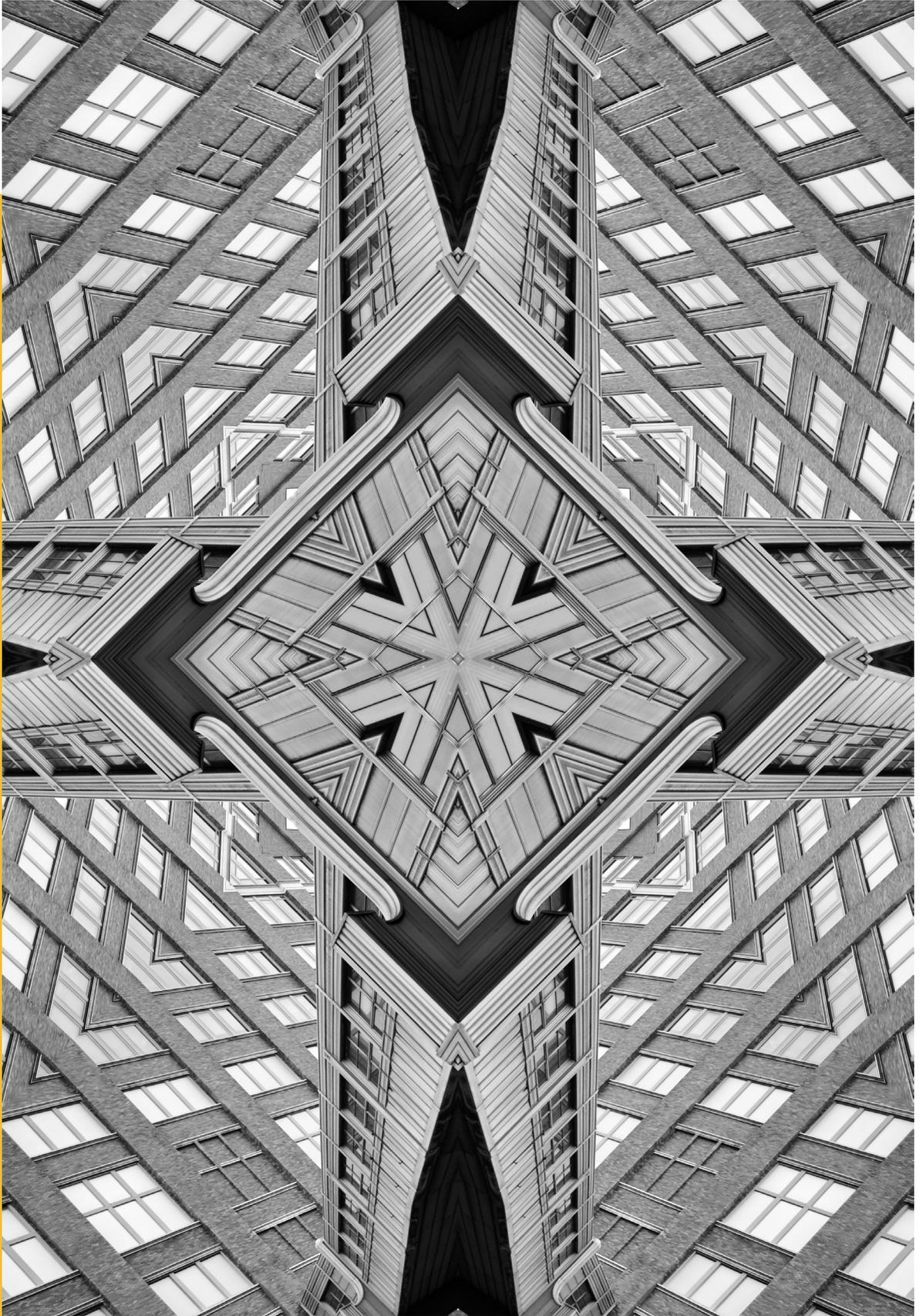


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India's Enduring Urban Housing Shortage: The Case for Upgrading Informal Settlements

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Abstract

In 2015, the Indian government launched the Pradhan Mantri Awas Yojana-Urban (PMAY-U) as a response to the perennial challenge of shortage in urban housing. As of June 2021, 11.2 million houses have been sanctioned under PMAY-U, of which 4.8 million have been completed. However, various analyses indicate that PMAY-U dwellings may be insufficient in quantity, and that some of them may be either unaffordable or unviable for those who need them the most. This paper dissects the nature of India's urban housing shortage and makes an assessment of PMAY-U. It recommends according priority to the upgrade of informal settlements to address the gap and fulfill the aim of providing housing for all.

Latest available data show that the urban housing shortage across India was at 18.78 million houses for the period 2012-2017;¹ 95 percent of the gap was for low-income households. In 2016, the Foundations Strategy Group (FSG) estimated that there are between 26-37 million households living in informal housing such as slums and unauthorised housing.² As per the 2011 Census, there are approximately 108,000 such slums in the country, home to 13 million households of which 3.6 million are renters. Slum households constitute 17 percent of the total urban population. At the same time, there are 11 million vacant homes across urban India.³

Slums have extremely inadequate basic services: 71 percent of them do not have access to underground sewerage, 66 percent have open drainage, or do not have drainage at all; and 41 percent have either dry-pit latrine, or do not have latrine facilities at all (see Table 1). The majority of these slum houses are *pucca* (or designed to be permanent, at 59 percent), or semi-*pucca* (25 percent), and most of the houses are in either good condition (58 percent) or livable condition (37 percent).

