition to slums, an estimated 15-25 percent of India’s urban population (or around 12-20 million households) live in “unauthorised housing”, i.e. housing where the land is owned or formally leased by the owner-occupant but one or more required approvals are missing (e.g., land use conversion, building plans). Unauthorised housing often comes up on the edge of cities

9 Slum redevelopment schemes have two broad models. In one model, developers build housing for slum dwellers on part of the land and develop the remaining area for sale at market rates. In the other model, developers redevelop a slum but get Transfer of Development Rights (TDR), which can increase the saleable area in projects elsewhere or can be sold to other developers.

10 FSG expert interview.

11 Praja. *Report on The State of Affordable Housing in Mumbai*, 2014.

12 Census 2011.

13 Payne, B. G., Durand-Lasserve, A., & Payne, G. *Holding On: Security of Tenure – Types, Policies, Practices and Challenges*, 2012.

on agricultural land or undeveloped land that may not have been zoned for residential use when the housing was built. Unauthorised housing includes not only low-income households but also instances of middle- to high-income families living in farm houses and multi-storey structures. This type of housing may lack proper roads, sewage infrastructure, or drainage. Unless it is legalised, which happens infrequently, unauthorised housing also faces the threat of demolition. Owner-occupants of unauthorised housing cannot get a formal mortgage because their property is not formal. Unauthorised housing may also be growing with urbanisation. However, since this is not tracked consistently across the country, the extent and growth of unauthorised housing is not fully known.

“Unauthorised housing” often comes up on the edge of cities on agricultural land or undeveloped land that may not have been zoned for residential use when the housing was built.

From a societal perspective, it is important to identify levers to improve the lives of the millions of people living in informal housing across India. This paper applies a property rights lens to explore this issue and to identify potential solutions at a high level for stakeholders to explore and implement.



2. OBJECTIVES AND APPROACH FOR THE REPORT

OBJECTIVES OF THE REPORT

Informal housing is not homogenous. Living conditions differ significantly, as do perceptions among occupants of security and subsequent willingness to invest in their homes. Hence the needs and potential solutions may also vary across different types of informal housing. Applying a property rights lens, which influences perceptions of security, could help to segment the different types of informal housing and identify appropriate solutions for improving the lives of residents. Accordingly, the objectives of the report are to:

- Use property rights to segment informal housing;
- Understand needs of customers with relation to housing across segments;
- Understand the government's approaches and challenges in strengthening property rights;
- Identify interventions (at a high level) that are effective and feasible to help improve people's lives.

APPROACH TO THE PROJECT

This project had three phases starting with understanding informal housing through research, developing interventions, and dissemination.

RESEARCH TO UNDERSTAND INFORMAL HOUSING

Desk Research

The team reviewed 40-50 publicly available reports to understand the categories of housing, land tenure, and property rights in India. The team also identified major challenges faced in informal housing from the reports. The team collected data on slums from census, National Sample Survey, and urban local bodies to help identify the housing categories and the differences across categories. This data also helped estimate the size of the different housing categories, and informed the design for field research (described below).

Expert Interviews

The team conducted in-depth interviews with more than 56 experts to understand the nuances of informal housing. Interviews focused on the evolution of informal housing, the types and utility of informal and formal property rights, the impact of slum acts and policies, on-the-ground differences between the various informal housing categories and inputs on the design of field research.

Field Research

The field research included two stages—qualitative field research to develop hypotheses followed by quantitative field research to gather data on families and their perceptions. Renters were excluded from the field research.

- **Qualitative Field Research:** Qualitative interviews were conducted across five cities (i.e. Delhi, Pune, Hyderabad, Mumbai, and Cuttack) covering ~200 respondents across ~90 slums and unauthorised housing to gain a better understanding of informal housing categories and to gather material for the key hypotheses on perceptions, customer behaviour, key opportunities and challenges. Refer to Appendix 1 for criteria used to select cities and settlements.
- **Quantitative Field Research:** The findings from qualitative interviews informed the design of a quantitative survey. A preparatory phase of mapping over 80 slums¹ and unauthorised housing across the four survey cities (i.e. Delhi, Pune, Hyderabad, and Cuttack) was completed to ensure the different segments and types of informal housing were represented in the quantitative survey. A structured survey was carried out with 517 families living in informal housing across 40 settlements in the four cities to gather data on the key hypotheses.

DEVELOPING INTERVENTIONS

An exploratory set of high-potential interventions were developed based on desk research, interviews with experts and stakeholders, and inputs from owner-occupants in informal housing. We also studied reports to identify best practices and potential interventions from other countries in Asia and South America. The potential impact of each intervention was assessed based on the size of housing category and applicability of intervention. A working session was conducted with 10 experts to gather feedback on potential interventions and suggestions for improvements.

¹ A full list of settlements is included in Appendix 1.

DISSEMINATION

A draft report was shared with experts and 21² provided comments and feedback on the findings, as well as on the interventions. These suggestions and feedback were used to refine and prepare this final report, which will be actively disseminated to a diverse base of stakeholders including government, multilateral and bilateral agencies, private foundations, and the private sector. An ongoing objective of the study is to share the knowledge and discuss the high-potential interventions with key stakeholders.

² A full list of reviewers is included in the Acknowledgements.



3. PROPERTY RIGHTS IN THE INDIAN CONTEXT

PROPERTY RIGHTS IN THE GLOBAL CONTEXT

Land tenure and property rights are relationships between individuals, land, and property. According to Payne et al., property rights are defined as “*recognised interests in land or property vested in an individual or group and can apply separately to land or development on it (e.g., houses, apartments or offices).*”¹ In other words, property rights determine the use of land or the development on it.

Property rights, when defined from a narrow “real estate” perspective, include rights such as: use (e.g., residential, commercial, agricultural), transfer, gift, or restricting others from its use. However, in taking a household-centric view, which entails building a life on a property, the definition of property rights could expand to include rights such as developing the land, basic services, and formal mortgage. Thus, property rights could be better viewed as a bundle of rights, which include, but are not limited to:

- Use (residential, commercial, etc.);
- Development;
- Transfer by inheritance;
- Transfer by sale;
- Basic services² (e.g., electricity, water, sanitation);
- Formal mortgage.

“In this day and age, it is unconceivable to not consider access to basic services as a property right.” – Noted urban planner

¹ Payne, G., Durand-Lasserve, A. *Holding On: Security of Tenure – Types, Policies, Practices and Challenges* (p. 8), 2012.

² Experts argue that, in today’s world, basic services are an essential right irrespective of land tenure. The report also draws on Payne, G., Durand-Lasserve, A. (p. 21) to take a household-centric view and include basic services as a property right.

A “bundle of property rights” implies that individuals or groups may have one or more property right(s) in various combinations.³ Public housing is a common example where an occupant has only the rights to use and basic services, with no other rights from the bundle. A property right can also be restricted by a variety of conditions such as time (use is for a limited period such as 10 years or 99 years, which is typical when government leases land to citizens) or socio-economic category (use or exchange is only permitted between disadvantaged groups, low-income families). Property rights are also subject to regulations (e.g., use is governed by or has to comply with city zoning or development plans, which demarcate residential, commercial, public spaces etc.).

Security of tenure is influenced by both, formal and informal systems. Property rights are one among many mechanisms that positively influence security of tenure.

Individually or in combination, land tenure and property rights contribute to an individual’s security of tenure, which is defined by Payne et al. as “the right of all individuals and groups to effective protection by the state against forced evictions.”⁴ Payne further states that “security of tenure derives from the fact that the right of access to and use of the land and property is underwritten by a known set of rules, and that this right is justiciable.”⁵

However, security of tenure is influenced not only by the strength of formal systems (e.g., law and judicial processes) but also by informal systems (e.g., tolerated occupation, customary occupation), which is common in many slums across the world. Property rights such as use, basic services, and mortgage positively influence security of tenure, which in turn has the potential to incentivise individuals to invest in improving their homes and living conditions.

UNDERSTANDING PROPERTY RIGHTS IN THE INDIAN CONTEXT

PROPERTY RIGHTS IN FORMAL HOUSING

Under the Indian formal housing system, land tenure and property rights are determined by documents. Land tenure typically exists in the form of freehold and leasehold, which are documented in the records of the revenue (record of right) and/or department of registration and stamps (e.g., registered sale deed or lease agreement). In the urban context, the formal records in conjunction with municipal development plans determine the bundle of property rights. The rights and restrictions are clearly documented and enforceable and thus are *de jure* rights.

3 FSG expert interview.

4 Payne, G., Durand-Lasserve, A. (p. 8).

5 Ibid.

PROPERTY RIGHTS IN INFORMAL HOUSING

Informal housing is characterised by the lack of some or all of the records and/or contravention of municipal development plans and land regulations. The violations imply that the government is legally empowered to evict slum dwellers and/or to demolish the housing.⁶ The government recognises that informal housing has come up largely due to the absence of adequate formal affordable housing stock (both ownership and rental).

- **Property Rights in Slums:** The government also recognises that the majority of slum housing is cramped, has sub-par housing structures, and lacks basic infrastructure (e.g., roads, water, drainage, and sanitation). The government has historically tried to improve conditions for people living in slums, but has been constrained as there were no legal grounds for it to disregard illegal activity (e.g., squatting, violation of building codes) by slum occupants. Condoning squatting disregards the land owners' rights (e.g., right to use). Also legalising construction without all required approvals disregards the purpose of urban planning. The government needed a vehicle to justify improving the lives of families living in informal housing despite legal violations. Legislation in the form of Slum Acts⁷ was introduced (starting in the 1950s) by the central and state governments. This empowered the state to intervene (via notification in the official gazette) with the stated aim of improving living conditions. The Act empowers the state to notify a settlement as a slum and acquire the land under eminent domain, which curtails the landowners' right to retain or sell the land unless the state's acquisition is successfully challenged and defeated in court. In practice, as soon as a slum is notified, the land loses most of its value.⁸ Notification of a slum allows government agencies (e.g., Slum Board or municipality) to provide basic infrastructure and services (e.g., sewage,

DE JURE AND DE FACTO RIGHTS

De jure rights: Rights that exist because of formal law (e.g. right to use is enforceable by law in a formally registered leasehold property).

De facto rights: Rights that exist in reality or "on the ground." They may be different from *de jure* rights. (e.g. a person's right to possess and occupy a property is recognized by the community irrespective of the *de jure* rights or lack thereof).

Source: Food and Agriculture Organization (FAO), *Land Tenure and Rural Development* (Glossary of terms), 2002.

6 FSG expert interview.

7 The Government of India passed the Slum Areas (Improvement and Clearance) Act, 1956; examples of Slum Acts passed by state governments include: Maharashtra Slum Areas (Improvement, Clearance And Redevelopment) Act, 1971; Andhra Pradesh Slum Improvement (Acquisition of Land) Act, 1956; The Karnataka Slum Areas (Improvement And Clearance) Act, 1973; The Tamil Nadu Slum Areas (Improvement and Clearance) Act, 1971.

8 Under a Slum Act, landowners are entitled to receive compensation that is usually substantially below market value. The asset is also highly unlikely to have buyers as the land is encroached and eviction is a long process and without guarantee. See Appendix 3 for an example of how notification under Slum Acts can impact the value of the land.

water) to improve living conditions, even on land that is not zoned for residential use. The Act also provides slum occupants with the right to due process of notice, appeal, compensation or

Notification of slums under the relevant Slum Act empowers the State to intervene and improve the living conditions of occupants irrespective of the legality of the occupants' tenure.

rehabilitation in the event of eviction. **Effectively, the "Slum Act" therefore restricts the rights of the landowner and protects occupants from forced or arbitrary eviction, as well as giving the occupants a *de facto* right to use the land.** However, there is variance across states in notifying public and privately-owned land as authorities are usually inclined towards notifying one or the other depending on local conditions.

- **Property Rights in Unauthorised Housing:** In the case of unauthorised housing, state governments recognise that the violation of development plans has led to sub-par infrastructure. And the unauthorised status prevents owner-occupants from getting a formal mortgage on their home. State governments sporadically announce regularisation schemes, which specify the criteria for "acceptable" violations and legalise unauthorised housing structures typically in exchange for a fee (e.g., fine and development charges). Following regularisation, the settlement becomes formal, is provided with services, if these are not already available, and owner-occupants can then get a formal mortgage on their asset (subject to owner-occupant meeting other requirements by the lender such as income level).

Justification for Slum Acts

The government's justification for passing Slum Acts (at the central and state government levels)—and to provide *de facto* property rights to occupants who are otherwise illegally squatting and have no claim to the land—is based on the Directive Principles of State Policy (DPSP). DPSP serves as a guideline for states on developing policy. Specifically, Article 39 of the DPSP advises that the state shall, in particular, direct its policy towards securing that "*ownership and control of the material resources of the community are so distributed as best to subserve the common good.*" This directive has enabled the state to enact numerous land tenure reforms to redistribute land resources.⁹ In multiple legal cases,¹⁰ the judiciary has also interpreted the fundamental right to life to include the right to shelter and has ruled evictions as illegal, since this deprives individuals of their right to a livelihood. Nevertheless, the property rights to use and basic services are not fundamental rights and courts have not set a consistent precedent, since some rulings have evicted slum occupants. Therefore, slum occupants can only hope that their slum will get notified so that they will get *de facto* rights to use and basic services.

9 Basu, D. *Introduction to the Constitution of India* (22nd ed. p. 172), 2015.

10 *Olga Tellis vs. Bombay Municipal Corporation*. Retrieved from Honourable Supreme Court of India website (<http://judis.nic.in/supremecourt/imgs1.aspx?filename=9246>); *Ahmedabad Municipal Corporation vs Nawab Khan Gulab Khan*. Retrieved from Honourable Supreme Court of India website (<http://judis.nic.in/supremecourt/imgs1.aspx?filename=14933>); *T.M. Prakash vs The District Collector*, retrieved from Honourable Madras High Court website (http://judis.nic.in/judis_chennai/Judge_Result_Dispatch.asp?MyChk=43731).

Slum notification has not kept pace with the growth of slums over the years. Nevertheless, many slums that have not been notified have been provided with basic services (e.g., electricity, community water taps, and toilets) to varying degrees. The services are provided by the state or municipal government in keeping with the spirit

of the DPSP. Experts interviewed by FSG suggest that notification of slums has nearly ground to a halt but confirm that access to services is improving. In the process of preparing lists for the provision of basic services under various schemes (e.g., JNNURM),¹¹ state governments and urban local bodies (ULBs) are implicitly recognising slums.

Notification of slums has almost ground to a halt but access to basic services is improving.

BENEFICIARY LISTS AND THE CONSTANT SEARCH FOR FORMAL DOCUMENTATION

Notification or provision of basic services happens at a settlement level but the benefits have to be awarded at a household level (e.g., leasehold document, individual toilets). The government prepares “beneficiary lists” with defined criteria and only the families on the beneficiary lists are awarded the benefits. The criteria for the different beneficiary lists vary (residence in the settlement at the time of a cut-off date announced by the government, income, etc.). Occupants want to get onto these lists and so they are always gathering evidence that will allow them to qualify for the lists. Unlike formal housing, however, transactions (sale, transfer) are not recorded in government registers for informal housing, which makes the task of gathering evidence even more challenging. Records of electricity bills, municipal slum surveys, letters from local politicians, letters from non-governmental organisations (NGOs), local taxes paid, etc., are collected to prove their identity and residence at the location.

Renters typically have proof of identification but not of their address, since rental agreements are informal and unwritten. This means that they are often not able to get their names on to beneficiary lists.

¹¹ JNNURM: Jawaharlal Nehru National Urban Renewal Mission.

4. HOUSING TYPOLOGY AND ASSOCIATED PROPERTY RIGHTS

INFORMAL AND FORMAL HOUSING CATEGORIES IN INDIA

One major challenge in understanding informal housing in India is the lack of comprehensive, consistent, and well-defined terminology for the different housing categories. Official sources—including governments at the central, state and local level, the census and National Sample Survey—sometimes use different terminology for the same categories. Some categories have not been defined by some state government authorities and hence these categories do not exist on those state government records. By consolidating numerous sources, the following categories of informal and formal housing in India have been identified:

- **Unidentified Slum:** A settlement with inadequate living conditions and less than 60 households will not be classified as a slum in the census. Unidentified slums do not exist in the records of the government at any level. Unidentified slums typically have temporary, rudimentary housing structures made of cloth or plastic sheets and lack most basic services (e.g., electricity, water, and sanitation). The settlements are typically built on empty land on the outskirts of the city, untenable land, or even pavements in a city.
- **Identified Slum:** A settlement comprising of 60 or more households that is classified as a slum by the census as per its definition. The settlement is not, however, recognised by the state government as a slum in any of its records, and therefore owner-occupants do not have any formal rights in the event of eviction. In some states, identified slums may have basic services, either at a community level (e.g., community water stand pipe, community toilet) or household level (e.g., electricity). Examples of this are in Pune, where “undeclared” slums, which are not considered eligible¹ for basic services, receive water and electricity provision from the ULB.
- **Recognised Slum:** A settlement that is recognised as a slum by the state or municipal government in its records. The classification is based on sub-par living conditions in the settlement. However, the slum is not notified in the state’s official gazette under the applicable state Slum Act. Thus owner-occupants do not have formal rights in the event of eviction. The terms “declared,” “regularised,” or “non-notified” are used in some states instead of “recognised.”