**Table 1:
Percentage of Slums by Quality of Housing and Availability of Basic Services (2012)**

Housing structure	% of slums	Housing condition	% of slums
Pucca house	59.6	Good condition	58.4
Semi-pucca house	25	Livable condition	37
Kutchra house	15.4	Dilapidated condition	4
Water	% of slums	Electricity	% of slums
Tap water	71	Electricity for household use only	19.2
Tube-well/hand pump	20	Electricity for street lights only	6.3
Protected/unprotected well	0.8	Electricity for both household and streetlight	67.6
Other sources	7.4	No electricity	6.5
Sewerage	% of slums	Drainage system	% of slums
Underground sewerage available	28.9	No drainage system	31
Underground sewerage not available	71.1	Open pucca drainage system	35
		Underground drainage system	19
Garbage disposal	% of slums	Latrine facilities	% of slums
Municipality arrangement	62	Latrine facility available	53
Self-arrangement	11	Dry pit latrine facility	10
No arrangement	27	Latrine facility not available	31

Source: Ministry of Housing and Urban Poverty Alleviation (MoHUPA)⁴

Introduction

Households in slums generally do not have tenure security. Between 2017-19, some 280,000 people were forcefully evicted during campaigns to clear slums and remove encroachments, as well as for “beautification” projects and those related to the ‘Smart Cities Mission’. Another 46,400 people were evicted in the same period, to make way for state housing projects.⁵ To be sure, tenure security varies across slums depending on Central and state level classification. Households in slums ‘notified’ under the Slum Act are protected from evictions, and city governments can provide basic services to them. If displaced, they are eligible for rehabilitation as well. ‘Recognised’ slums, meanwhile, are present in state records, but are not notified under the Slum Act. For their part, ‘identified’ slums have been enumerated in the Census, but are not recognised by their states. Residents in ‘recognised’ and ‘identified’ slums (non-notified slums) can be easily evicted, and city governments cannot legally provide any basic services to them.⁶

Consequently, the level of basic services also differs across slum categories. While 15 percent of residents in notified slums do not have latrine facilities, this jumps to 42 percent in non-notified slums. While 32 percent of residents in notified slums have reported benefitting from slum improvement schemes, this figure drops to 18 percent in non-notified slums.⁷

Informal housing also includes ‘unidentified’ slums, which are settlements with less than 60 households. Unidentified slums are not present in official records and are home to an estimated 0.08-3.04 million households as per the 2016 FSG report. These slums are usually built on untenable land that may be unsuitable for human habitation, or located either outside municipal boundaries, the city outskirts, or on pavements. The level of basic services in unidentified slums is the worst amongst all slum categories.⁸ Such slums can also result from evicting and breaking up larger slums, and may be increasing in number.⁹

Introduction

Slums are important for generating livelihoods. Census data shows that slums are located near residential areas (66.4 percent), industries (9.5 percent), or commercial establishments (6.7 percent).¹⁰ Several types of small businesses operate in slums, such as tailoring, leather, jewelry, and pottery, and larger slums may have entire micro-industries. Slum dwellers may also be in jobs such as construction or domestic work. Multiple studies indicate that average monthly household incomes in slums range from INR 2,000-15,000.¹¹

The second type of informal housing is *unauthorised housing*, which is home to an estimated 12-20 million urban households across India, as per the 2016 FSG report. These dwellings are built on land that has not been approved for residential use by planning authorities. It often comes up on the edge of cities, on agricultural land or undeveloped land, and cannot be mortgaged for loans. These houses are home not only to low-income households, but to middle-income groups as well. Although residents have relatively more tenure security than those residing in slums as they own the land on which their house stands, they still face the threat of evictions due to the nature of land-use.¹² Access to basic services is also dependent on the respective state's regularisation policies. Regularisation deems such housing to be legal, and city governments can therefore provide basic services to them.

“India’s urban housing shortage is estimated at some 18.78 million dwellings, 95% of which are for low-income households.”

Current Government Responses to Urban Housing Shortage

India's urban housing shortage is more a result of congestion, lack of tenure security, and inadequate basic services in existing informal housing, rather than the lack of material housing structures itself. Over the years, various schemes have been implemented by a succession of governments to address this shortage. One of them is the Pradhan Mantri Awas Yojana - Urban (PMAY-U), launched in 2015 to provide subsidies to private developers or directly to households, to make housing more affordable. There are four verticals under PMAY-U:

Affordable Housing-in-Partnership (AHP): Private developers receive a subsidy of INR 150,000 for constructing units meant for low-income households within their housing projects (see Table 2). AHP follows the 'resettlement' model, which involves relocation of beneficiaries, away from their original settlements.

In-situ Slum Redevelopment (ISSR): Private developers demolish existing slums, and replace them with apartment buildings, also on slum land. In exchange, they receive a subsidy of INR 100,000 and a portion of the slum land to undertake commercial developments (see Table 2). ISSR follows the 'redevelopment' model, which involves demolishing slums and constructing new housing in its place, but here private developers are incentivised to pay for the redevelopment.

Beneficiary-Led Construction (BLC): Low-income households receive a subsidy of INR 150,000 to build or improve housing themselves, contingent on land ownership (see Table 2). BLC partially follows the 'upgrading' model as it supports self-construction. Upgrading also includes ensuring security of tenure and protection from eviction, and most importantly, improvement in basic services such as water, sanitation, roads, and street lighting.¹³ Such a comprehensive upgrading approach is not part of BLC, as it only includes support for self-construction.

Current Government Responses to Urban Housing Shortage

Credit-Linked Subsidy Scheme (CLSS): Households receive a subsidy on the interest on housing loans, upto INR 235,000 to 267,000, which can be used to purchase new houses, or improve existing ones (see Table 2). CLSS follows either the ‘resettlement’ or ‘upgrading’ model, depending on the manner in which the housing loan is used. Loans used to purchase apartments will involve ‘resettlement’ while those for housing construction or improvement partially follow the ‘upgrading’ model, like BLC.

The eligibility and quantum of subsidy under each vertical is described in detail in Table 2.

**Table 2:
PMAY-U Eligibility and Subsidies**

Eligibility and subsidies under each PMAY-U vertical						
Income group	Income level	Housing size	Subsidies			
			AHP (Resettlement model)	CLSS (Resettlement or partial upgrading model)	ISSR (slum redevelopment model)	BLC (Partial upgrading model)
EWS (Economically Weaker Sections)	Upto INR 300,000	30 sqm	- INR 150,000 subsidy given directly to the developer; - Min 250 units in project; - 35% units meant for EWS;	- 6.5% on interest component for loans of INR 300,000-600,000; - Max subsidy of INR 267,000.	- INR 100,000 subsidy given directly to the developer - Applicable for all eligible slum dwellers; - Slum land/TDR directly to developer; - Housing may be free or beneficiary contributions may be collected.	-INR 150,000 for construction / extension of house
LIG (Low Income Groups)	INR 300,000-600,000	60 sqm	- LIG may be covered along with EWS. - Private or government land.			NA
MIG (Middle Income Groups)	INR 600,000-1,200,000	160-200 sqm	NA	- 4% on interest component (max INR 235,000) for loans of INR 600,000-1,800,000		NA

Sources: Pradhan Mantri Awas Yojana Guidelines14 and HDFC page on CLSS15

Current Government Responses to Urban Housing Shortage

PMAY-U is India's largest housing scheme till date. As of June 2021, some 11.2 million houses have been sanctioned under PMAY-U, of which 4.8 million have been completed.¹⁶ Of these sanctions, as of February 2021, 9.9 million were for households with income upto INR 300,000.¹⁷ The breakdown under each vertical is available only in the minutes of the meetings of the Central Sanctioning and Monitoring Committee (CSMC). The data from the minutes of the last two CSMC meetings, the 52nd meeting in January 2021 and 51st CSMC meeting in August 2020 covers 25 states (see Tables 3 and 4).¹⁸ There are 10.3 million houses that have been sanctioned under the four verticals, of which 64.4 percent were under BLC alone.

**Table 3:
Houses Sanctioned and
Completion Rates Under PMAY-U
Verticals**

	Houses sanctioned*	% of total houses sanctioned	% Completed
AHP	2,002,112	19.40	17.60
ISSR	470,285	4.56	24.03
BLC	6,649,625	64.44	27.38
CLSS	1,197,191	11.60	
Total	10,319,213		22.15

Sources: 52nd and 51st CSMC minutes data | Note: Data for 6 states and UTs (Arunachal Pradesh, Goa, Haryana, Lakshadweep Islands, Meghalaya, Nagaland and Sikkim) was not available in these CSMC minutes.

Current Government Responses to Urban Housing Shortage

**Table 4:
Houses Sanctioned and Completion Rates of 25 states**

State	AHP		ISSR		BLC		CLSS sanctions	Totals	
	Sanctions	% Complete	Sanctions	% Complete	Sanctions	% Complete		Sanctions	% Complete
52nd CSMC (January 2021)									
Assam	128	0.00	108	0.00	120,134	16.31	2,896	123,266	16.28
Gujarat	61,337	6.89	220,626	45.48	123,333	27.36	318,226	723,522	34.12
Himachal Pradesh	0	NA	0	NA	10,673	30.86	1,234	11,907	30.86
Jharkhand	45,235	1.14	15,817	0.00	127,833	55.37	9,826	198,711	37.74
Karnataka	354,448	3.94	0	NA	224,884	41.73	53,536	632,868	18.61
Madhya Pradesh	143,104	11.66	2172	0.00	594,720	43.13	92,467	832,463	36.92
Maharashtra	497,591	1.39	223,237	5.68	246,297	9.14	314,777	1281,902	4.35
Odisha	6,962	0.00	7,300	0.00	140,816	47.55	7,135	162,213	43.18
Puducherry	0	NA	0	0	12,706	23.04	1,823	14,529	NA
Punjab	570	30.88	1,025	0.00	76,230	10.98	24,705	102,530	10.98
Rajasthan	43,167	12.94	0	NA	78,187	0.53	68,791	190,145	4.94
Tamil Nadu	167,328	21.91	0	NA	458,856	48.05	67,675	693,859	41.07
Uttar Pradesh	133,668	0.55	0	NA	1,528,741	35.97	95,326	1,757,735	33.12
West Bengal	2,394	0.00	0	NA	445,695	35.34	46,864	494,953	35.15

Current Government Responses to Urban Housing Shortage

State	AHP		ISSR		BLC		CLSS sanctions	Totals	
	Sanctions	% Complete	Sanctions	% Complete	Sanctions	% Complete		Sanctions	% Complete
51st CSMC minutes (August 2020)									
Andaman & Nicobar Islands	555	0.00	0	NA	38	44.74	4	597	2.87
Andhra Pradesh	311,186	58.67	0	NA	1,674,915	6.56	0	1,986,101	14.72
Bihar	0	NA	0	NA	337,685	11.82	9,966	347,651	11.82
Chattisgarh	65,784	14.57	0	NA	167,896	36.98	14,248	247,928	30.67
Kerala	774	0.00	0	NA	102,325	52.97	15,766	118,865	52.57
Manipur	0	NA	0	NA	49,978	6.32	176	50,154	6.32
Mizoram	0	NA	0	NA	34,062	5.07	1018	35,080	5.07
Telangana	153,701	48.44	0	NA	0	NA	40,173	193,874	48.44
Tripura	1,000	0.00	0	NA	80,544	49.41	1,042	82,586	48.80
Uttarakhand	13,180	1.70	0	NA	13,077	24.33	9,517	35,774	12.97
Total	2,002,112	17.60	470,285	24.03	6,649,625	27.38	1,197,191	10,319,213	22.15

Sources: 52nd and 51st CSMC minutes data

BLC performs better than other verticals in nearly all states. Only three states—Karnataka, Telangana, and Maharashtra—have a higher number of AHP sanctions, while Gujarat has a higher number of ISSR sanctions. With the exception of these states, sanctions under BLC make up a majority in all other states, ranging from 67 to 99 percent of total sanctions (see Table 5). Completion rates are also generally better for BLC. For example, completion rates for AHP for all states are below 10 percent with the exception of Madhya Pradesh, Rajasthan, Tamil Nadu, Andhra Pradesh, Telangana, and Chattisgarh. On the other hand, completion rates for BLC in most of the states are above 20 percent, with the exception of Assam, Manipur

Current Government Responses to Urban Housing Shortage

and Mizoram, Maharashtra, Punjab, Rajasthan, and Andhra Pradesh. Overall completion rates are lowest among these states as well (see Table 4). Three of these states—Assam, Manipur and Mizoram—are north-eastern states, which have severe infrastructure deficits, due to which development projects generally take longer to realise.¹⁹

**Table 5:
BLC Sanctions, by State**

State	Total sanctions	BLC as % total sanctions
Assam	123,266	97.46
Gujarat	723,522	17.05
Himachal Pradesh	11,907	89.64
Jharkhand	198,711	64.33
Karnataka	632,868	35.53
Madhya Pradesh	832,463	71.44
Maharashtra	1,281,902	19.21
Odisha	162,213	86.81
Puducherry	14,529	87.45
Punjab	102,530	74.35
Rajasthan	190,145	41.12
Tamil Nadu	693,859	66.13
Uttar Pradesh	1,757,735	86.97
West Bengal	494,953	90.05
Andaman & Nicobar Islands	597	6.37
Andhra Pradesh	1,986,101	84.33
Bihar	347,651	97.13
Chattisgarh	247,928	67.72
Kerala	118,865	86.09
Manipur	50,154	99.65
Mizoram	35,080	97.10
Telangana	193,874	0.00
Tripura	82,586	97.53
Uttarakhand	35,774	36.55
Total	10,319,213	64.44