¹ Pune Municipal Corporation. *Revised City Development Plan for Pune – 2041* (p. 72), 2013.

Recognised slums may have basic services at either individual household or community level.

- **Notified Slum:** A settlement that is notified as a slum in the state government's official gazette under the applicable Slum Act. Owner-occupants have the formal right to due process of notice, appeal, and compensation or rehabilitation in the event of eviction. Households in notified slums typically have access to basic services at individual or community level.
- **Unauthorised Housing:** Unlike slums on land that has typically been encroached upon, unauthorised housing is a settlement where the owners of the housing have freehold or leasehold rights over the land. The housing is unauthorised because it lacks some approvals (e.g., conversion of land use from agricultural to non-agricultural, building plan approval) or violates city development plans (e.g., housing on land not marked for residential use).
- **Formal Housing:** Settlements where owner-occupants typically have freehold or leasehold rights over the land. The houses have most if not all approvals required for residents to occupy and live in the house (e.g., "occupancy certificate" received from the municipality). In addition to "planned housing," formal housing also includes:
 - Unauthorised housing that has been "legalised" or "regularised" by the government (e.g., violations condoned in exchange for payment of a penalty and/or voluntary demolition of illegal parts of the structure). Examples include post-eviction resettlement colonies, regularised unauthorised colonies in Delhi, and settlements on *Gunthewari* lands in Pune.
 - Housing in heritage zones (e.g., Shahjahanabad, Delhi),² religious body lands (e.g., Wakf land), defence cantonments, and urban villages.³

2 Dutta, B., Bandyopadhyay, S. Regeneration of Heritage Urban Space of Delhi, Shahjahanabad, the Walled City, 2012.

3 Urban villages are dense settlements, located throughout the city, which largely consist of previously rural villages that have been incorporated into urban areas as the city expanded. This is illustrated in the case of Delhi in Bhan et al. Planned Illegalities, 2013.

OWNER-OCCUPANTS WITH PATTA

Across recognised slums, notified slums, and unauthorised housing, some owner-occupants possess "patta." In the urban context, a patta is usually a document conferring leasehold or delayed/conditional freehold rights for the purpose of housing. A patta is a limited-term (e.g., 10-15 years) leasehold agreement, typically renewable, which gives only a few rights (e.g., use, gift; exchange or in some cases even mortgage). The agreement is between the government and the patta holder.

Households with patta will be a part of secure housing from a property rights perspective. However, in this report, households with patta will not be treated as a separate category since informal housing settlements may include a mix of households with and without patta. During primary research, both qualitative and quantitative, the FSG team could not distinguish between the patta and non-patta households within the same settlement and hence the data is at the settlement level. While individual-level interventions (e.g., housing finance) may be applicable specifically to households with pattas, many of the interventions are at the settlement-level (e.g., water pipe, sewage) and apply to households with or without patta.

SEGMENTING URBAN HOUSING ON THE CONTINUUM OF TENURE SECURITY USING A PROPERTY RIGHTS LENS

Just as informal housing settlements evolve spatially and structurally over time, its occupants are also transitioning along a continuum of tenure security. Over time, occupants gradually gain *de facto* and/or *de jure* property rights. A range of factors such as state policy, political patronage, and tenability of the land could determine an occupant's level of tenure security. This report attempts to classify informal housing into three broad segments along the continuum of tenure security (see Figure 3, Page 22).

- **Insecure Housing:** Occupants in insecure housing have neither *de facto* rights nor *de jure* rights, since their existence and their place of residence is “unknown” to the state (they do not exist in the records of the state government or ULB and the census).⁴ They often do not have identity cards that place them as residents in the city. They typically live in new settlements that are less than five to 10 years old⁵ and they may have been evicted multiple times. They face a high risk of arbitrary or forced evictions, typically by the landowner, and yet it is common for them to return to the same or nearby locations due to lack of alternatives. **Unidentified slums** fall into this segment.
- **Transitional Housing:** Occupants living in transitional housing exist in one or more government records (e.g., identified as a slum in the census or by the ULB). The settlements can range in age from a number of years to a few decades. Transitional housing's occupants actively seek multiple documents to link their identity with their residence as well as establishing the length of tenure in the house and settlement. They leverage their political patronage,⁶ apply for welfare schemes,⁷ and appeal to ULB officials to get basic services (at the community or individual household level), and enter formal government records (e.g., through revenue department surveys). In effect, they are progressively gaining *de facto* property rights to use. Owner-occupants in **identified slums** and **recognised slums** could be classified as transitional housing because, while they may not have all the rights of secure housing, their settlements' existence in the city is established either in state government/ULB records (recognised slum) or in the census (identified slum).



Amrabhi village—an unidentified slum in Delhi

4 Census will not classify a settlement as a slum if it has less than 60-70 households.

5 FSG expert interview and interviews with 50 occupants in unidentified slums across four cities.

6 FSG expert interview.

7 Term used by government of India for support programs.

- **Identified slum** owner-occupants attempt to get their settlement and house listed in state government/ULB records and to gain access to basic services. The owner-occupants only have a *de facto* right to use and while they may apply, they cannot demand basic services. Despite the lack of the property right to transfer, transactions take place using legally untenable forms (e.g., “seller” granting power of attorney to the “buyer” or bilateral contracts).
- In **recognised slums**, owner-occupants have the *de facto* right to use, which is manifested in the “tolerated occupation” by the state or private landowner. Age of the slum, political capital of the owner-occupants and state government/ULB welfare policies influence their *de facto* rights. They may be “eligible” for basic services (at household or community level) and may also qualify for government housing schemes subject to scheme criteria (e.g., cut-off date, below-poverty-line cards).

Recognised slums have relatively higher tenure security than identified slums. However, the state Slum Act is not applicable in both these types of slums, and therefore owner-occupants do not have the formal right to due process in the event of eviction. An exception could be if the state government has an alternative welfare policy for owner-occupants in slums rather than notified slums.

- **Secure Housing:** Occupants living in secure housing have one or more formal, *de jure* property rights. At the very least they cannot be evicted without due process and have legally tenable documentation to contest their eviction. Secure housing includes unauthorised housing and notified slums.
 - **Unauthorised Housing:** Owner-occupants may have a limited right to use due to zoning regulations (e.g., land marked for agriculture). Their ownership of the land is typically uncontested and they have *de jure* rights to gift or exchange the land. They usually cannot



An identified slum in Vithalwadi, Pune, which is adjacent to a recognised slum but has some basic services (e.g., electricity)



Jagdish Nagar—a recognised slum in Hyderabad

get a mortgage for the property (formal housing finance providers usually do not accept agricultural land or unauthorised housing as collateral). Access to basic services may be limited if the land is not zoned for residential use.

FIGURE 3: TYPICAL PROPERTY RIGHTS IN THE DIFFERENT CATEGORIES AND SEGMENTS OF HOUSING

Property Right	Insecure Housing	Transitional Housing	Secure Housing		
	Unidentified slums	Identified and recognized slums	Notified slum	Unauthorized housing	Formal/legal housing
Use		✓ ¹	✓ ²	✓ (Limited ³)	✓
Develop				✓ (Conditional ³)	✓ (Conditional ³)
Transfer by inheritance		✓ ¹	✓ ²	✓	✓
Transfer by sale				✓ (Only land ⁴)	✓
Basic services			✓	✓ (Conditional ³)	✓
Mortgage					✓

✓ *de facto* ✓ *de jure*

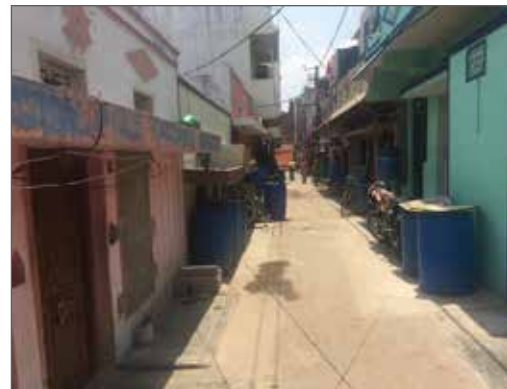
1 Landowner's failure to evict leads to de facto right to use and right to gift

2 De jure right to due process of notice, appeal, compensation or rehabilitation in the event of eviction under the Slum Act leads to de facto right to use and de facto right to gift

3 Limited/Conditional: Property right is subject to land/revenue regulations or city development plans

4 Land can be sold legally but not the development on it

- **Notified Slum:** Owner-occupants have secure tenure because they cannot be evicted without due process. Their *de jure* right to protection from eviction contributes to the *de facto* right to use.⁸ The level of tenure security may be lower in notified slums than in formal and unauthorised housing because owner-occupants do not have land tenure. Notified slum owner-occupants can demand basic services from the state, as per the Slum Act, but timing of provision is uncertain. In practice, notified slum owner-occupants leverage their political capital and appeal to authorities to access and gradually improve basic services.



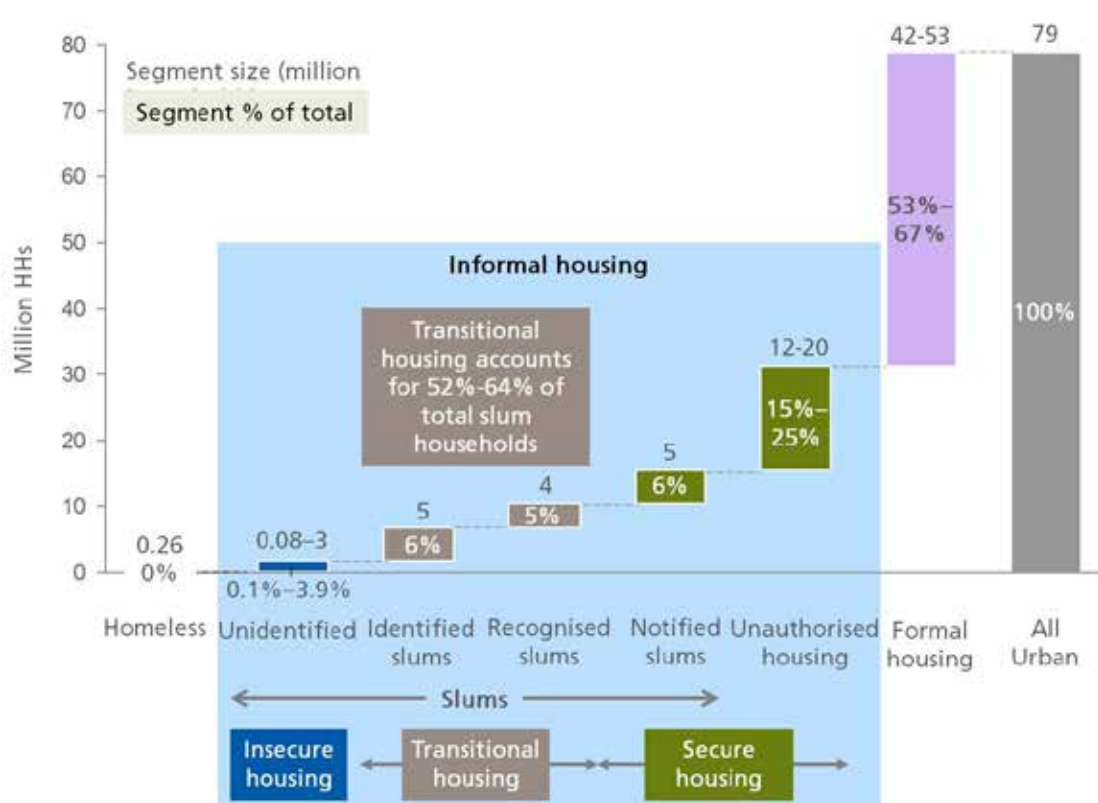
Rasoolpura—a notified slum in Hyderabad

8 FSG expert interview.

SIZING THE DIFFERENT CATEGORIES OF HOUSING

Understanding the sizes of the different housing categories is useful for creating appropriate policies and assessing the impact of potential interventions (see Figure 4). Data for the categories were obtained from a variety of sources (e.g., census, National Sample Survey Office (NSSO), United Nations (UN), state and municipal governments, and urban experts). Where multiple estimates were available the most reliable source (e.g., census for all slums other than unidentified slums) was used. For categories where limited data were available, estimates using multiple sources were developed. For more details on the methodology for estimates, see Appendix 2.

FIGURE 4: SIZES OF THE DIFFERENT HOUSING CATEGORIES IN INDIA



Source: Census 2011, NSSO, FSG estimates; State-level data; Municipal Corporations

MAJORITY OF SLUM OWNER-OCCUPANTS DO NOT HAVE ANY FORMAL PROPERTY RIGHTS

Transitional housing, where owner-occupants do not have any *de jure* property rights, makes up for the largest share (52-64 percent) of slum households. Within transitional housing, identified slums—which are not recognised by the state government or ULB—make up a higher share of

households (56 percent of transitional housing) than recognised slums. Owner-occupants of insecure housing, while a relatively small number, also do not have any *de jure* property rights.

15 – 25 percent of India’s urban population lives in Unauthorized Housing, which in most states is neither defined nor addressed through policy.

FEW NEW SLUMS ARE BEING FORMED

During the slum mapping and survey, while we actively looked for new slums (e.g., less than five years old), we found very few. The finding was corroborated by urban experts and NGOs working in slums. A noted urban planner attributes the significant reduction in new slum formation to “*lack of land to encroach as owners (public or private) are more vigilant in protecting their land.*” As an example, only one percent of slums⁹ in Hyderabad were less than five years old as of 2013.

UNAUTHORISED HOUSING IS A SIZEABLE “MISSING MIDDLE”

From the available data, an estimated 15-25 percent of the urban Indian population lives in unauthorised housing. The sheer size of the problem warrants a comprehensive nationwide mapping of unauthorised housing to understand the different sub-categories. Owner-occupants in unauthorised housing have secure tenure. However, unauthorised housing also requires interventions, since owner-occupants endure sub-optimal living conditions due to limited property rights (e.g., access to services like drainage, road, street lighting) and are unable to get a formal mortgage. Unauthorised housing is not even defined as a category in most states (there are a few exceptions such as Delhi and Punjab). Most states also lack policies on unauthorised housing, in contrast to slums, which are the target of many schemes. Occupants in unauthorised housing also represent an unrealised demand since they have the willingness and capacity to pay for services but their current provision may be inadequate and/or inefficient (e.g., expensive water tankers).

9 Greater Hyderabad Municipal Corporation, *Slum Free City Plan of Action*, May 2013.

5. HOUSEHOLD NEEDS RELATED TO HOUSING AND LIVING CONDITIONS

A survey of 517 households (only owner-occupants and not renters) across Pune, Hyderabad, Cuttack, and Delhi was undertaken to understand the demographics, current conditions, needs, challenges, and aspirations of households in the different categories of informal housing. In this report, data for “secure” housing includes notified slums and unauthorised housing only.

OWNER-OCCUPANTS IN INFORMAL HOUSING ARE A VIBRANT ECONOMIC GROUP

Owner-occupants reported median monthly household incomes of INR¹ 6,000 (USD \$90) in insecure housing, INR 8,000 (USD \$120) in transitional housing and INR 9,000 (USD \$134) in secure housing (see *Figure 5*). Actual incomes of owner-occupants may be higher because self-reported incomes are often understated. Even stated incomes are higher than the World Bank poverty line of INR 5,068 per month² (USD \$76) for a family of five at Purchasing Price Parity (PPP) of \$1.90 per capita per day adjusted for 2015.