Sources: 52nd and 51st CSMC minutes data

Current Government Responses to Urban Housing Shortage

The variation in sanctions and completion rates for different verticals can be attributed to their design. The verticals need to be evaluated based on the three factors that affect housing decisions of beneficiaries: its affordability, viability, and adequacy. ‘Affordability’ refers to the ability to finance housing; ‘viability’ is the geographical feasibility of the housing—to be able to access work opportunities, schools, health centres, ration shops, and public transportation systems; and ‘adequacy’ refers to the material structure of the housing and access to basic services.²⁰ The next sections evaluate the housing supplied under each vertical to determine whether they fulfil these factors.

“The housing shortage is more a result of congestion, lack of tenure security, and inadequate basic services in existing informal housing, rather than the lack of material housing structures itself.”

Resettlement Under Affordable Housing in Partnership (AHP)

Under AHP, private developers receive a subsidy of INR 150,000 per unit developed for low-income households within their housing projects. The price and allotment of the units are decided by the states, and the dwellings are typically built on cheaper land that may be located far away from commercial areas. AHP follows the ‘resettlement’ model, in which beneficiaries are relocated away from their original informal settlements.

Data from the CSMC minutes of meetings, shows that 527,376 AHP houses were cancelled in nine states (see Table 6), while another 362,087 completed AHP units were unoccupied, equivalent to 92 percent of total completed units (see Table 7). This is not a first. Till 2014, there were over 550,000 vacant houses from previous housing schemes, which reduced to 160,000 after the central government pressured the states to allot them.²¹ The experiences of beneficiaries in resettlement programmes serve as a blueprint of the issues in AHP housing; they may also explain AHP’s large cancellation and occupancy rates.

**Table 6:
PMAY-U Cancellations**

AHP Cancellations			
51st CSMC minutes (August 2020)		52nd CSMC minutes (January 2021)	
State	AHP cancellations	State	AHP cancellations
Assam	571	Gujarat	3,528
Chattisgarh	9,659	Karnataka	6,997
Gujarat	11,571	Maharashtra	32,392
Uttar Pradesh	2,475	Rajasthan	3,232
Andaman and Nicobar Islands	571		
Andhra Pradesh	390,525		
Telangana	48,408		
Karnataka	1,100		
Tamil Nadu	16,347		
Total AHP cancellations = 527,376			

Sources: 52nd and 51st CSMC minutes data

**Table 7:
AHP Occupancy**

State	AHP completions	AHP occupancy	Vacancy	AHP occupancy rate (%)
Chattisgarh	9,582	1,253	8,329	13.08
Gujarat	77,783	19,405	58,378	24.95
UttarPradesh	540	0	540	0.00
Rajasthan	5,120	0	5,120	0.00
Andhra Pradesh	182,582	9,567	173,015	5.24
Telangana	74,450	0	74,450	0.00
Karnataka	13,981	31	13,950	0.22
Uttarakhand	224	224	0	100.00
Tamil Nadu	28,559	254	28,305	0.89
Total	392,821	30,734	362,087	7.82

Sources: 52nd and 51st CSMC minutes data

The previous housing scheme, Basic Services for Urban Poor (BSUP) was implemented in 63 cities from 2005-12 (later extended to 2017), involving mostly resettlement and redevelopment. A large 2013 study across 31 BSUP sites in 11 cities found that a majority of the dwellings were badly constructed, and did not have adequate basic services. Slum households were not given a choice between resettlement, redevelopment, or upgrading. There was also little consultation with them, if at all, on matters such as their roles in the projects. Residents in nearly all sites were dissatisfied with the initiatives, and protested or resisted moving and paying their contributions.²²

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Further, governments carried a majority of the costs, and beneficiaries were required to pay 10-12 percent. In reality, however, beneficiary contributions escalated to unaffordable levels. For example, in Bhopal in Madhya Pradesh, contributions were initially set at approximately INR 10,000-34,000, which rose to approximately INR 57,000-89,000 (36-41 percent of project cost). This was unaffordable for slum dwellers, whose average monthly income is approximately INR 6,200. In Visakhapatnam in Andhra Pradesh, contributions were set at approximately INR 61,000-69,000 (30 percent of project cost), which was unaffordable for many. Officials in both cities were clear that only those households that are able to pay would be included in projects, and those who did not make their payments on time, would be evicted.²³

Relocated beneficiaries may also lose their livelihoods, and face an increase in cost of living, further reducing their ability to afford such housing. For example, in Vatva, a BSUP site in Ahmedabad in Gujarat, beneficiaries were required to pay INR 6,900 as their first payment and then INR 69,900 over a period of 10 years, after which they would receive ownership rights of their units. The units themselves were inadequate, but living costs, such as electricity bills, were high. Beneficiaries faced difficulties in making their payments, as there were limited employment opportunities around and they were not allowed to attempt self-employment such as opening retail shops. They were reportedly harassed and threatened with eviction by local authorities and the police for failing to make their payments.²⁴

Another 2018 study conducted in eight resettlement sites in Indore in Madhya Pradesh shows that the percentage of households earning less than INR 5,000 had doubled after resettlement, totalling to around half the residents. Average unemployment period post-resettlement was nearly eight months. The sites lack basic and social service infrastructure, and distances to work and schools have increased the cost and time spent in commuting.²⁵ Another 2016 study, this time in Ahmedabad in Gujarat, of beneficiaries who were

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resettled through the lottery system found that only two-thirds of the beneficiaries took up their allotted housing; of them, one-third eventually left. Nine of every 10 (90 percent) of the beneficiaries either missed their payments or leased their housing. They also lost their informal money lending networks in the resettlement process.²⁶

A pattern that emerges from these many examples is that resettlement offers poor quality of life, may worsen poverty, and stunts development. Households prefer to stay in slums located within cities from where they have access to work opportunities and other infrastructure. They are also averse to resettlement as they do not want to lose their investments in slum housing.

Kannagi Nagar in Chennai in Tamil Nadu, for example—one of the country’s largest resettlement sites—was awarded the third prize in the ‘All-India Low Cost Housing Competition’ on ‘Squatter Settlement’ in 2002, as the site was supposedly a “solution that could be replicated in terms of cost and benefits for people and government.” The reality, however, is different.²⁷ A 2014 study found that 79 percent of the residents had lost their livelihoods due to increased distances to their places of work. The units lacked ventilation for cooking, and were small for home-based work. Quality and access to basic and social services was low. Water needed to be collected from public taps, contaminated water was received in some areas, and garbage was being left uncollected. Schools were few and ration shops and hospitals were a considerable distance.²⁸ Poor resettlement also bred other problems: the site had higher incidences of domestic abuse, theft, suicides and murders than in other parts of the city.²⁹

However, the resettlement model persists through the AHP vertical of the current flagship programme, PMAY-U. Further, in mid-2020, the Affordable Rental Housing Complexes (ARHC) scheme targeting migrant workers was launched under the initiative. The scheme has two models: converting vacant, subsidised housing to AHRCs, and building new AHRCs under a framework similar to AHP. Some 75,000 vacant housing units were expected to be converted into

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AHRCs.³⁰ However, in introducing this scheme, policymakers have failed to understand the reasons for such dwellings being vacant in the first place. Beneficiaries are likely to suffer, and migrant workers will be worse off, as they tend to be forgotten by the city.

Redevelopment Under In-Situ Slum Redevelopment (ISSR)

Under ISSR, private developers demolish slums, and in their place, build apartment buildings for slum households. The dwellings can be given to slum households for free or for a pre-decided contribution. In exchange, developers are given INR 100,000 per unit built for slum households, along with a portion of the slum land or Transferable Development Rights, which can be used to develop commercial real estate. The profits from the commercial component is intended to cross-subsidise the apartment buildings. ISSR looks beneficial on paper: slum households get free housing on slum land, private developers execute the project, and the slum land pays for everything. However, it accounts for only 4.5 percent of total sanctions under PMAY-U (or 470,285 units), a large share of which are in Maharashtra (220,626) and Gujarat (223,237). In both these states, the ISSR model has been operational prior to PMAY-U—in Maharashtra since 1995, and in Gujarat since 2010.

Case study: Mumbai

Around 6.2 million people live in Mumbai's slums and the need for adequate housing is acute. Under the Slum Rehabilitation Authority (SRA), slum households are entitled to an apartment free of cost. In order to receive SRA housing, households must prove that they have been a resident of their slum from 1 January 2000 onwards. This proof is usually given through ownership documents of slum tenements or utility bills. Households are allowed to scan project plans and select developers. Projects require consent from 70 percent

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of slum households, and, if consent is given, the remaining 30 percent are required to participate. SRA also commissions projects that involve resettlement for slum households affected by infrastructure projects.

By 2014, 20 years after the scheme was launched, only 468,093 units had been approved, of which 24 percent were completed. Further, only 33 percent of completed units had been given occupancy certificates.³¹ Developers tend to choose slums located on prime lands, leaving out many slums. By 2016, only 197 out of 1,524 projects were completed³² and by 2019, over 1,000 projects were still incomplete—45 percent of which had been delayed due to unavailability of funds.³³ Many slum households face displacement without any alternative, because they are migrants or tenants, or else fail to meet the cut-off criteria. Given that there is substantial scope for profit to be made in these projects, implementation issues run rife. Developers have created ‘ghost’ beneficiaries,³⁴ retained units meant for slum households,³⁵ provided fewer units than promised,³⁶ and bullied households to consent to the project.³⁷ There are cases of households being asked to make hefty payments to be eligible³⁸ and others getting completely left out of projects.³⁹ This list of issues is by no means exhaustive.

SRA housing has neither been supplied in the desired quantities, nor has it met the needs of Mumbai’s slum households, and are infamously known as ‘vertical slums’.⁴⁰ Several studies have found poor quality construction, inadequate and expensive basic services and maintenance, congestion, and severely negative impacts on health in SRA housing. The SRA does not prescribe any specific standards on the quality of SRA housing, and developers often use substandard construction materials, resulting in poor quality housing conditions.⁴¹ Residents reported poor construction of water and sewage pipelines as well as poor quality of water supplied in a 2016 study. Indeed, they went on to say that in slums, they received illegal but clean water, and now get legal and contaminated water in these new apartments.⁴² Maintenance can be expensive as well. One 2019 study found that households spent 10-30 percent of their income on electricity bills,⁴³ and another study in the same year found that lifts were only being

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partially used (two or three times a day) to save on electricity costs.⁴⁴ The SRA also does not undertake any responsibility for maintenance of the apartments after handover. Slum households typically live in multi-story housing that they have built over the years, and the single-bedroom SRA apartment can get congested.⁴⁵ Social networks built in slums are also severely affected in high-rise buildings. For example, they restrict movement of women by bringing cleaning, cooking, child rearing and entertainment activities indoors, which was typically practiced outdoors in slums.⁴⁶

The worst impacts are on health. A study conducted in 2017-18 on the incidence of Tuberculosis (TB) in two resettlement colonies found that 10-11 percent of households have at least one TB patient. The cause was attributed to poor design, as the buildings were separated by a mere three meters and windows could not be opened, leading to lack of sunlight and ventilation in the apartments.⁴⁷ Another resettlement site, in Mahul, with 72 buildings is located next to refineries and chemical factories, and is known as the city's "human dumping ground". An evaluation of the site in 2018 for the Mumbai High Court found high levels of air pollution, sewage overflow, water contamination, and risk of industrial disasters.⁴⁸ Residents had contracted various illnesses after moving to the site, such as pregnancy complications, TB, lung diseases, breathing problems, skin problems, cancer, and hypertension.⁴⁹ SRA housing was also the location of one of the first reported COVID-19 cases in Mumbai.⁵⁰

Key Implementation Issues in Resettlement and Redevelopment Schemes

Resettlement and redevelopment schemes suffer from issues such as availability of land and exclusion of potential beneficiaries. In turn, the availability of land for low-income housing is affected by issues such as lack of coordination among governmental bodies, unnecessary stronghold over surplus railway land, weak state housing policies, dilution of laws, and the ambiguity of the definition of tenability. Exclusion of slum households is worsened due to lack of legal documentation, inadequate and incomplete surveys, and arbitrary cut-off dates.