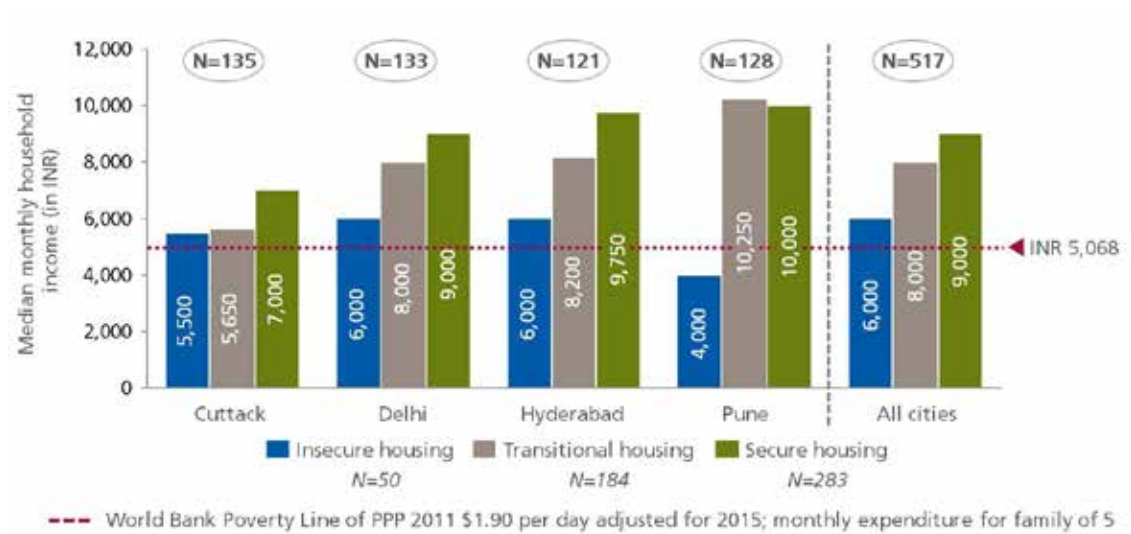
INFORMAL HOUSING OWNER-OCCUPANTS PURCHASE CONSUMER GOODS AND PRIVATE SECTOR SERVICES

According to FSG’s survey, penetration of consumer goods and private sector services is high, with 83 percent and 92 percent of households using televisions and mobile phones, respectively. In comparison, the urban average is 77 percent of households using televisions and 64 percent of households owning mobile phones according to the 2011 census data (see *Figure 6*). Informal housing owner-occupants seem to regularly access and pay for premium television services (in qualitative interviews, most respondents said they primarily use satellite dish or digital set top box).

1 INR: Indian Rupee.

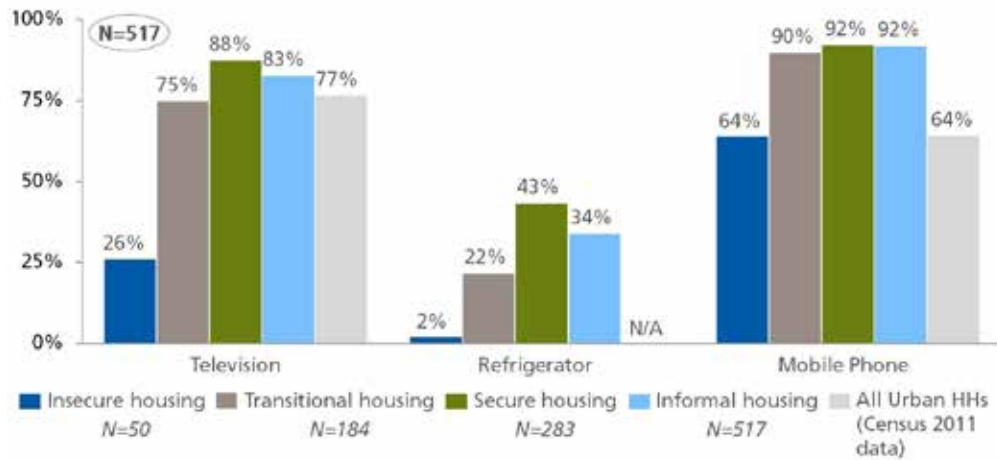
2 World Bank Poverty Line is \$1.90 per capita per day in 2011 prices. Using 2015 PPP conversion rate from international \$ to local currency unit of 17.78 (OECD), the poverty line is INR 33.79 per capita per day. For a family of five (average household size in FSG survey of 517 households) and assuming 30 days per month, the poverty line is INR 5,067.30 per household per month.

FIGURE 5: MEDIAN SELF-REPORTED MONTHLY HOUSEHOLD INCOME



Source: FSG primary interviews of 517 respondents

FIGURE 6: PENETRATION OF CONSUMER GOODS



Source: FSG primary interviews of 517 respondents

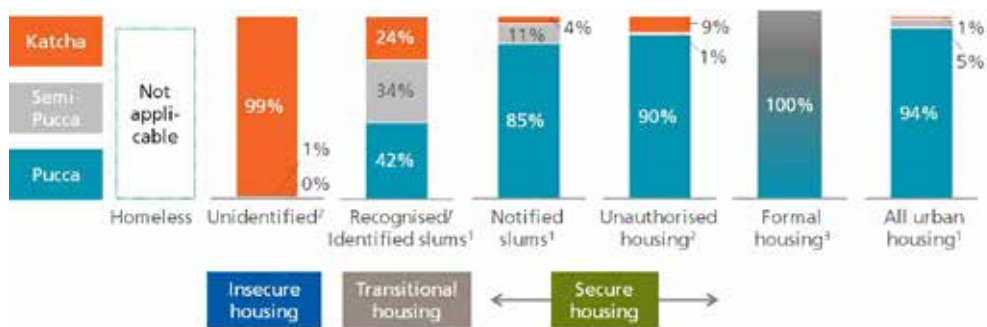
THE MAJORITY OF INFORMAL HOUSING OWNER-OCCUPANTS LIVE IN “PUCCA” STRUCTURES

An estimated 75 percent of owner-occupants in informal housing live in “pucca” structures (see Figure 7). The types of housing structures within each category are based on NSSO data (where

available) and field visits and customer surveys carried out as part of this project (when NSSO data was not available). NSSO definitions for housing structures are:

- **Katcha:** Walls and roofs made of unburnt bricks, bamboo, mud, grass, leaves, reeds, thatch, etc.
- **Semi-pucca:** Either walls or roof made of pucca materials but not both.
- **Pucca:** Walls and roofs made of cement, concrete, oven-burnt bricks, hollow cement/ash bricks, stone, stone blocks, jack boards (cement plastered reeds), iron, zinc or other metal sheets, timber, tiles, slate, corrugated iron, asbestos cement sheet, veneer, plywood, artificial wood of synthetic material, and polyvinyl chloride (PVC) material.

FIGURE 7: TYPE OF STRUCTURES ACROSS HOUSING CATEGORIES



NSSO definitions for housing structures

- Katcha: Walls and roofs made of unburnt bricks, bamboo, mud, grass, leaves, reeds, thatch, etc.
- Semi-Pucca: Either walls or roof made of pucca materials but not both
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Source: Census 2011, NSSO, FSG estimates; State-level data; Municipal Corporations

In the mapping and survey exercise, we observed that housing structures are not uniform, especially in transitional housing. Katcha, semi-pucca, pucca structures and even one storey (Ground + 1) structures exist next to each other. Interestingly, even in transitional housing, where owner-occupants have no *de jure* property rights, more than 40 percent of structures are pucca and another 34 percent are semi-pucca structures (e.g., with concrete walls). This finding was in contrast to the image of slums comprising structures made with rudimentary materials. However, at the same time it should be recognised that the number of households with pucca structures in transitional housing is less than that in secure housing.

PERCEIVED SECURITY OF TENURE IS LOW FOR OWNER-OCCUPANTS IN INSECURE HOUSING AND TRANSITIONAL HOUSING

Payne et al. state that “*perceptions of tenure security are prompting many of the actions that formal title is meant to ensure, such as access to credit and investment [to upgrade housing].*”³ To understand this in the Indian context, we mapped actions (e.g., investing) against the perception of tenure security. In the survey owner-occupants were asked if they had “**any** fear of eviction or demolition” (hereafter referred to as “any” fear of eviction) as an inverse measure of their perceived security of tenure.

SHARE OF OWNER-OCCUPANTS WHO HAVE “ANY” FEAR OF EVICTION⁴ IS HIGH IN INSECURE AND TRANSITIONAL HOUSING, BUT DROPS SIGNIFICANTLY IN SECURE HOUSING

Of the surveyed households, around 78 percent of owner-occupants in insecure housing and 68 percent of owner-occupants in transitional housing reported “any” fear of eviction compared to 28 percent of respondents living in secure housing (see Figure 9). Nearly one-third of the respondents living in insecure housing and transitional housing reported that there had been an increase in this fear. In secure housing, on the other hand, it had decreased. In cities like Delhi, which have seen multiple instances of evictions or demolitions,⁵ the share of owner-occupants who have “any” fear of eviction is relatively higher (e.g., 88 percent in transitional housing compared to 50-60 percent in Pune and Hyderabad; 46 percent in secure housing compared to 10-20 percent in Pune and Hyderabad).

FIGURE 8: A VARIETY OF STRUCTURES OBSERVED IN A SETTLEMENT IN DELHI



3 Payne, G., Durand-Lasserve, A. (p. 23).

4 Owner-occupants were asked “Do you have any fear that you will be evicted or your house demolished by the government?”

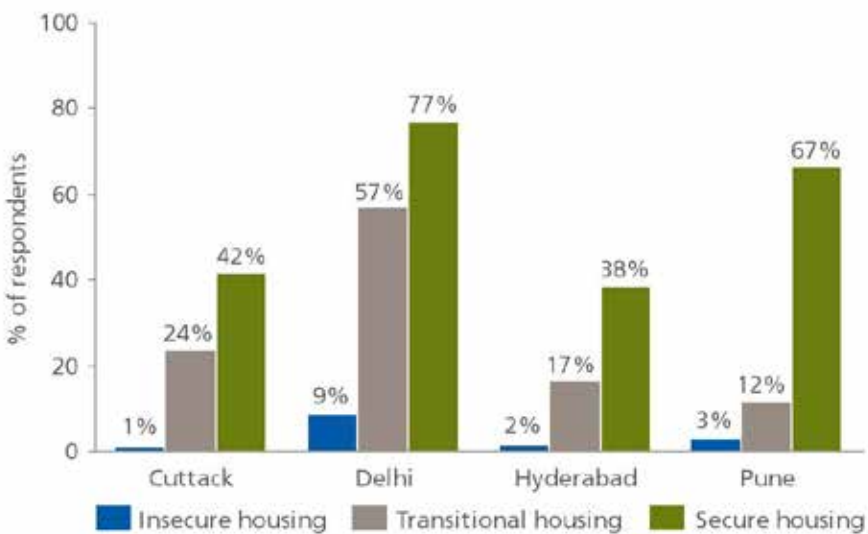
5 Bhan, G. (Un)Settling the City, 2013.

FIGURE 9: HOUSEHOLDS WITH "ANY" FEAR OF EVICTION AND CHANGE IN THIS FEAR OVER THE LAST FIVE YEARS



Source: FSG primary interviews of 517 respondents

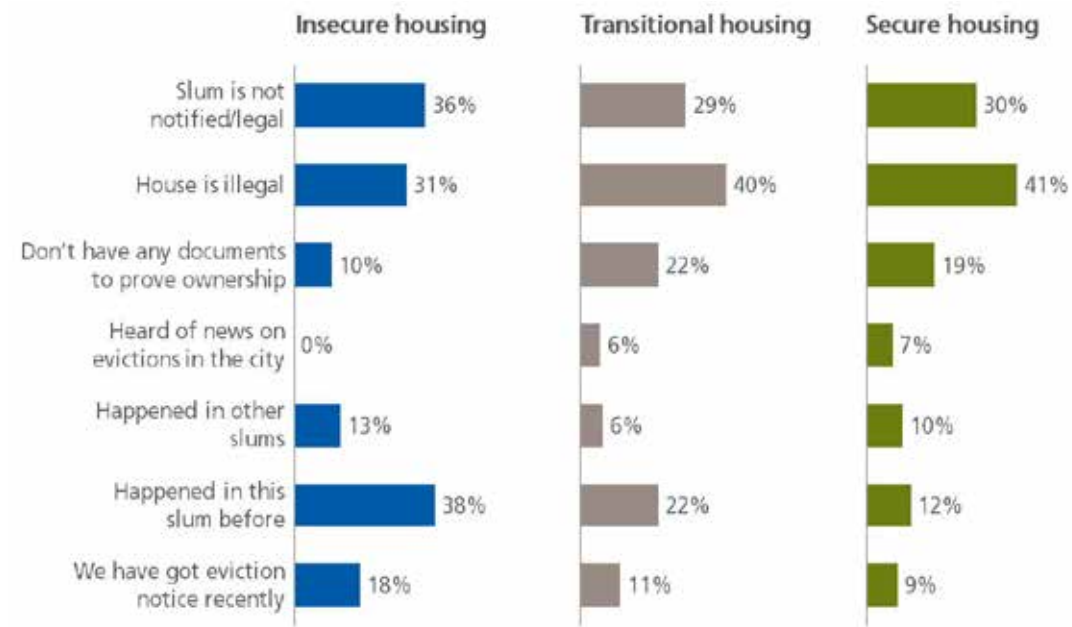
FIGURE 10: OWNER-OCCUPANTS WHO HAVE BEEN EVICTED OR THEIR HOMES DEMOLISHED IN THE PAST BY HOUSING GROUP IN EACH CITY



Source: FSG primary interviews of 517 respondents

Owner-occupants in transitional housing attributed “any” fear of eviction to the illegal construction of the house, lack of notified status for the slum, lack of documents to prove ownership and past evictions (see Figure 11).

FIGURE 11: REASONS FOR “ANY” FEAR OF EVICTION IN THE THREE CATEGORIES



Source: FSG primary interviews of 517 respondents

DESPITE HAVING SOME FEAR OF EVICTION, HOUSEHOLDS PLAN TO CONSTRUCT AND IMPROVE THEIR HOMES IN THE FUTURE

“Technically I don’t own the land so I should be a little scared right? But since I have lived here for more than 20 years I don’t see any problem.” – Owner-occupant in transitional housing in Pune

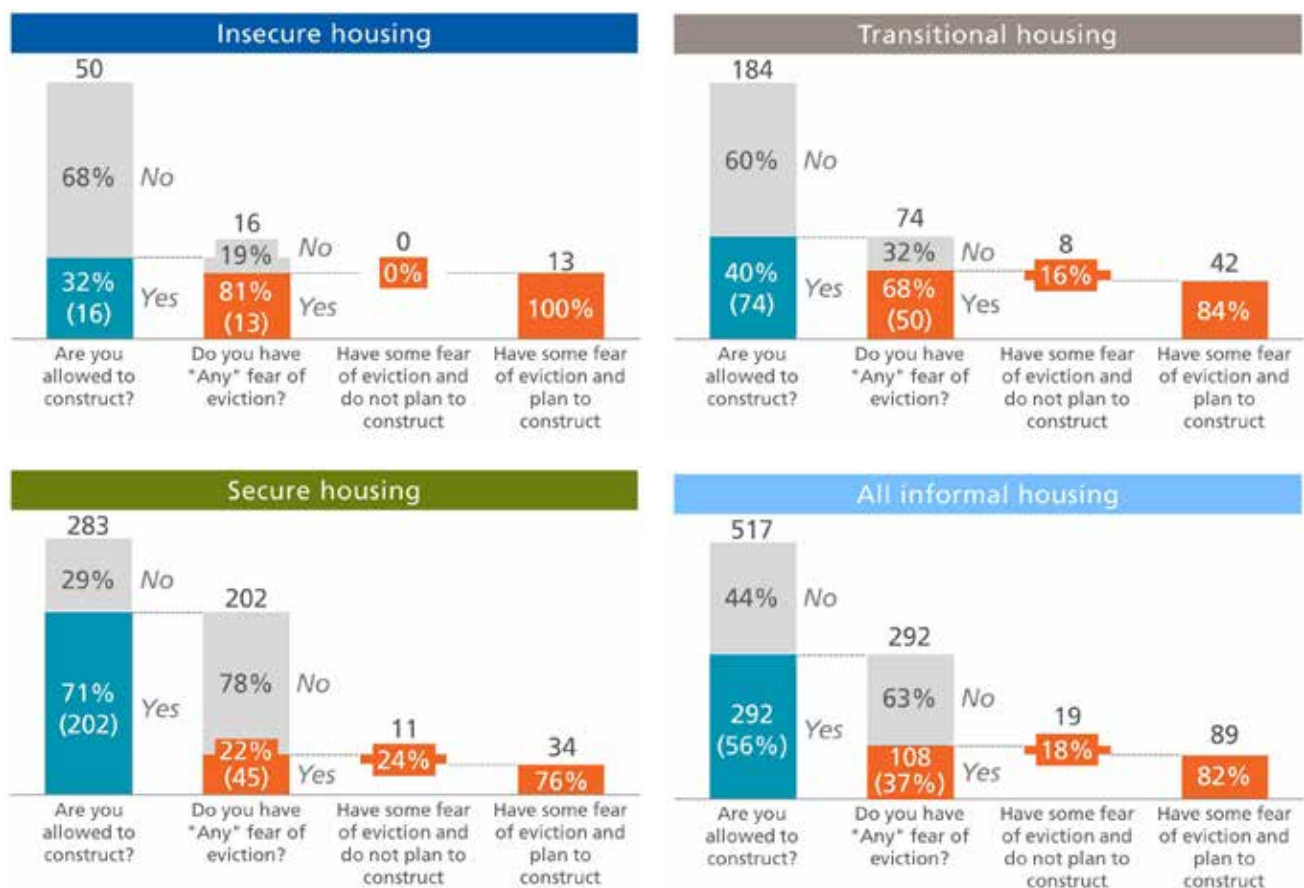
A large proportion (44 percent) of owner-occupants surveyed by FSG believed they were not allowed to construct. Of the 56 percent of households that believed they were allowed to construct, 37 percent had “any” fear of eviction. Of these, 82 percent nevertheless planned to invest in their homes (see Figure 12). In qualitative interviews, owner-occupants were comfortable investing significant amounts (sometimes most of

their savings) in improving their homes and gave the impression that they did not feel eviction was imminent.

OWNER-OCCUPANTS THAT DO NOT HAVE "ANY" FEAR OF EVICTION DERIVE THEIR PERCEPTION OF TENURE SECURITY FROM LEGALLY UNTENABLE SOURCES

The perception of tenure security is derived from many factors, including living in the same house and settlement for many years, infrastructure improvement in the settlement, and a variety of documents. Incidentally, the documents typically cited (e.g., power of attorney from previous owner-occupant, receipts for utility payments and/or ULB taxes) do not really give owner-occupants any property rights, not even *de jure* property rights to use. Only owner-occupants of notified slums or unauthorised housing may have legally tenable documents (e.g., slum ID card or possession certificates in notified slums and land titles in unauthorised housing).

FIGURE 12: RESPONDENTS WITH "ANY" FEAR OF EVICTION AND PLAN TO CONSTRUCT IN THE FUTURE

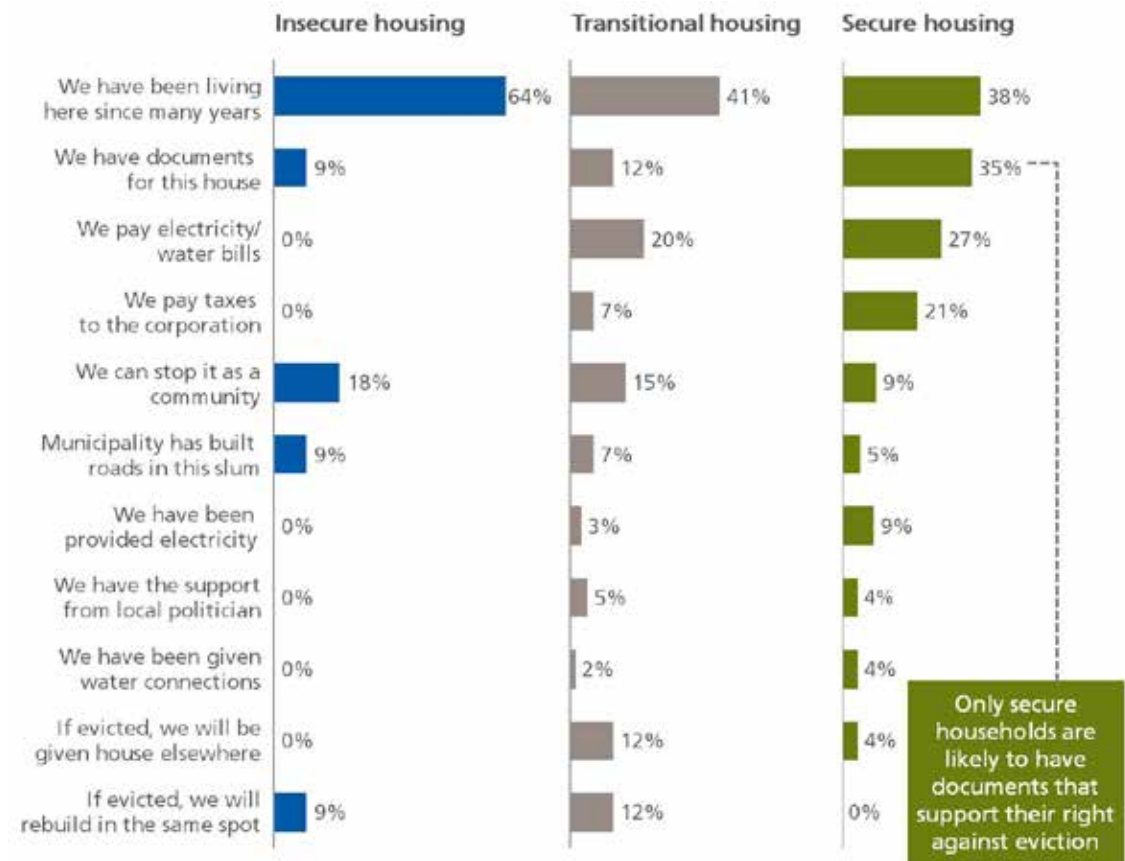


Source: FSG primary interviews of 517 respondents

ACCESS TO SERVICES VARIES ACROSS HOUSING CATEGORIES

In most informal housing except insecure housing, state governments and urban local bodies are providing basic services (e.g., water, toilets). Even schemes do not typically link provision of services to land tenure or property rights (e.g., *Swachh Bharat Abhiyan* for sanitation).⁶

FIGURE 13: REASONS FOR NOT FEARING EVICTION



Source: FSG primary interviews of 517 respondents

Numerous court judgements have supported the provision of basic services, irrespective of land tenure, as a part of the right to shelter, which is included in the expanded scope of the fundamental right to life.

⁶ FSG expert interview.

Consequently, access to basic services is high, as is evident from the 2011 Census data on slums, which cover notified, recognised, and identified slum categories:

- 91 percent of slum households have access to electricity;
- 65 percent of slum households have access to water taps from a treated source;
- 66 percent of slum households have individual toilets and 15 percent have access to public toilets.

FSG’s quantitative survey data on access to electricity, water, and toilets in slums is broadly consistent with the 2011 Census data with one exception (*see Figure 19*). Data on toilets differed significantly in Cuttack and Delhi. This report does not have any comparative data for unauthorised housing since the 2011 Census and the NSSO do not recognise such a housing category.

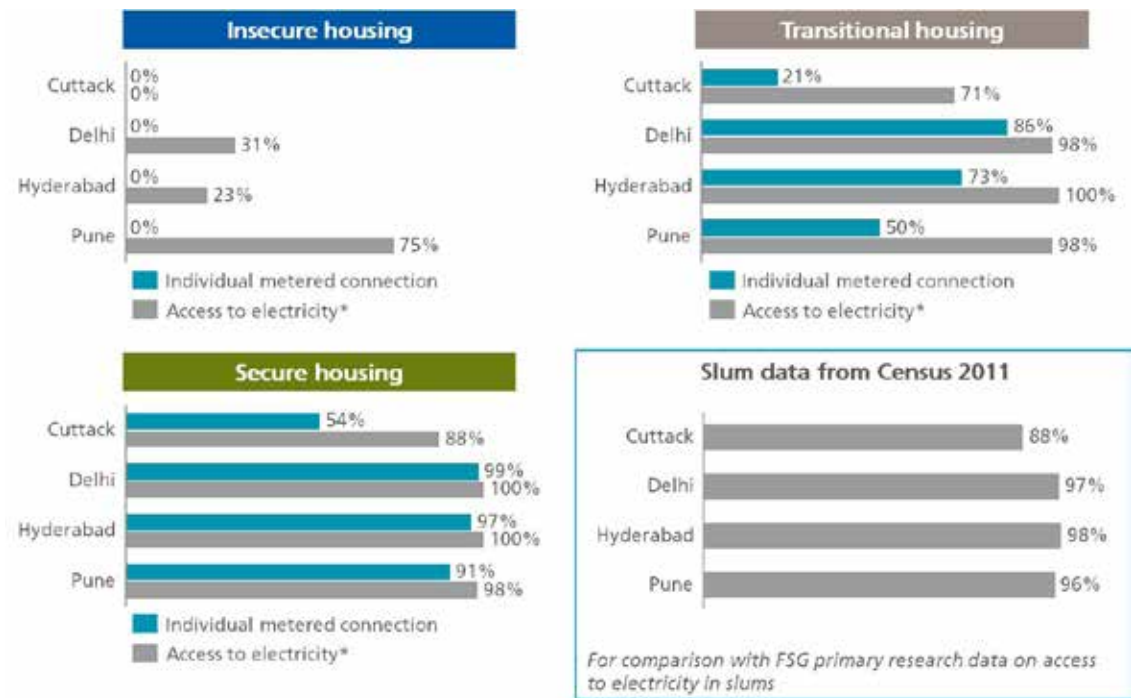
EXCEPT IN INSECURE HOUSING, ACCESS TO ELECTRICITY IS NEAR UNIVERSAL ALTHOUGH THE PRESENCE OF INDIVIDUAL METERED CONNECTIONS IS NOT

Most households, except some in insecure housing, have electricity, often with individual metered connections (*see Figure 15*). In secure housing, more than 90 percent of households have individual metered connections, except in Cuttack. The likelihood of possession of individual metered connections reduces as security of tenure reduces. In Pune, for instance, only 50 percent of households surveyed in transitional housing had an individual metered connection compared to 91 percent of households in secure housing. Some owner-occupants without individual metered connections—e.g., who accessed electricity through a neighbour’s connection—did not appear worried about it (i.e. there were no negative connotations associated with lack of an individual metered connection).

FIGURE 14: ELECTRICITY CONNECTIONS INCLUDING INDIVIDUAL AND “SHARED” CONNECTIONS IN A SLUM IN MUMBAI



FIGURE 15: ACCESS TO ELECTRICITY (WITH OR WITHOUT INDIVIDUAL METERED CONNECTION)



* Access can be through individual metered connection, shared connection with neighbour(s), or illegal connections.

Source: FSG primary interviews of 517 respondents ; Census 2011 Slum Abstract

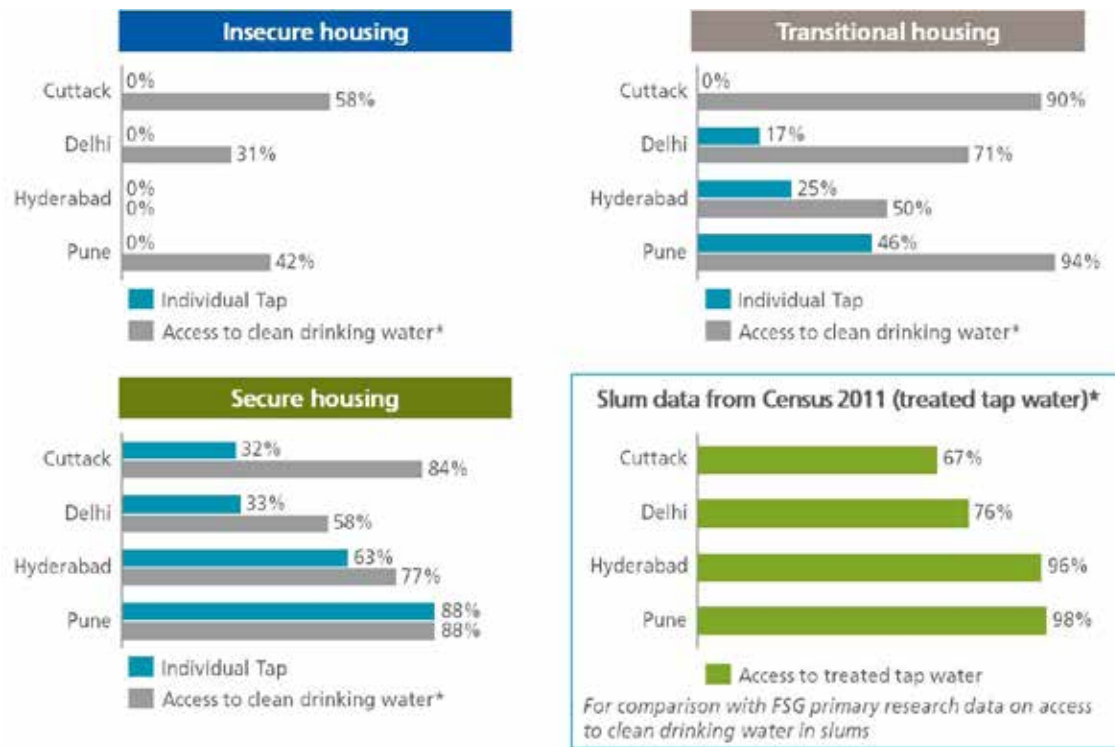
Possession of Individual Taps is Low and Access to Clean Drinking Water is Not Ubiquitous

Tap water through individual, in-house connections (henceforth referred to as *individual taps*) is available only in a minority of households, especially in Cuttack and Delhi (see Figure 17). Fewer than half of the households in transitional housing and insecure housing have individual taps. The prevalence of individual taps in secure housing is much higher in Pune, but is only 33 percent in Delhi and Cuttack. Overall access to clean drinking water is significantly higher than penetration of individual taps due to other sources of clean drinking water (e.g., shared taps, public stand pipes, water tankers).

FIGURE 16: RESIDENTS IN HYDERABAD USING A WATER TANKER DUE TO INADEQUATE SUPPLY FROM TAPS



FIGURE 17: POSSESSION OF INDIVIDUAL TAPS AND ACCESS TO CLEAN DRINKING WATER



* Access can be from a source outside the house (e.g. community stand pipe, tankers, or purchased from diverse sources)
 Source: FSG primary interviews of 517 respondents ; Census 2011 Slum Abstract

Drainage is Common Only in Secure Housing

Only 57 percent of households surveyed by FSG in informal housing had access to drainage (open or closed) compared to 81 percent of slum households, according to the 2011 Census. Households in secure housing had better provision of drainage (72 percent of households) compared to less than half (46 percent) of households in transitional housing.⁷

FIGURE 18: OPEN DRAINAGE ALONGSIDE A WATER PIPE NETWORK IN A NOTIFIED SLUM IN PUNE

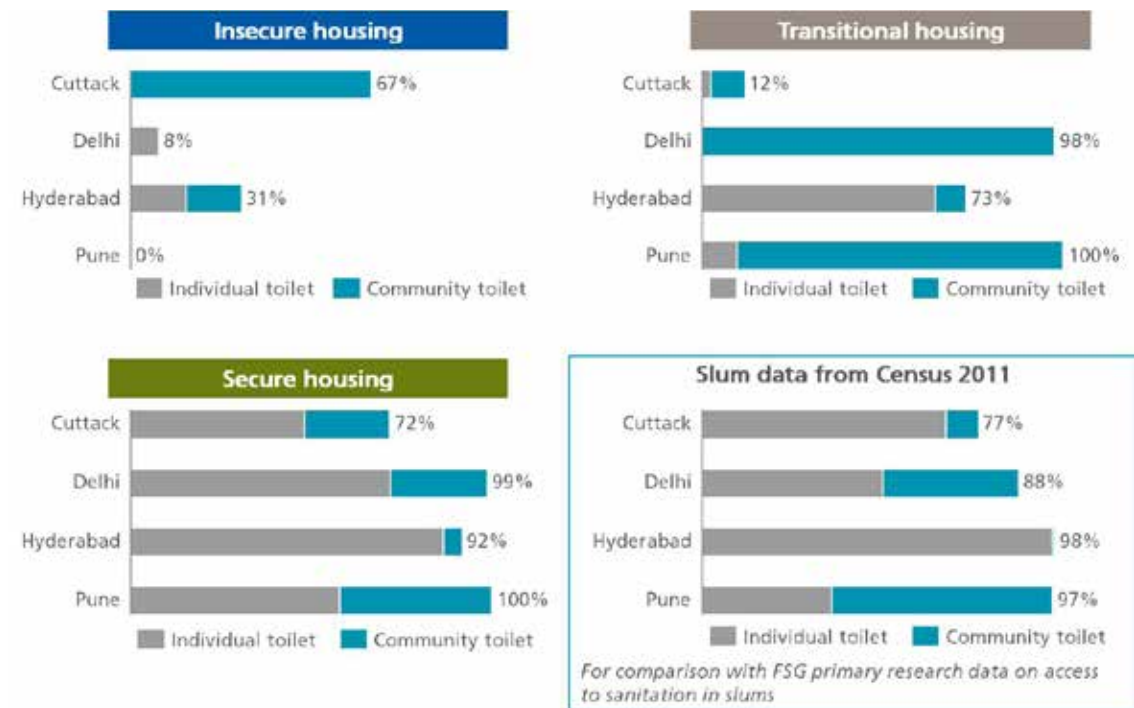


⁷ FSG quantitative interviews of 517 households in informal housing.