Resettlement, Redevelopment, or Private Sector-Led Housing: An Analysis

1. Availability of land for low-income housing

Government departments often fail to coordinate with each other to make land available for low-income housing. For example, in 2006, Kenneth Builders and the Delhi Development Authority (DDA) entered into a Public Private Partnership, similar to the ISSR framework, for a slum in Delhi. However, the project was shelved as the land did not belong to DDA and they were unable to coordinate the land transfer to Kenneth Builders. Another example is housing built in Patna, Bihar under two previous housing schemes. Only 1,000 units were built instead of the planned 40,000 as the Central government bodies owned a majority of the slum lands, and the state was unable to acquire them.⁵¹

There is an unnecessary stronghold over surplus railway lands as well. Slums take up only 0.5 percent of railway lands, but they are not protected from eviction, and there is no resettlement policy in place, either. Although city governments have the option to lease surplus railway lands, this may be unaffordable. For example, in Visakhapatnam in Andhra Pradesh, 15.5 out of the 22.7 acres occupied by slums is surplus railway land. However, the city authorities were unable to lease the surplus lands due to lack of funds.⁵² Under an earlier housing scheme, the city authorities built housing on its periphery as they had limited control of land within the city. This was because significant portions of land were held by Central government agencies and parastatals.⁵³

States also fail to strengthen their policies to earmark land for low-income housing. Even when land is allocated for low-income housing, inclusion is uncertain, and many can get left out. For example, Gujarat's Town Planning Scheme has a mandate to provide housing to people displaced from projects, but the initiative does not cover those who do not own land or do not have *patta* rights (*patta* refers to a plot in slums).⁵⁴

Resettlement, Redevelopment, or Private Sector-Led Housing: An Analysis

Laws are also being diluted unfavourably. For one, the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (LARR) Act, 2013 gave households some protections due to displacement by infrastructure projects. However, in 2015, amendments were recommended to LARR such as foregoing consent from existing residents, and removing the mandate to conduct social impact assessment with respect to five types of projects—national security or defense, rural infrastructure, industrial corridors and infrastructure, and ironically enough, affordable housing and social infrastructure.⁵⁵ The most straightforward consequence of removing consent is that households can easily be evicted without adequate resettlement.

Another important issue that affects availability of land is the ambiguity in defining its tenability i.e, its habitability. For example, slum dwellers living on the banks of *nallas* (drains) in Lucknow in Uttar Pradesh were evicted on the basis of the land being untenable; after eviction, the land was declared tenable again. In Ranchi in Jharkhand, older slums were declared tenable, while slums on both government and private lands which were not notified or had renters, were declared untenable.⁵⁶ In Delhi, where 71 percent of slums were declared untenable, an unreasonable criteria was used: slums were declared untenable if they were located on land demarcated for gardens and parks, railway zones or road beams, or were less than 2,000 sqm in size.⁵⁷ The lack of a uniform evidence-based criteria to declare a slum tenable or untenable, prevents households from benefiting from in-situ housing schemes, and may result in wastage of land that could have otherwise been used to meet housing needs.

Resettlement, Redevelopment, or Private Sector-Led Housing: An Analysis

2. Exclusion of potential beneficiaries

The most common approach so far to decide who is included in housing projects or not, is cut-off dates—i.e, the date from which the slum household had resided in that city or slum. This is proved through legal documentation (for example, *patta* rights papers) or past records in slum surveys. Sometimes projects conduct fresh surveys to identify beneficiaries, but then too some proof is demanded. This entire system is problematic for three reasons.

First, slum households mostly lack legal documentation to prove residence, especially migrants and renters. A study in four cities—Indore in Madhya Pradesh Bhubaneswar in Odisha, Guwahati in Assam, and Mumbai in Maharashtra—found that 35 percent of the slum population were not eligible for housing schemes as they did not have legal documentation, and only 1.25 percent lived on owned land.⁵⁸ A survey in Nagpur in Maharashtra found that slum dwellers aspired to upgrade their homes under BLC, but only 8.8 percent had property tax receipts.⁵⁹ In Dharavi, which is home to over one million people, only 100 households own the land or tenements.⁶⁰

Second, slum surveys are necessary to establish beneficiary lists, but these are not carried out properly or regularly for all types of slums. Very few cities, such as Kolkata in West Bengal, have regularly made efforts to carry out slum surveys for both notified and non-notified slums. In Tamil Nadu, surveys for notified slums have been carried out since 1975, but the first survey of other types of slums was commissioned in 2002. Large cities such as Bengaluru in Karnataka and Chennai in Tamil Nadu, limit their surveys to notified slums.⁶¹ In Mumbai, where the slum redevelopment has been operational since the 1990s, city-wide slum surveys started in 2016.⁶² Demand surveys under PMAY-U are also lacking. For example, consultations with grassroots organisations in 2018 found that some places such as Patna in Bihar, have been only including people with land in their surveys, and incomplete surveys have also been reported in Indore in Madhya Pradesh and Hyderabad in Telangana.⁶³

Resettlement, Redevelopment, or Private Sector-Led Housing: An Analysis

Third, cut-off dates are random. To be eligible in Delhi, slum households should have been living in the city before 1 January 2015, while the settlement in which they live should have existed before 2006. In Maharashtra, the cut-off date was changed from 1995 to 2000 in 2014, although slum dwellers had demanded it be changed to 2009.⁶⁴ Some 40-50 percent of the 400,000 slum dwellers living in 32 slums on land allocated for the expansion of Mumbai International Airport, can get excluded from resettlement due to the prevailing cut-off date.⁶⁵

Housing Supplied by Private Sector Under Credit Linked Subsidy Scheme (CLSS)

Under CLSS, households can avail an interest subsidy on housing loans ranging from INR 235,000 to INR 267,000, making it the largest subsidy offered by PMAY-U. A separate subsidy of INR 350,000 on housing loans is also offered on purchase of housing with stamp duty value upto INR 4.5 million.⁶⁶ Subsequently, building 'Affordable Housing', with price tag of upto INR 4.5 million has become the new trend.⁶⁷ Relying on the private sector in this manner to manage the housing shortage poses two primary problems.