Access to Sanitation is Primarily Through Community Toilets, Except in Hyderabad

Overall access to toilets is high, except in Cuttack, but there are differences in the type of access (see Figure 19). Unlike Pune and Delhi, where public toilets play a significant role in providing access to sanitation, Hyderabad has a high share of households with individual toilets. Households in secure housing have a much higher provision of individual toilets. In contrast, households in insecure housing have the worst access to sanitation, including community toilets, with most households defecating in the open.

FIGURE 19: ACCESS TO SANITATION



Source: FSG primary interviews of 517 respondents ; Census 2011 Slum Abstract

ACCESS TO SERVICES IMPROVES FROM INSECURE HOUSING TO SECURE HOUSING

In general, insecure housing has poor provision of services. While electricity provision is nearly ubiquitous in transitional housing and secure housing, when comparing access to in-house water taps and individual toilets, the difference is stark. Transitional housing has lower provision of basic services than secure housing.

The difference in service levels amongst various categories of informal housing can be attributed to the following:

- **Municipal Bodies:** These bodies have limited capacity and resources. They are likely to prioritise notified slums over other slums when providing infrastructure⁸ and basic services (e.g., electricity, water) because provision to notified slums is mandated in the Slum Act. In others slums, apart from tenure status, age of the slum and political patronage are among the factors that influence prioritisation by municipal bodies.
- **Legal Restrictions:** In Delhi, the local water utility (Delhi Jal Board) is not legally allowed to provide individual connections to slums as they are illegal settlements.^{9,10} Governments are often wary of constructing structures like public toilets on private land and may restrict themselves to extending trunk infrastructure to slums on private land.¹¹
- **Availability of Trunk Infrastructure:** In settlements with access to municipal trunk infrastructure, households with the means (savings or loans) and space have invested in building their own toilets with connections to the sewage infrastructure.

STATISTICS MASK THE POOR QUALITY OF SERVICES

Infrastructure such as water supply and public toilets is limited and often severely stretched. Compared to the recommended one toilet seat per 50 people,¹² in reality the ratio can be as high as 2,500 people per toilet seat.¹³ As a result, queues at public toilets are long and waiting times can be as long as two hours in some communities in Mumbai.¹⁴ Municipal water supply is typically available only for a few hours per day.

According to the Ministry of Urban Development (MoUD) *Service Level Benchmarks* of 1,405 cities, only five cities have ~24 hour water availability, and the national average for the remaining 1,400 cities is three hours per day.¹⁵ This is especially problematic for people accessing community taps. People may spend hours waiting for water that is often released at odd hours and the duration may be inadequate for everyone to get enough water. Households may resort to paying for more expensive sources such as water tankers. Hence while access to treated tap water is high, as per the 2011 Census, the availability, quality and quantity of provision may be very poor.

8 FSG expert interviews.

9 Banerjee, A., Pande, R., Vaidya, Y., Walton, M., & Weaver, J. *Delhi's Slum-Dwellers: Deprivation, Preferences and Political Engagement among the Urban Poor*, 2011.

10 Centre for Urban and Regional Excellence (CURE), sourced from Delhi Jal Board website.

11 FSG expert Interviews.

12 National Urban Sanitation Policy.

13 Kalpana Chawla, journalist and author of *Rediscovering Dharavi: Stories from Asia's Largest Slum*; retrieved from Infochange India (<http://infochangeindia.org/urban-india/cityscapes/why-public-toilets-get-clogged.html>).

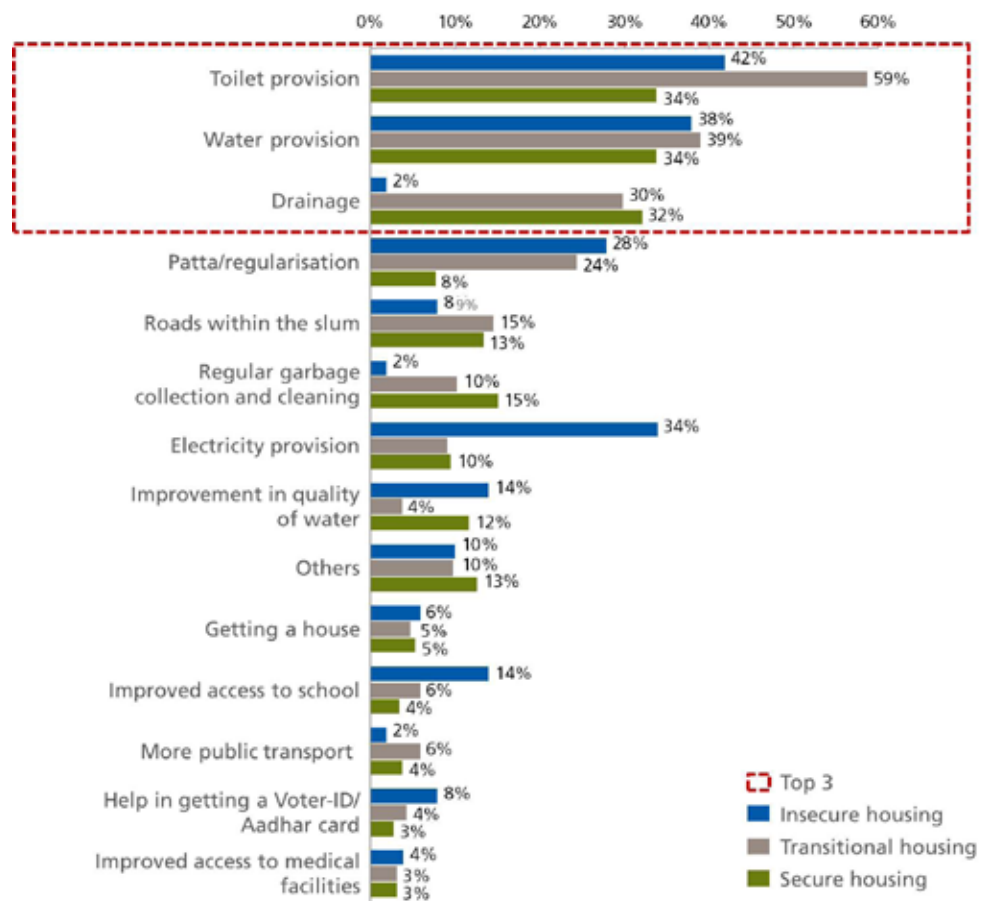
14 Murthy, S. L. *Land security and the challenges of realizing the human right to water and sanitation in the slums of Mumbai, India*, 2012.

15 Ministry of Urban Development, *Service Levels in Urban Water and Sanitation Sector*, 2012.

STATED NEEDS APPEAR TO BE FOCUSED ON DAY-TO-DAY CHALLENGES

Insecure households' top needs reflect the lack of basic services—toilets, water, and electricity. Even transitional households want toilets, water, and drainage (see Figure 20). The need for formal property rights (e.g., patta or regularisation) was mentioned mainly by households living in insecure housing and transitional housing (about 25 percent of them mentioned it), perhaps because having secure tenure increases the likelihood of getting basic services. As an example, a slum in Mumbai is not provided with sanitation facilities by the ULB because, according to an Assistant Municipal Commissioner: "Since it is a transit camp, MCGM [ULB] cannot provide a toilet. If they shift, the investment will be wasted. It is also not a notified slum."¹⁶

FIGURE 20: INFORMAL HOUSING CUSTOMER NEEDS



Source: FSG primary interviews of 517 respondents

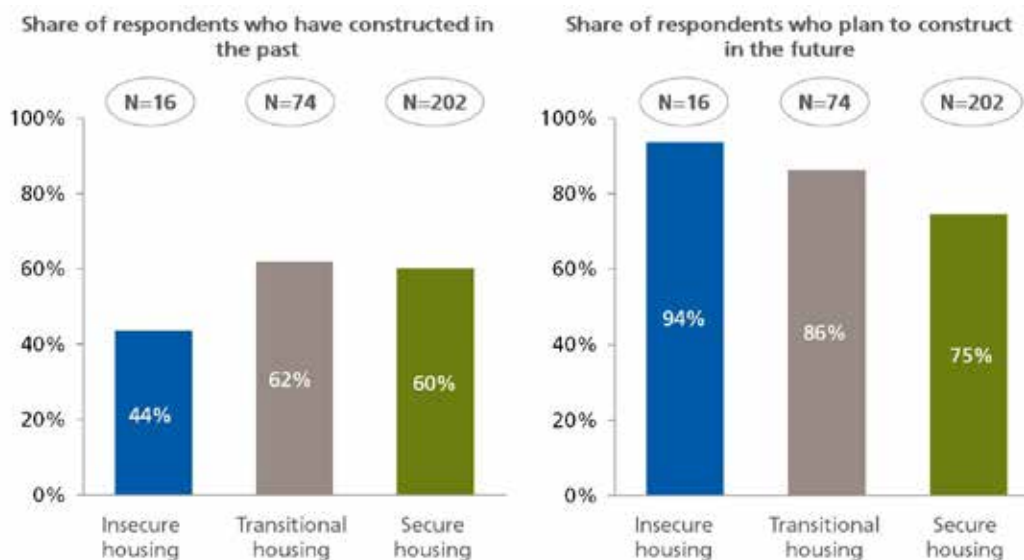
¹⁶ Indian Express, *Transit camp without functional toilet blocks: Right to proper sanitation violated at Mankhurd. Mumbai, 2016.*

OWNER-OCCUPANTS ARE INVESTING IN HOME IMPROVEMENT REGARDLESS OF TENURE SECURITY

60 percent of households in transitional housing and 29 percent in households in secure housing believe they are not “allowed to construct.” Of those who believe that they are “allowed to construct”, the majority of owner-occupants have built in the past and many more plan to build in the future (see Figure 21). This may seem counterintuitive, given that a large proportion of these households (especially those in transitional housing) have mentioned low tenure security (as measured by “any” fear of eviction in Figure 9). This may be because, while the majority of owner-occupants have “any” fear of eviction, they may not perceive “any” fear of eviction as imminent, which allows them to justify the investment. It is also possible that while they do have “any” fear of eviction, they want to improve their living conditions and may not have other options.

In qualitative interviews, owner-occupants said that the decision to build was often made based on years of living at the same place, availability of funds, and consultations with local leaders. Not all risks pay off, however, as some owner-occupants, especially in insecure housing and identified slums, have been evicted in the past and their homes have been demolished.

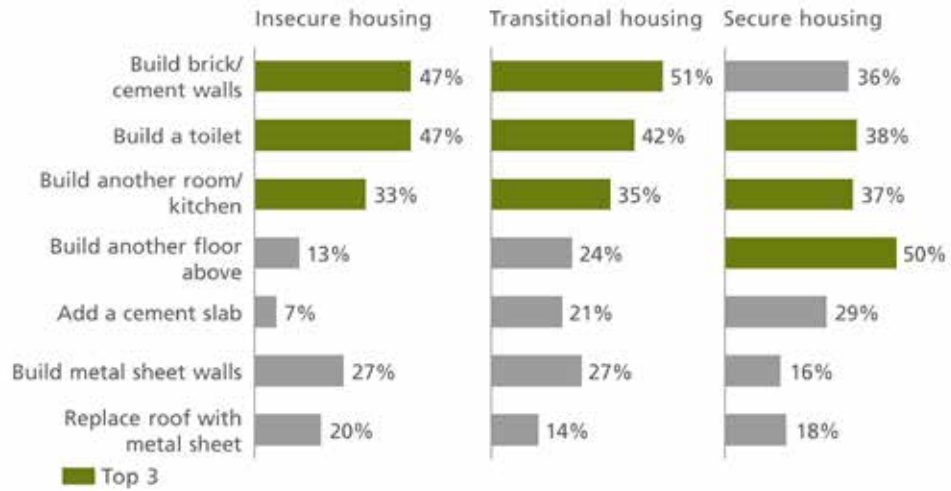
FIGURE 21: PAST AND FUTURE CONSTRUCTION ACTIVITY



Note: N is lower as only respondents who are “allowed to construct” were asked if they plan to construct in the future

Source: FSG primary interviews of 517 respondents

FIGURE 22: TYPE OF CONSTRUCTION ACTIVITIES PLANNED



Source: FSG primary interviews of 517 respondents

There is a perception that, due to low tenure security, owner-occupants undertake incremental construction to lower their losses in case of eviction or demolition. However, owner-occupants interviewed said that incremental construction is done due to budgetary constraints. As seen from Figure 22, the most common upgrades planned are replacing walls/roof with metal sheets or building a toilet costing INR 10,000 (USD \$150) - INR 50,000 (USD \$750), followed by building brick/cement walls costing INR 50,000 (USD \$750) - INR 100,000 (USD \$1,500), and expansion (e.g., adding a room or a floor above) costing INR 100,000 (USD \$1,500)-INR 300,000 (USD \$4,500). As expected, since a larger proportion of secure housing already has pucca housing (often with brick walls and concrete roofs), there is a greater interest in expansion, especially adding a floor above. Expansion is typically carried out to house growing families or generate rental income. Anecdotal data¹⁷ suggest that the rental yield on expansion investment is quite good. Adding a floor costs ~INR 200,000 (USD \$3,000) and it could be rented for INR 3,000 (USD \$45) per month—a yield of 18 percent vs. a 1.5-4 percent rental yield in formal housing¹⁸ in India.

FIGURE 23: ADDITION OF A FLOOR IN A NOTIFIED SLUM IN PUNE



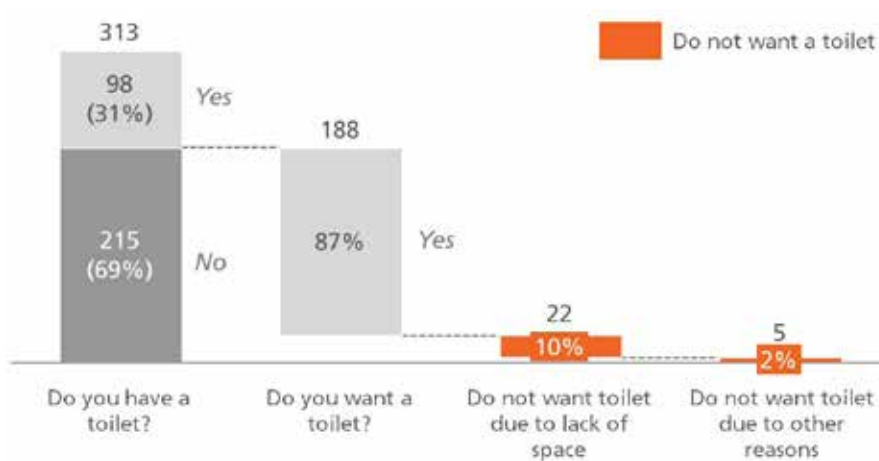
17 FSG primary interviews.

18 Retrieved from <http://www.globalpropertyguide.com/Asia/India/Rental-Yields>.

Upgrading a house from katcha to pucca also has a potential benefit in improving tenure security. The authorities may be less likely to demolish pucca homes due to the political ramifications and the media’s reaction, especially as people have lived in these homes for many years and have made significant investments in making it pucca.

Interestingly, there is a perception among some experts that households in slums do not want individual toilets due to a lack of space. However, FSG survey data show that, among households that do not have a toilet in transitional housing and notified slums, 87 percent want a toilet and only about 10 percent do not want a toilet at home due to a lack of space (see Figure 24).

FIGURE 24: DEMAND FOR TOILETS IN TRANSITIONAL HOUSING AND NOTIFIED SLUMS



Source: FSG primary research of 313 households in slums in transitional housing and secure housing (notified slums)

NEARLY 50 PERCENT OF OWNER-OCCUPANTS WHO FEEL EMPOWERED TO CONSTRUCT WANT LOANS TO CONSTRUCT

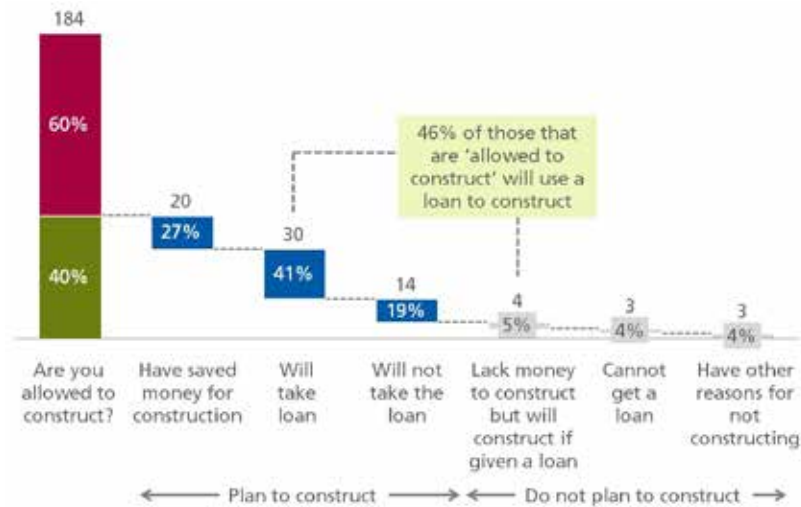
Owner-occupants in informal housing are excluded from formal mortgage finance. Banks and housing finance companies are barred from providing mortgages to houses that lack formal approvals, based on a Delhi High Court judgement.¹⁹ Therefore, home improvements and expansion have to be funded by savings, personal, and/or informal loans.

40 percent of owner-occupants in transitional housing and 71 percent of owner-occupants in secure housing believe they are allowed to construct (see Figure 12). Out of the owner-occupants

¹⁹ The Delhi High Court explicitly barred banks and housing finance institutions from lending to “properties falling under the category unauthorized colonies unless and until they have been regularized and development and other charges paid.” (Kalyan Sanstha Welfare Organisation vs. Union of India and Others); RBI Notification (17 November 2006); NHB Circular (23 November 2006).

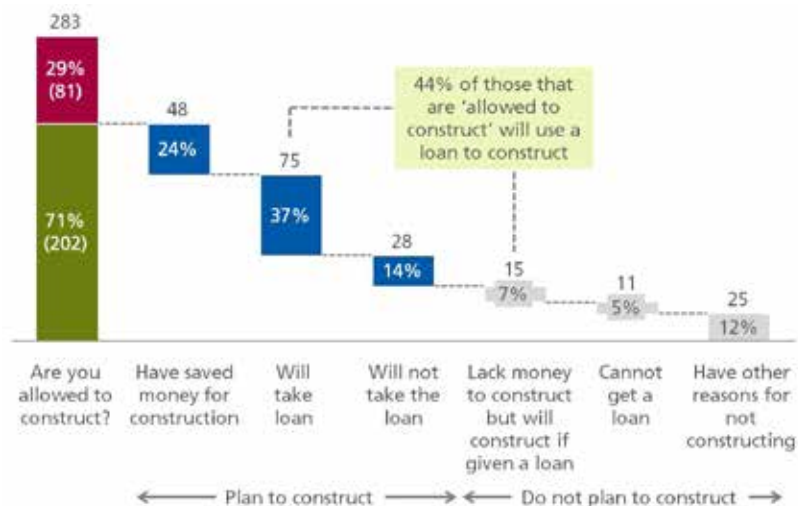
in transitional housing and secure housing who believe they are allowed to construct, 45 percent wanted a loan to undertake construction (46 percent in transitional housing and 44 percent in secure housing). According to one expert,²⁰ “Demand for home improvement loans is likely to be very high. ~30 percent of microfinance (MFI) portfolios are used for housing purposes. People construct incrementally as the size of these loans is small.”

FIGURE 25: DEMAND FOR CONSTRUCTION LOANS IN TRANSITIONAL HOUSING



Source: FSG primary interviews of 184 owner-occupants in transitional housing

FIGURE 26: DEMAND FOR CONSTRUCTION LOANS IN SECURE HOUSING



Source: FSG primary interviews of 283 owner-occupants in secure housing

20 Statement by FSG expert at a conference on low-income housing.

6. GOVERNMENT APPROACHES AND CHALLENGES WITH PROPERTY RIGHTS

CONTEXT

In practice, over the years the Indian government has implicitly improved formal and perceived tenure security. There has been a shift in philosophy from relocating slum dwellers to *in situ* redevelopment and more typically providing basic services. Thus, “strand by strand” owner-occupants are getting *de facto* property rights. However, the provision of services is sporadic, often spread over years, and the process is opaque. In other words, this approach of gradually improving living conditions and *de facto* rights is inefficient and takes too long. Regularisation schemes for unauthorised housing are also sporadic. Granting formal property rights, even if limited (e.g., long-term leasehold rights), would be far more efficient and beneficial to the owner-occupants in terms of improving tenure security.

Granting formal property rights is a more efficient alternative to the current sporadic processes to improve living conditions in informal housing.

PERSPECTIVES OF THE BUREAUCRACY¹

THE BUREAUCRACY IS CONFLICTED BETWEEN THE WELFARE OF THE POOR AND CONDONING ILLEGAL ACTIVITY

The key challenge for the bureaucracy in granting formal property rights is the justification for and potential ramifications of condoning illegal activity (e.g., squatting on land, lack of approvals). According to an Additional Secretary at the central government, “Government is faced with two conflicting objectives—welfare orientation while the other is an approach which is legally correct.”

¹ Based on interviews with 14 high-ranking bureaucrats, experts from multilateral and bilateral agencies, think-tanks, and academia with deep knowledge of the government’s position.

- Condoning illegal activity will set a precedent and encourage more such activity in the future. According to a senior bureaucrat in an urban development authority, “there is a general belief that ‘pattas’ have led to increased squatting.”
- Condoning serious violations of city development plans (e.g., occupying untenable land, forest land).
- Frequent regularisations of unauthorised colonies may undermine the sanctity of the urban planning process.

THE BUREAUCRACY IS MORE OPEN TO GRANTING LIMITED PROPERTY RIGHTS

While at some level the bureaucrats can see the logic of granting property rights such as the right to use, basic services, and perhaps transfer by inheritance from a welfare perspective, they are not in favour of granting property rights such as the right to transfer by sale. According to one senior bureaucrat: “Government cannot even consider giving freehold tenure to slum dwellers.” The concern over granting such property rights is due to the following reasons:

- Fear that beneficiaries will sell their house and move out, thereby rendering void the original purpose of giving beneficiaries better tenure security and improving *in situ* living conditions.
- Losing the option for the government to relocate owner-occupants.

According to a former chief secretary in a state government, “It is possible for the government to give limited land rights, for example a ‘patta’.” Another bureaucrat suggested that “‘occupancy rights’ can be given to inhabitants who contribute towards the *in situ* redevelopment in old slums.”

ESTABLISHING CRITERIA AND PREVENTING FRAUD ARE MAJOR PRACTICAL CHALLENGES IN GRANTING FORMAL PROPERTY RIGHTS

There are two additional challenges that the bureaucracy faces when implementing schemes to grant property rights:

- Designing the criteria to determine the eligibility of households is often not objective. Criteria such as a cut-off date of moving into the settlement, boundary of the settlement, plot area, or built-up area (particularly an issue with multiple storey or ground plus structures) are subject to long negotiations and political interests. According to a senior bureaucrat in a state government, “in addition to a lack of standardised process for determining eligibility criteria, there is also a political process that influences other criteria (e.g., cut-off date) as local politicians have a vested interest in getting an area notified as a slum (or not).”

- The risk of legal action or damage to their reputation, if schemes and policies meant for low income/poor informal housing owner-occupants result in unintended beneficiaries (e.g., slum-lords² or an affluent household).

An official mentioned that their experience of offering pattas had “resulted in massive encroachment, falsification of records to establish eligibility for a patta and subsequent sale of the land for profit by the patta holder, who then made a fresh encroachment.”

REGULARISING UNAUTHORISED HOUSING IS LESS CHALLENGING FOR THE BUREAUCRACY

The owner-occupants of unauthorised housing usually have uncontested ownership or leasehold rights to the land, and typical violations are non-compliance with building codes, failure to convert land use to non-agricultural use, etc. These violations are considered less severe (compared to squatting on land), and hence the bureaucracy is perhaps more open to regularising unauthorised housing, especially small units, often with the imposition of a fine (e.g., development and other charges).³ As a result there have been multiple waves of regularisation for unauthorised housing in different cities (e.g., Building Penalisation Scheme in Hyderabad; regularisation schemes in 1977, 2004 and 2014 in Delhi; and the Gunthewari regularisation scheme in 2003 and 2012 in Maharashtra).

In addition to the stated reasons for not granting property rights, there seems to be an intrinsic aversion to condoning illegal activity (e.g., squatting) by granting formal property rights as it goes against the principles a bureaucrat stands for (e.g., ensuring the rule of law). Therefore bureaucrats seem to be more open to condoning relatively minor violations (e.g., not taking all approvals) in unauthorised housing vs. condoning “major” violations (e.g., “theft” or squatting).

2 Maharashtra Slum Act definition: “‘Slumlord’ means a person, who illegally takes possession of any lands (whether belonging to Government, local authority or any other person) or enters into or creates illegal tenancies or leave and licence agreements or any other agreements in respect of such lands, or who constructs unauthorised structures thereon for sale or hire, or gives such lands to any persons on rental or leave and licence basis for construction, or use and occupation, of unauthorised structures, or who knowingly gives financial aid to any persons for taking illegal possession of such lands, or for construction of unauthorised structure thereon, or who collects or attempts to collect from any occupiers of such lands rent, compensation or other charges by criminal intimidation, or who evicts or attempts to evict any such occupiers by force without resorting to the lawful procedure, or who abets in any manner the doing of any of the above-mentioned things...”

3 Implied by the Delhi High Court judgement that mentioned development and other charges (Kalyan Sanstha Welfare Organisation vs. Union of India and Others).

7. INTERVENTIONS TO IMPROVE LIVING CONDITIONS IN INFORMAL HOUSING

CONTEXT

Informal housing is due to the persistent problem of lack of formal low-income housing in urban India. There are two parts to addressing the current situation:

- 1. Increasing Supply of Low-Income Housing:** A range of levers could be applied here, including government-built subsidised housing, conducive policy for private sector low-income housing (without subsidies). Recommendations mentioned by the authors in the June 2013 report *State of the Low-Income Housing Market*¹ are still applicable.
- 2. Improving Living Conditions of Existing Informal Housing:** As discussed in *Objectives and Approach for the Report*, Page 10, redevelopment and relocation as levers to improve the existing stock of informal housing have been inadequate to meet the demand. Informal housing is likely to exist for the foreseeable future.

As seen in *Government Approaches and Challenges with Property Rights*, Page 43, informal housing owner-occupants are investing in improving their homes regardless of the level of tenure security (see *Figure 21*). Their planned investments (see *Figure 22*) are typically on physical improvements to their houses (e.g., brick/cement walls, an additional floor, building a toilet).

However, they mention basic services such as toilet provision (44 percent of households), water provision (36 percent of households), and drainage (28 percent of households) as the most pressing needs (see *Figure 20*).² They also want roads and garbage collection services, but for these needs and basic services they are dependent on the government. Without formal property rights, informal housing owner-occupants cannot demand access to such infrastructure and utilities from the government, except under welfare schemes. The government provides them with these services based on budget and rollout schedules. Hence, in addition to interventions to help informal housing owner-occupants meet their needs, interested stakeholders should also work on interventions to improve the bundle of formal property rights. The latter is a more fundamental approach to

1 Monitor Deloitte, *State of the Low-Income Housing Market*. 2013, Chapter 7: Way forward, p. 36.

2 Please note: These figures are based on average numbers calculated across segments.

meeting these needs while also giving tenure security and increasing “wealth” (e.g., enabling exchange/sale of property).

INTERVENTIONS TO IMPROVE LIVING CONDITIONS IN INFORMAL HOUSING SETTLEMENTS

Needs, and therefore interventions, vary across the three categories of informal housing. The potential interventions described below either improve basic services or strengthen formal property rights (or both). These high-level interventions are based on actual examples in similar contexts, but their economic viability or feasibility has not been evaluated.

INSECURE HOUSING

50 percent of owner-occupants in insecure housing³ do not have an address or ID proof (e.g., Aadhar card or voter card) for the city (see *section Segmenting Urban Housing in the Continuum of Tenure Security using a Property Rights Lens on Page 20*) and are therefore unable to participate in schemes by the state government or ULB. They are amongst the most marginalised people in India and are unlikely to get access to services, as they are a relatively small group and lack even a “voice in the city” (i.e. they are unable to vote). NGOs could help owner-occupants to get a government ID (e.g., Aadhar card, voter ID card). It would not cost a lot, but would fundamentally enhance people’s lives.

TRANSITIONAL HOUSING

Owner-occupants in identified and recognised slums are seeking to either gain access to basic services or improve the quality of existing basic services (e.g., more water per capita, longer hours of water supply, more community toilets per capita).

Interventions to Improve Basic Services

- **Improved Provision of Basic Services:** Government is providing basic services to owner-occupants and should accelerate improvement in the availability, quality, and quantity of service.
- **Decentralised Sewage Infrastructure:** 87 percent of informal households without toilets want toilets (see *Access to Services Improves from Insecure Housing to Secure Housing on Page 36*), but it may be expensive and practically difficult⁴ to get trunk infrastructure into transitional housing settlements. One option is to have decentralised sewage systems, such as small-bore

³ FSG primary interviews of 50 owner-occupants in unidentified housing.

⁴ Space or topology; getting permission from a private landowner to extend trunk infrastructure (e.g. underground pipes).

sewerage systems,⁵ which are comprised of inceptor tanks for removing solids and small-bore sewers that carry wastewater. The small-bore sewers can discharge wastewater into the municipal trunk sewerage network, if available. Alternatively, wastewater can be treated locally in a decentralised treatment plant located within or at the periphery of the settlement. However, the system requires periodic de-sludging and disposal of solids from inceptor tanks, which requires management at the community level. This can be fulfilled by an operator on contract. There are examples of small-bore sewerage systems catering for marginalised communities in Pakistan, Peru, and South Africa.⁶

- **Clean Drinking Water Plants:** Access to clean drinking water is not ubiquitous and varies widely across informal housing segments (from 32 percent in insecure housing to 76 percent in secure housing)⁷ and across cities (see *Figure 17 on Page 35*). To improve access to clean drinking water, private sector and/or nonprofits could set up decentralised water filtration plants in informal settlements.⁸ The plants typically use reverse osmosis to process groundwater or water from municipal taps. In India, social enterprises and NGOs like APMAS, Eureka Forbes, Sarvajal, WaterHealth India, and Waterlife have installed decentralised water plants in urban informal housing settlements.
- **Last-Mile Water Pipe Network:** Given the limited and erratic supply of water in many urban areas, it is much easier for households with in-house taps to store water and cope with this than depend on community stand pipes, which entail waiting in line for limited water and often at odd hours. However, only 23 percent of households in transitional housing and 52 percent⁹ in secure housing have individual taps (see *Figure 17, Page 35*). A water pipe network could be built to extend the community water tap connection or trunk infrastructure at the periphery of the settlement to in-house taps. One example of such a community solution is a recognised slum (transitional housing) in Pune where owner-occupants hired local plumbers



Decentralized water plant by Sarvajal

5 Government of India and World Bank WSP. *A Guide to Decision making: Technology Options for Urban Sanitation in India*, 2008.

6 Asian Development Bank, *From Toilet to Rivers*, 2014.

7 Please note: These figures are based on average numbers calculated for each segment across cities.

8 FSG interviews with clean drinking water service providers: "Setting up a plant in urban areas without some formal recognition entails [the] risk of attracting rent seekers, and so providers tend to set up kiosks where they have some permission. Getting permission for setting up plants in identified slums may be a challenge as the slums are not on any government records."

9 Please note: These figures are based on average numbers calculated for each segment across cities.

to build a pipe network.¹⁰ In Manila, Philippines,¹¹ two firms with concessions for different areas extended water pipes to the boundaries or entry points of narrow lanes in informal housing settlements. In the absence of formal land titles, which was typically required for formal water provision, the two firms received assurances from the local government that the informal communities would not be resettled for a minimum of five years.¹² The community then took responsibility for connecting its members (using hose-pipes or small-bore underground pipes) and paid a consolidated bill as per a bulk water meter reading for the lane or settlement.