First, housing with a price tag of INR 4.5 million is not affordable by those who actually need it. As per the housing shortage estimates for 2012-17, households earning less than INR 10,000 per month suffered 95 percent of the shortage.⁶⁸ Several other studies also show that average incomes of slum households range from INR 2,000-15,000.⁶⁹ As per internationally followed principles, housing should cost between three to four times the annual income or one-third the monthly income for it to be considered affordable. In the best-case scenario, households would demand housing priced in the range of INR 72,000 to INR 720,000. However, with such low incomes, expenses such as health and education often take priority. One-fourth of the slum population are renters, who also spend less. According to National Sample Survey Office (NSSO) data, small houses of less than 25 sqm are most rented across urban cities, at approximately INR 2,000 per month, while average rent across all house sizes is around INR 3,300.⁷⁰

Resettlement, Redevelopment, or Private Sector-Led Housing: An Analysis

Perhaps this is why a 2018 study by FSG and the National Housing Bank (NHB) found that over 90 percent of the houses purchased by low-income households are built by small, informal developers, while mid-size and large branded formal developers make up, respectively, only 9 and 1 percent of the housing supply.⁷¹ However, in the name of ‘Affordable Housing’, developers continue to build housing that is not actually affordable by households suffering from the shortage. Expectedly, such housing has low demand.⁷²

Second, low-income households face difficulties in procuring housing loans, and subsequently, loan subsidies fail on-ground. The study by FSG and NHB also found that such households are largely served by smaller Affordable Housing Finance Companies (AHFC), whose average loan size is INR 930,000. While this amount is larger than the estimates based on average incomes mentioned earlier, the report estimates that AHFCs have facilitated home ownership for a mere 230,000 households since 2013—a fraction of the actual need. The preference for self-construction is evident here as well—only 38 percent of the finance provided by AHFCs is used to purchase apartments, while 62 percent is used to build stand-alone houses.⁷³

Both the CLSS subsidy and the separate one for housing priced at INR 4.5 million need to be rethought. Housing supplied by the private sector should only be subsidised when it serves those suffering from the housing shortage, which is not the case right now, and the expensive ‘affordable’ housing being supplied right now is going to waste. Difficulties in procuring loans faced by low-income households is a much larger question tied to livelihoods, and the viability of new housing, which needs to be necessarily addressed in housing schemes.

Resettlement, Redevelopment, or Private Sector-Led Housing: An Analysis

Beneficiary-led Construction (BLC): The Most Popular PMAY-U Vertical

Under BLC, the fourth PMAY-U vertical, households can avail a subsidy of INR 150,000 to build housing on land that they own. BLC is by far the most popular of all of PMAY-U's verticals, accounting for 64.4 percent of the total sanctions under PMAY-U. It also has the highest completion rate at 27.3 percent (see Table 3). Since the benefits of BLC are restricted to those who own land, many states are actively granting tenure security to households to be able to participate. The state of Odisha, for example, passed the “Odisha Land Rights to Slum Dwellers Act, 2017”,⁷⁴ under which land rights and land entitlement certificates have already been distributed to over 165,000 households. The state has gone one step further, and plans to upgrade 2,919 slums in 114 cities; if fulfilled, it will be the world's largest land titling and slum upgrading programme.⁷⁵ Under Andhra Pradesh's ‘Pedalandarikillu Illu’ scheme, patta rights are being granted to all residents on government land.⁷⁶ Some cities such as Nagpur, are also granting patta rights to all slum households.⁷⁷ Madhya Pradesh can be considered a pioneer—in the 1970s, the then Chief Minister granted patta rights on an as-is basis for 30 years.⁷⁸

BLC is more popular than the other verticals for several reasons. Resettlement housing is inconveniently located, poorly built, negatively affects livelihoods, and may lack access to basic and social services. This model is now being followed by PMAY-U's AHP. The ISSR model, meanwhile, has produced poor quality housing, for example in Mumbai which is infamously called ‘vertical slums’. Problems such as land availability and exclusion of households also persist in such projects. For its part, housing produced by the private sector for purchase through loans using the CLSS subsidy may not be affordable by those actually suffering from the housing shortage.

Resettlement, Redevelopment, or Private Sector-Led Housing: An Analysis

BLC, meanwhile, is affordable as well as flexible, as households can expand and build upper floors over time, and use such housing for home-based work. Since the land is already owned, or has been granted recently in existing slums as is happening in Odisha and Andhra Pradesh, it would have already been conveniently located, and is viable. Such housing, with formal tenure security, will also be eligible to receive basic services from city governments, improving their adequacy.

Some states have also cancelled sanctions under other verticals in favour of BLC. For example, in August 2020, over half of the AHP sanctions in Andhra Pradesh were cancelled, with beneficiaries opting for BLC instead. Some AHP sanctions in Chhattisgarh were also cancelled, and instead the state plans to provide basic services in tenable slums itself, while only resettling those beneficiaries who reside in untenable slums.⁷⁹

The Upgrading Approach: Global and Indian Cases

Upgrading informal settlements may be a better approach to manage India's urban housing shortage and enable housing for all. Upgrading involves physical, social, economic, organisational and environmental improvements in informal settlements, undertaken cooperatively and locally among citizens, businesses and governments. It involves ensuring security of tenure; improving access to basic and services such as water, sanitation, health and education; and supporting housing construction and improvements. It can also include removal or mitigation of environmental hazards, provisions for community management and maintenance, enhancement of livelihoods, and compensation for residents displaced by improvements.⁸⁰ Upgrading is widely undertaken in many cities across the world, and many projects have also been implemented in India.

1. **'Baan Mankong', Thailand:** Thailand has been implementing the nationwide 'Baan Mankong' programme since 2003.⁸¹ Under this programme, a group of households, working together as cooperatives, can negotiate purchases or leases with the landowners of their informal settlement, and upgrade their infrastructure. The cooperatives are required to maintain savings groups to meet 10 percent of the cost, while the rest is subsidised. Each project in the programme took three years, with cooperatives themselves carrying out surveys, and making development plans to upgrade their infrastructure. By 2011, Baan Mankong had been implemented in over 1,800 communities, benefiting some 96,000 households. Beneficiaries have reported experiencing significant improvements in their living and financial conditions. Further, the percentage of the urban poor across the country saw an impressive decline from 39 percent to 9 percent between 1990 and 2010. The programme cost about INR 120,000 per household and has gained attention from observers. The World Bank, for example, has praised its "carefully designed and targeted subsidy, its capacity to detect 'signals of seriousness' on the part of the community, and its capacity to slow down the process of real estate development."⁸²