“We leave a storage drum below the tap always so that whenever water is released it gets collected. Earlier we used to wait for hours at the public [community] tap or run to line up whenever water was released. Even then getting water was not a guarantee” – owner-occupant in transitional housing in Hyderabad

- **Larger-Size Unsecured Credit (Non-Mortgage) for House Improvements:** Of the 40 percent of households in transitional housing that believe they are “allowed to construct,” 62 percent have constructed in the past and 86 percent plan to construct in the future (see *Figure 21*). Owner-occupants typically fund construction by drawing on personal savings and formal (e.g., MFIs) and informal credit. Extending larger loans, typically greater than INR 100,000 (USD \$1,500), with longer payback periods (three to five years)¹³ will help owner-occupants to improve their housing (or at least do it earlier) and/or generate rental income. In the absence of clear titles, formal financial institutions can look for other factors to help them manage credit risk. An important one is “permanence”¹⁴ (i.e. the owner-occupant will be there for the duration of the loan). MFIs with personal loan products in slums use factors like employment history, length of residence in the current location, etc. to assess permanence. The challenge for MFIs in providing larger amounts for longer tenure is that regulations do not permit such large loans¹⁵ and longer repayment tenure results in asset-liability mismatch. For this reason, there appears to be an opportunity to give such loans through other lending organisations (e.g., Non-Banking Financial Companies or banks) or increasing the limits of loans MFIs can provide. Classifying these loans under the Reserve Bank of India’s Priority Sector Lending guidelines could improve access to and reduce the cost of credit to lenders in this space. The loans could

10 FSG mapping of ~80 informal housing settlements.

11 WaterAid, *Water utilities that work for poor people*, 2009; Comeault, J. Manila Water Company, *Improving Water and Wastewater Services for the Urban Poor*, 2007.

12 Cheng, D. *The Politics of Pipes: The Persistence of Small Water Networks in Post-Privatization Manila*, 2013.

13 As the loans are larger, the longer payback periods will make the monthly payments more affordable for customers.

14 Base criteria that all formal institutions (including MFIs) have for any kind of loans in slums is the permanence of the slum itself. They do not lend in slums that may be removed. They use factors like the type of slum (e.g. notified), age of the slum, political patronage enjoyed by owner-occupants and plans for infrastructure project in the area to assess the permanence of the slum.

15 NBFC-MFIs registered with the Reserve Bank of India (RBI) are not permitted to lend beyond INR 60,000 (USD \$900) in the first cycle and INR 100,000 (USD \$1,500) in subsequent cycles, while total debt cannot exceed INR 100,000 (USD \$1,500).

potentially be bundled with an insurance against eviction/demolition and insurance against collapse of the structure.¹⁶

Interventions to Improve the Bundle of Property Rights

- **GIS (Geographic Information System) Mapping and Self-Enumeration:** GIS mapping could help generate an address for individuals and establish boundaries of a house or settlement. Identity and residence verification are basic requirements to qualify for beneficiary lists, hence self-enumeration may help individuals to qualify for beneficiary lists. GIS mapping and self-enumeration may also be useable by financial services providers to comply with “Know Your Customer” (KYC) norms and make the service commercially viable. Among the numerous cases of GIS mapping and self-enumeration are:
 - Map Kibera project in Nairobi, Kenya;
 - Shelter Associates in Pune, India, for installing individual toilets in slums; and
 - An alliance of SPARC, NSDF, Mahila Milan and URDC17 to help slum dwellers in Cuttack qualify for a government housing scheme.
- **Digital Document Locker:** Occupants in informal housing typically build a portfolio of documents over time. These records are susceptible to damage in fire, rain, or flooding, which is not a rare occurrence and increases the vulnerability of a population with limited tenure security. A service to digitise documents and notarise and store records that are officially accepted by government as the equivalent of original documents has potential demand from informal housing occupants. The central government has launched a beta version of “DigiLocker,”¹⁸ a secure storage for digitised documents issued by government agencies or participating organisations.
- **Grant Property Right Bundles:** State governments could consider granting various bundles of property rights that are politically feasible and cater to diverse contexts of informal housing settlements. The formal property right to use and right to basic services, which bureaucrats are more comfortable with, could form the basic bundle. Additional rights (e.g., right to exchange, right to mortgage) could be added to the bundle, depending on local needs and feasibility. The rights could also be granted for a limited period (e.g., 5 or 10 years) as this may make it easier for the government to implement.¹⁹

¹⁶ FSG expert interviews. While there is a need for such a product, it is not clear who would provide it and if the pricing would be appropriate for the target customer segment.

¹⁷ SPARC—Society for the Promotion of Area Resource Centers; NSDF—National Slum Dwellers Federation; URDC—Urban and Development Resource Centre.

¹⁸ Retrieved from <https://india.gov.in/spotlight/digilocker-online-document-storage-facility>.

¹⁹ According to FSG experts, the bureaucracy may be hesitant to make a permanent change.

FIGURE 27: GIS MAPPING BY SHELTER ASSOCIATES FOR ITS SANITATION PROGRAM²⁰



- **Notification of Slums:** Notify slums where owner-occupants have been living for many years. The slums could be located on private land (after considering objections raised by any party including a private landowner as per the process in the relevant State Slum Act) or public land where eviction is difficult (e.g., lack of alternate site to relocate owner-occupants, significant political ramifications). While notification seems difficult based on the views of bureaucrats, it significantly enhances the benefits for an owner-occupant, and hence should be done when possible. Considering the formation of new slums has slowed down considerably over the last five years, experts believe that this may make it more acceptable to government to notify long-consolidated slums.

SECURE HOUSING

Owner-occupants in secure housing typically have access to basic services but need improvements in the quality of services (e.g., more quantity, greater continuity) and more formal property rights. In notified slums, owner-occupants will benefit from a *de jure* right to use (as opposed to *de jure* right against forced eviction) while in unauth-orised housing owner-occupants need the right to sell and the right to mortgage the property to leverage their asset.

²⁰ Shelter Associates Spatial Slum Information. Retrieved from Shelter Associates website http://slum.shelter-associates.org/sites/default/files/ra_factsheet_Lohagaon_Viman_Nagar_Yamuna_Nagar_Pune_S.N.199.compressed.pdf.

Interventions to Improve Basic Services

- Improved provision of basic services, decentralised sewage infrastructure, clean drinking water plants described above are applicable for secure housing too.

Interventions to Improve the Bundle of Property Rights

- **Regularise Unauthorised Housing:** Legalise ‘pardonable’ violations in unauthorised housing structures (e.g., lack of some building approvals, illegal sub-division of land into plots) by imposing a penalty. Regularisation will enable owner-occupants to formally transfer the property or get a mortgage.
- **Credit Guarantee Fund:** The government typically incentivises formal financial institutions for extending credit to financially excluded families by providing subsidies. To help catalyse a sustainable market-based solution for credit to informal housing customers, the government could set up a credit guarantee fund (to address loan defaults), as it has done in low-income housing, instead of subsidies. A credit guarantee fund is also likely to reduce the cost of credit for the borrower since the risk to the lender is reduced.
- **Enable Formal Mortgages to Secure Housing:** Currently, owner-occupants of secure housing typically get INR 50,000 (USD \$750) to INR 100,000 (USD \$1,500) in microfinance loans. While they have the right to use, they are not able to get mortgages as the Reserve Bank of India (RBI)/National Housing Bank (NHB) does not allow mortgages for housing that does not have all the requisite approvals.²¹ Allowing secure housing that has some *de jure* rights to get formal mortgages would enable lower costs, larger amounts and longer duration credit to these low-income families. Recently in a special refinance facility,²² NHB has allowed “or by alternate security” in lieu of mortgageable title as collateral for mortgages. Demand for construction loans of INR 100,000 (USD \$1,500) to INR 300,000 (USD \$4,500) is sizeable (see *Figures 25 and 26, Page 42*). The estimated size of housing finance opportunity to serve 4.9 million households in notified slums and unauthorised housing is INR 353 billion (USD \$5.2 billion).²³ As is the case for transitional housing, classifying these loans under the Reserve Bank of India’s Priority Sector Lending guidelines could improve access to and reduce the cost of credit to lenders in this space. The mortgage could also potentially be combined with insurance against eviction/demolition and insurance against collapse.²⁴

21 RBI Notification (17 November 2006); NHB Circular (23 November 2006) in accordance with a Delhi Court order.

22 NHB (2012) Special Urban Housing Refinance Scheme for Low Income Households.

23 See Appendix 4 for estimation methodology.

24 FSG expert interviews. While there is a need for such a product, it is not clear who would provide it and if the pricing would be appropriate for the target customer segment.

SUMMARY OF INTERVENTIONS AND APPLICABILITY TO THE DIFFERENT CATEGORIES IN INFORMAL HOUSING

Interventions	Provider		Insecure housing	Transitional housing		Secure housing	
	Private Sector/ NGO	Govt.	Unidentified slums	Identified slums	Recognised slums	Notified slums	Unauthorised housing
Apply for ID linked to the city	√		H	M			
Decentralise sewage infrastructure	√			H	H	H	L
Clean drinking water plants	√			H	H	H	M
Last-mile water pipe network	√			H	H	H	
Larger-size unsecured credit (non-mortgage)	√			H	H	H	M
GIS mapping and self-enumeration	√		H	H	H	H	
Digital document locker	√	√		H	H	H	H
Grant property right bundles		√		H	H	H	H
Notification of slums		√			H		
Regularise unauthorised housing		√					H
Credit guarantee fund		√				H	L
Enable formal mortgage in secure housing		√				H	H

Note:

- The interventions are described under the segment where they are most applicable; some owner-occupants in other segments may also want/use them. **H = High; M = Medium; L = Low.**
- For interventions where the private sector (including NGOs) has/may have the capacity to deliver, this is indicated. Some of these interventions (e.g., decentralised sewage infrastructure, clean drinking water plants) could also be provided by the government.

APPENDICES

APPENDIX 1: LIST OF INFORMAL HOUSING SETTLEMENTS MAPPED OR SURVEYED

CITIES SHORTLISTED FOR SURVEY AND RATIONALE FOR SELECTION

Delhi was chosen because it is a large urban agglomeration (representative of cities with population greater than 10 million) with a history of policy interventions for tackling the growth of slums. In Delhi, the slum population accounts for nearly 20 percent of the urban population and an estimated 17 percent of urban households live in unauthorised housing. Delhi continues to see migration from neighbouring states and most of the migrants end up staying in informal housing.

Pune and Hyderabad were chosen as the relatively new and upcoming large cities (representative of Tier 1 cities) experiencing increasing urbanisation and consequent slum population growth. Taken together, the two cities account for nearly 9 percent of urban population and 12 percent of slum population of cities with a total population of over one million. Also a significant share of urban households, estimated at about 15 percent and 17 percent for Pune and Hyderabad, respectively, live in unauthorised housing.

Cuttack was chosen as being representative of a typical Tier 2 town. Cuttack has seen decadal slum population growth of nearly 5.72 percent as against urban population growth of 1.3 percent. Smaller cities (i.e. with population between 500,000 and one million) account for nearly 8.1 percent of India's urban population and 8.4 percent of slum population.

SLUMS AND UNAUTHORISED HOUSING SETTLEMENTS MAPPED

An on-the-ground scouting exercise was undertaken in the four cities to identify locations for the quantitative survey. Realising that a wide range of informal housing categories existed, and to ensure adequate representation of the categories, ~60 days were invested in mapping over 80 slums and unauthorised housing settlements across the four cities. Local NGOs working in slums and low-income neighbourhoods as well as urban planning organisations were leveraged to find

locations and confirm that the different types of informal housing categories were mapped. For the survey, 40 sites were chosen as representative samples of informal housing categories in the four cities. The sites were chosen based on the following criteria:

- Housing category (e.g., unauthorised housing, notified slum, recognised/identified slum and unidentified slum).
- Type of structure in the slums and unauthorised housing (e.g., katcha, semi-pucca and pucca).
- Location of the settlement (e.g., periphery or centre of the city).
- Ownership of the land (e.g., public, private, owned by occupants).
- Number of households in the settlement.

The tables that follow list the settlements mapped (according to city). Legend for the tables:

STATUS	N = Notified slum; NN = Recognised/Identified slum; NP = Notified slums with patta holders; UH = Unauthorised housing
LOCATION	C = City; P = Periphery of the city
ENCROACHED	Yes = Encroached; O = Owned Land; Mix = Mix of encroached and owned land
STRUCTURE	K = Katcha; SP = Semi-pucca; P = Pucca; G+ = Structures with 1 or more storeys Percentages indicate share of HHs by structure based on observations and interviews with residents
ELECTRICITY, WATER, TOILET	IND = Independent; CMN = Community; OTH = Shared with neighbours or procured through other means

DELHI

NAME	STATUS	HOUSEHOLDS	LOCATION	LANDOWNER	ENCROACHED	STRUCTURE				ELEC-TRICITY		WATER		TOILET		DRAINAGE
						K	SP	P	G+	IND	OTH	IND	CMN	IND	CMN	
Dev Nagar Khandala	NN	700	C	Public	Yes	100%				N	Y	N	Y	N	Y	Y
Pontum Pool	NN	200	C	Public	Yes	100%				N	Y	N	Y	N	N	N
Chitra Vihar JJ	N	400	C	Public	Yes				100%	Y	Y	N	Y	N	Y	Y
Bhagat Singh Jhuggi	NN	420	C	Public	Yes	100%				N	Y	N	Y	N	Y	N
Raghubir Nagar JJ	NN/NP	2000	C	Public	Mix			10%	90%	Y	Y	N	Y	Y	Y	Y
Jahangirpuri JJ	NN/NP	1000	C	Public	Mix			10%	90%	Y	Y	Y	Y	Y	Y	Y
Sundernagri JJ	NN/NP	3000	C	Public	Mix			10%	90%	Y	Y	Y	Y	Y	Y	Y
Sarhad Puri JJ	N	200	C	Public	Yes			30%	70%	Y	Y	N	Y	N	Y	Y
Camp Market	NP	500	C	Private	Yes			10%	90%	Y	N	Y	N	Y	N	Y
Nehru/JP Camp	NN	800	C	Public	Yes	35%	30%	30%	5%	Y	Y	N	Y	N	Y	Y
KP Mess	NN	200	C	Public	Yes			100%		Y	N	N	Y	N	Y	Y
Amrabhi Village	U	40	P	Private	Yes	100%				N	Y	N	Y	N	N	N
B Block	UH	1500	C	Private	O			5%	95%	Y	N	N	Y	Y	Y	N
Khanpur JJ	NP	1200	C	Public	O				100%	Y	N	Y	N	Y	N	Y
Vikas Vihar	UH	500	P	Private	O				100%	Y	N	Y	N	Y	N	Y
Mange Ram Park	UH	100	P	Private	O				100%	Y	N	Y	N	Y	N	Y
Budh Vihar	UH	500	P	Private	O				100%	Y	N	Y	N	Y	N	Y
Paul Colony	UH	1000	P	Private	O				100%	Y	N	Y	N	Y	N	Y
Ghyaspur Colony	U	50	P	Public	Yes	100%				Y	N	Y	N	Y	N	Y
Jasola Gaon	U	40	P	Public	Yes	100%				Y	N	Y	N	Y	N	Y
Near Dhaula Kuan	U	50	C	Public	Yes	100%				Y	N	Y	N	Y	N	Y

STATUS	N = Notified slum; NN = Recognised/Identified slum; NP = Notified slums with patta holders; UH = Unauthorised housing
LOCATION	C = City; P = Periphery of the city
ENCROACHED	Yes = Encroached; O = Owned Land; Mix = Mix of encroached and owned land
STRUCTURE	K = Katcha; SP = Semi-pucca; P = Pucca; G+ = Structures with 1 or more storeys Percentages indicate share of HHs by structure based on observations and interviews with residents
ELECTRICITY, WATER, TOILET	IND = Independent; CMN = Community; OTH = Shared with neighbours or procured through other means

HYDERABAD

NAME	STATUS	HOUSEHOLDS	LOCATION	LANDOWNER	ENCROACHED	STRUCTURE				ELEC-TRICITY	WATER		TOILET		DRAINAGE
						K	SP	P	G+	IND	IND	CMN	IND	CMN	
Addagutta	NP	1000+	P	Public	Yes		40%	40%	20%	Y	Y	Y	Y	Y	Y
Aashif Nagar	NN	300	C	Pvt	Yes	100%				Y	N	Y	N	N	N
Jaipuri Colony	NP	750	P	Public	Yes		5%	80%	15%	Y	Y	Y	Y	Y	Y
Patalagura	NN	1100	P	Public	Yes		90%	10%		Y	Y	Y	N	N	N
Rasoolpura (Slum 1)	NP	430	C	Public	Yes		40%	50%	10%	Y	N	Y	Y	Y	Y
Rasoolpura (Slum 2)	NN	N.A.	C	Private	Yes		40%	40%	20%	Y	N	Y	Y	Y	Y
Musa Nagar	NP	378	P	Public	Yes		30%	40%	30%	Y	Y	Y	Y	Y	Y
Bojaguta Shivaji Nagar	NN	350	C	N.A.	Yes	30%	35%	30%	5%	Y	N	Y	N	Y	Y
Gandhi Nagar Street	NP	375	C	Public	Yes	3%		20%	80%	Y	Y	Y	Y	Y	Y
Siddiq Nagar	NP	500	P	Public	Yes	100%				Y	N	Y	N	Y	Y
Slum Near Bridge	NN	20	P	Public	Yes	100%				N	N	Y	N	N	N
Near Airport 1	U	20	P	Private	Yes	100%				Y	N	N	N	N	N
Near Airport 2	NP	N.A.	P	Public	O			100%		Y	Y	Y	Y	Y	Y
Prakash Nagar	UH	N.A.	P	Private	O		30%	50%	10%	Y	Y	Y	Y	Y	Y
Fateh Sultan	UH	N.A.	P	Private	O			100%	10%	Y	Y	Y	Y	Y	Y
Errakunta	UH	2000	P	Private	O			100%	10%	Y	N	Y	Y	Y	N
Budwel Rajendra Nagar	UH	2000	P	Private	O			100%	10%	Y	Y	Y	Y	Y	Y
Shanthi Nagar	UH/N	200	P	Private	O			100%	10%	Y	Y	Y	Y	Y	Y
New Slum	U	N.A.	P	Private	Yes	100%				Y	N	N	N	N	N
Sriram Street	UH	350	P	Private	O			100%	10%	Y	N	Y	Y	Y	N
Slum near Boyenpally	U	80	P	Private	O			100%	10%	Y	N	N	N	N	N
Sangeet Nagar	UH	N.A.	P	Private	O			100%	10%	Y	Y	Y	Y	Y	Y

STATUS	N = Notified slum; NN = Recognised/Identified slum; NP = Notified slums with patta holders; UH = Unauthorised housing
LOCATION	C = City; P = Periphery of the city
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ELECTRICITY, WATER, TOILET	IND = Independent; CMN = Community; OTH = Shared with neighbours or procured through other means

PUNE

NAME	STATUS	HOUSEHOLDS	LOCATION	LANDOWNER	ENCROACHED	STRUCTURE				ELEC-TRICITY	WATER		TOILET		DRAINAGE
						K	SP	P	G+	IND	IND	CMN	IND	CMN	
Shanti Nagar	NN	1500	C	Public	Yes	95%		5%	5%	Y	Y	Y	N	Y	Y
Ambedkar Nagar	NN	750	C	Public	Yes	100%			5%	Y	N	Y	N	Y	Y
Padmavati	UH	362	P	Private	O	40%		60%	10%	Y	Y	Y	Y	Y	Y
Sai Nagar	UH	100	P	Private	O	40%		60%	10%	Y	Y	Y	Y	Y	Y
Indira Vasahat	N	817	P	Public	Yes			100%	30%	Y	N	Y	Y	Y	Y
Yamuna Nagar	N	432	C	Public	Yes		30%	70%	30%	Y	N	Y	Y	Y	Y
Khulewadi	NN	347	C	Private	Yes	30%		70%	10%	Y	Y	Y	Y	Y	Y
Lokmanya Nagar	NN	420	P	Private	Yes	100%				Y	N	Y	N	Y	Y
Landewadi	NN	900	C	Public	Yes		30%	70%	20%	Y	N	Y	N	Y	Y
Gosavi Vasti	UH	750	P	Private	O			100%	30%	Y	Y	Y	N	Y	Y
Tukai Nagar	UH	850	P	Private	O			100%	30%	Y	Y	Y	Y	Y	Y
Anna Bhausathe	NN	350	P	Public	Yes		20%	80%		Y	N	Y	N	Y	Y
Kala Khadak	NN	1000	P	Private	Yes	10%	20%	70%		Y	N	Y	N	Y	Y
Unnamed	UI	30	P	Private	Yes	100%				N	N	Y	N	N	N
Ambika Nagar	UH	N.A.	P	Private	O	40%		60%	10%	Y	Y	Y	Y	Y	Y
Rajiv Gandhi	N/NN	87	C	Mix	Yes		50%	50%	10%	Y	N	Y	Y	Y	Y
Unnati Nagar	UH	1000	P	Private	O			100%	40%	Y	Y	Y	Y	Y	Y
Bundelkar Nagar	UH	300	P	Private	O			100%	40%	Y	Y	Y	Y	Y	Y
Navbharat Nagar Colony	UH	300	P	Private	O			100%	40%	Y	Y	Y	Y	Y	Y
Sasane Nagar	UH	700	P	Private	O			100%	40%	Y	Y	Y	Y	Y	Y
Bhairavnath	UH	1000	P	Private	O			100%	40%	Y	Y	Y	Y	Y	Y
Yewalewadi	UH	1250	P	Private	O			100%	40%	Y	Y	Y	Y	Y	Y
Gokul Nagar	UH	1500	P	Private	O			100%	40%	Y	Y	Y	Y	Y	Y
New Slum	UI	50	P	Private	Yes	100%				Y	N	Y	N	N	N

STATUS	N = Notified slum; NN = Recognised/Identified slum; NP = Notified slums with patta holders; UH = Unauthorised housing
LOCATION	C = City; P = Periphery of the city
ENCROACHED	Yes = Encroached; O = Owned Land; Mix = Mix of encroached and owned land
STRUCTURE	K = Katcha; SP = Semi-pucca; P = Pucca; G+ = Structures with 1 or more storeys
ELECTRICITY, WATER, TOILET	Percentages indicate share of HHS by structure based on observations and interviews with residents
	IND = Independent; CMN = Community; OTH = Shared with neighbours or procured through other means

CUTTACK

NAME	STATUS	HOUSEHOLDS	LOCATION	LANDOWNER	ENCROACHED	STRUCTURE				ELEC-TRICITY		WATER		TOILET		DRAINAGE
						K	SP	P	G+	IND	OTH	IND	CMN	IND	CMN	
Harianpur-Bidansi	N	50	C	Public	O	45%	50%	5%		N	Y	N	Y	N	Y	Y
Imam Nagar	NN	400	P	Both	Yes	70%	30%			Y	Y	N	Y	N	N	N
Sathi Gumpha	N	35	P	Private	Yes	50%	50%			N	Y	N	Y	N	N	N
Stewart Patna	NP	100	C	Public	Yes			5%	95%	Y	Y	Y	Y	Y	Y	Y
Deer Park	NN	165	P	Public	Yes	80%	20%			Y	Y	N	Y	N	N	N
Beharompuria Basti	NN	100	C	Public	Yes	30%	70%			N	Y	N	Y	N	N	Y
Gandhi Palli	NP	500	C	Public	O				100%	Y	N	Y	Y	Y	N	Y
Pilgrim Road	NN	800	C	Public	Yes	30%	70%			Y	Y	N	Y	N	Y	Y
Munda Sahi	NN	300	P	Public	Yes	60%	40%			N	Y	N	Y	N	N	N
Tinnath Sahi	NN	50	P	Public	Yes	80%		20%		N	Y	N	Y	N	N	N
Puriaghat Bauri Sahi	NP	125	C	Private	Yes	20%	30%	30%	20%	Y	Y	N	Y	N	Y	Y
Khatajodi Bihar	NN	350	C	Public	Yes	80%	20%			N	Y	N	Y	N	N	N
Alisha Bazar	NP	200	C	Public	Yes			80%	20%	Y	N	Y	Y	Y	Y	Y
Hadiya Patta	NN	50	C	Public	Yes	100%				N	N	N	Y	N	N	N
Jagathpura Truck Terminal	U	50	P	Public	Yes	100%				N	N	N	Y	N	Y	N
Rajabagicha	UH	90	C	Public	O			80%	20%	Y	N	Y	Y	Y	Y	Y
Jahngriman-gada	NP	185	C	Public	Yes			80%	20%	Y	N	Y	Y	Y	Y	Y

STATUS	N = Notified slum; NN = Recognised/Identified slum; NP = Notified slums with patta holders; UH = Unauthorised housing
LOCATION	C = City; P = Periphery of the city
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STRUCTURE	K = Katcha; SP = Semi-pucca; P = Pucca; G+ = Structures with 1 or more storeys
ELECTRICITY, WATER, TOILET	Percentages indicate share of HHs by structure based on observations and interviews with residents
	IND = Independent; CMN = Community; OTH = Shared with neighbours or procured through other means

APPENDIX 2: APPROACH TO INFORMAL AND FORMAL URBAN HOUSING SIZING

SECONDARY DATA COLLECTION

Data was collected from various sources including India's 2011 Census, NSSO (69th Round, July-December 2012) and UN (2009). The census gives segregated population data on households in notified, recognised, and identified slums, as well as homeless households. NSSO gives segregated data on households in notified and non-notified slums whereas UN data provide figures on slum and non-slum population.

Census data was used wherever possible, as these represent a complete enumeration that capture information for the entire Indian population. NSSO data are based on sample surveys, and UN data are estimated based on statistical tools. Thus, the number of households in urban India, notified, recognised slums, and identified slums, as well as homeless households, were adopted from the 2011 Census.

Available literature and expert interviews provided the basis to estimate the sizing of other segments.

COMPUTATION FOR UNAUTHORISED HOUSING

Based on the available data from various cities, unauthorised housing constitutes 15-25 percent of urban households in India.¹

City	Percent of total households in unauthorised housing
Delhi	18
Jaipur	35
Indore	15
Hyderabad	17
Pune	15

Computation for unidentified slums in India are estimated to be 0.1 –3.9 percent of total urban households. This was done based on three sources:

- Estimate 1: 0.1 percent - 1 percent (FSG field-based observation).
- Estimate 2: 0.1 percent (based on M.S. Sriram's GIS mapping of slums in Bangalore).

¹ Delhi: Delhi Economic Survey, 2008-09; Jaipur and Indore: MHUPA case study Indore and Jaipur; Hyderabad: The Hindu, Special drive on BPS, LRS clearance, May 2013; Pune: Mashal, Housing Study for Pune Municipal Corporation, 2009-10.

- Estimate 3: 3.85 percent (any urban household with some level of tenure security, e.g., a household in an “identified” slum, will at least have upgraded from grass/thatch/bamboo/wood/mud and polythene/plastic etc. as roof materials. Number of non-slum urban households with grass/thatch/bamboo/wood/mud or plastic/polythene as roof materials² = 3.85 percent of total urban households).
- Using this estimate, the number of households in unidentified slums is 0.08-3.04 million households.

Calculation for total number of formal houses in India was worked out as total urban households in India less number of households in unidentified, recognised slums, notified slums and unauthorised colonies along with homeless households. This was calculated to be 42.1-52.94 million households.

SUMMARY OF INFORMAL AND FORMAL HOUSING SIZING ESTIMATES

Category	Census ^d	NSSO	UN ^h	Estimates ^a for unavailable data	Final estimates chosen ^b
Recognised slum	3.80	3.25 ^e	21.87 ^c	-	3.80
Identified slum	4.99			-	4.99
Notified slum	4.97			5.56 ^e	-
Unauthorised housing	64.86 ^g	48.14 ^g	55.86 ^g	11.83 – 19.72	11.83 – 19.72
Formal				42.10 – 52.94	42.10 – 52.94
Unidentified slum				0.08 – 3.04	0.08 – 3.04
Homeless	0.26			-	0.26
All Urban	78.86	56.95 ^f	79.12	-	78.86

All values in million HHs unless specified

Note: Ministry of Housing & Urban Poverty Alleviation (MoHUPA) uses data from Census 2011

a. For basis of estimates please see next page; b. Census i.e. a complete enumeration is always preferred over NSSO i.e. a sample survey and UN data which is an estimation; c. UN data in million population converted to HHs using average HH size of 4.5 from DHS (source and basis for UN data); average household size is 4.7 in Census 2011; d. Census 2011; e. NSSO slum survey 2013; f. NSSO Consumer Exp survey, 2012; g. Remainder; h. MDG indicators, UN 2014

2 Census 2011.

APPENDIX 3: IMPACT OF NOTIFICATION OF A SETTLEMENT UNDER THE SLUM ACT ON MARKET VALUE OF UNDERLYING LAND

CASE: THE KARNATAKA SLUM AREAS (IMPROVEMENT AND CLEARANCE) ACT, 1973

Terms of Compensation

- 300X property tax payable on the date of publication of notice to acquire land.
- Where property tax is not payable for the land, the property tax payable for the adjacent land will be used to calculate compensation.

Calculation for Compensation: Rajendra Nagar in Koramangala Area of Bengaluru

- Market rate (2009): INR 78,030 (USD 1,160) per square yard
- Property tax (2009) for vacant land: INR 36 (USD 0.50) per square yard

Compensation @ 300X = INR 10,800 (USD 160) per square yard or 14 percent of market value.

APPENDIX 4: APPROACH FOR ESTIMATING TOTAL MARKET SIZE FOR HOUSING CONSTRUCTION LOANS OF INR 100,000-300,000 IN SECURE HOUSING

1. Number of households in notified slums (census) and unauthorised housing (average number of households in unauthorized housing in FSG informal housing size estimate).
2. Share of owner-occupants (excluding renters)³ in informal housing from census and NSSO data.
3. Share of owner-occupants who believe they are “allowed” to construct (FSG quantitative survey).
4. Share of owner-occupants from (C) that either: i) plan to construct and need a loan; or ii) do not plan to construct due to lack of money but will construct if given a loan (FSG quantitative survey).
5. Share of households that estimate home construction costs between INR 100,000 and INR 300,000 (FSG quantitative survey).
6. Addressable Market Size (number of households) $E = A \times B \times C \times D \times E$
Opportunity Size (INR) $G = F \times \text{INR } 200,000$ (average loan size for INR 100,000 – INR 300,000).

Opportunity for loans in INR 100,000-300,000 for construction in secure housing			
		Notified slums	Unauthorised housing
A	Total households	4,965,000	15,770,000
B	Share of owner-occupants	70.20%*	62%#
C	Share of owner-occupants who believe they are "allowed" to construct	67.00%	75%
D	Share of owner-occupants (C) that need loans to construct	46%	43%
E	% of HHs with construction costs in the range INR 100,000-300,000	35.70%	43.90%
F	Addressable market size (#HHs)	383,493	1,384,260
G	Opportunity size (avg. loan size of INR 200,000) (in millions)	INR 76,699	INR 276,852

* Census; # NSSO

Total opportunity size in secure housing for loans in INR 100,000-300,000 range = INR 353 billion.

³ Non-resident owners who are renting out their house may also want to take out loans for house improvement. However, to provide a conservative estimate, these owners have been excluded.

APPENDIX 5: QUESTIONS FOR THE FIELD

Below are some additional key questions raised by experts, participants at dissemination events, and the FSG team that will require further research.

1. How can the rights of renters in informal housing be addressed?
2. How can the interests and rights of non-residential entities (e.g., shops, schools, clinics) in informal housing be addressed?
3. What is the impact on self-investment and living conditions in settlements where *de jure* property rights (e.g., patta) were granted?
4. What is the “poverty premium” incurred due to poor access or quality of basic services in informal housing?
5. What role might innovations like Aadhar play in the flow of rights and public services in informal housing?
6. What is the past behaviour and future plans for construction amongst owner-occupants who believe they are not “allowed” to construct?
7. How might the government be supported in updating archaic laws and urban planning practices that artificially restrict affordable housing supply?
8. How can the safety of informal housing structures be improved?
9. How do the recommendations in the report compare with recent policy announcements (e.g., Pradhan Mantri Awas Yojana)?

ACRONYMS USED IN THE REPORT

DPSP: Directive Principles of State Policy

GIS: Geographic Information System

HH: Household

INR: Indian Rupee

JNNURM: Jawaharlal Nehru National Urban
Renewal Mission

KYC: Know Your Customer

LIH: Low-income Housing

MFI: Microfinance Institution

MHUPA: Ministry of Housing and Urban
Poverty Alleviation, Government of India

MIM: Monitor Inclusive Markets

MoUD: Ministry of Urban Development,
Government of India

NBFC: Non-Banking Financial Company

NGO: Non-Governmental Organization

NHB: National Housing Bank

NSDF: National Slum Dwellers Federation

NSSO: National Sample Survey Organisation

OECD: Organisation for Economic Co-operation
and Development

PIPE: Programme for Improving Private
Preschool Education

PPP: Purchasing Power Parity

PVC: Polyvinyl Chloride

RBI: Reserve Bank of India

SPARC: Society For the Promotion of Area
Resource Centers

TDR: Transfer of Development Rights

ULB: Urban Local Body

UN: United Nations

URDC: Urban and Development Resource
Centre

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