The Upgrading Approach: Global and Indian Cases

- 2. 'Kampung Improvement Program', Indonesia:** In 1969 the country set up the nation-wide 'Kampung Improvement Program' to upgrade kampungs with infrastructure such as roads, sanitation, schools and clinics.⁸³ Development plans were made with the kampung residents themselves, and the costs and management responsibilities were shared with them as well, substantially reducing the cost to the government. For example, the programme in Surabaya city (1976-90) cost INR 2.8 billion, of which INR 945 million was met by its million-plus residents, costing the government less than INR 2,000 per person.⁸⁴ The programme has benefited over 36 million residents in over 2,000 locations.⁸⁵
- 3. 'Favela Bairro' in Rio de Janeiro, Brazil:** This programme involved informal settlements planning their own infrastructure needs, which was financed and built by the municipality. It covered over 100 settlements,⁸⁶ and beneficiaries are reporting substantially higher satisfaction with basic services than non-beneficiaries.⁸⁷
- 4. 'Programme for the integrated improvement of sub-normal neighbourhoods', Medellin, Columbia:** Implemented from 1993-2000, the programme focused on improving basic services and access to land titles in one-fifth of Medellin's informal settlements. The combination of tenure security and basic services incentivised own investments in housing, and surveys have confirmed improvements in quality of life and community participation among beneficiaries.⁸⁸
- 5. 'The Uruguayan Federation for Mutual Aid and Housing Cooperatives', Uruguay (and later expanded to other parts of Latin America):** Uruguay introduced the legal right to housing in 1968, after which housing cooperatives similar to trade unions were formed, to ensure its enforcement. Under this programme, the state provided loans to these cooperatives to self-construct dwellings. This successful programme has been transferred to many South American countries.⁸⁹

The Upgrading Approach: Global and Indian Cases

6. **Slum Networking Program in Ahmedabad, Gujarat:** Under this programme (1996-2010), 60 slums were upgraded with basic services infrastructure, and were given no-eviction certificates which were valid for ten years. Saving groups were formed to contribute towards project costs, and households saved approximately INR 750-800 per month. Later, households were able to take personal loans, and loan repayment rates were also high. Beneficiaries experienced substantial benefits from this programme, such as improvements in work productivity, health, literacy, disposable incomes, mental well-being and increase in own investments in housing and education.⁹⁰
7. **'Sites and Services' program by the World Bank in Chennai, Tamil Nadu and Mumbai, Maharashtra:** Between 1973-1997, the World Bank financed multiple 'Sites and Services' programmes in various Indian cities. Under these initiatives, basic services and infrastructure such as water and sewage pipelines, streetlights, and internal roads were developed in different sites such as greenfield, brownfield and empty pockets in inner city areas. The sites were divided into smaller plots and sold at subsidised rates to low-income households. Space was also allocated for commerce and social infrastructure. A study in Mumbai and Chennai, 20 years after the programme ended, found that neighbourhoods are vibrant, infrastructure was maintained well, and beneficiaries had constructed multiple floors, many renting them out. In both cities, approximately 143,000 plots had been developed, which benefitted around 1.2 million households, at the cost of only INR 12,000 per household.⁹¹ Although not strictly upgrading, this programme was able to meet the needs of households through basic services and the flexibility to construct as per their affordability over time.

The Case for Upgrading

Upgrading is especially suited to manage the housing shortage in urban India, for various reasons.

Upgrading fulfills beneficiary needs.

The problems faced by slum households are congestion, poor tenure security, and inadequate basic services. Resettlement and redevelopment have fallen short in solving these problems, while worsening livelihoods and access to social infrastructure. However, upgrading existing informal settlements will solve the problems of tenure security and basic services, at the least. Support for self-construction will also nullify the problem of congestion. Remedial interventions for unauthorised housing are improving tenure security and basic services through regularisation, similar to upgrading.

Upgrading allows households to invest in housing as per their affordability.

Bulk spending on housing may not be affordable for slum households, and they typically self-construct incrementally over time, based on the strength of their tenure security and access to basic services. Longitudinal studies using NSSO data have confirmed that improved tenure security through slum notification leads to improvements in access to basic services,⁹² as well as increased investments in housing construction and improvements by 53 percent and 34 percent, respectively.⁹³ Another study in four non-metropolitan cities (Mathura in Uttar Pradesh, Jaipur in Rajasthan, Ludhiana in Punjab and Ujjain in Madhya Pradesh) found that housing prices that slum households were willing to pay depended on basic services such as sewage and streetlight facilities.⁹⁴ Giving households the flexibility to invest as per their affordability also avoids trapping them in housing loans and informal debt, and frees finances to invest in priorities such as

The Case for Upgrading

health and education—this can help promote upward mobility. Such mobility could allow them the means to purchase one of the 11 million vacant homes across urban India,⁹⁵ which are currently wasting away. New housing built for low-income households that is unaffordable, inadequate or unviable will also add to this waste.

Upgrading secures renters and is less likely to have exclusion errors.

Upgrading informal settlements does not require filtering through each and every resident for legal documentation, since its goal is to benefit all residents. Instead it requires communities to take ownership and responsibilities to create savings groups and manage infrastructural improvements themselves. Upgrading especially secures housing for low-income renters who make up 25 percent of slum households. If enumeration of households is required, in cases that require redevelopment due to unlivable housing conditions or resettlement due to untenable land, then efforts to adequately include all should be made, such as through allocation of separate units for renters and multiple households living in single tenements,⁹⁶ and through distribution of identity cards and allotment letters in advance.⁹⁷

Upgrading over three times the households than PMAY-U is cheaper than PMAY-U.

As of June 2021, 11.2 million houses have been sanctioned under PMAY-U, of which 4.8 million have been completed.⁹⁸ The scheme is already projected to cost INR 7,350 billion⁹⁹ even though basic services are to be ensured by the state, and financed using other schemes, such as the Atal Mission for Rejuvenation and Urban Transformation. However, the urban housing shortage in India for 2012-2017 was estimated to be 18.78 million houses¹⁰⁰ and another estimate indicates that there are between 26-37 million households living in informal housing.¹⁰¹ This suggests that the quantity of

The Case for Upgrading

PMAY-U housing is insufficient. Back-of-the-envelope calculations show that upgrading all 37 million households in informal housing through construction of basic service infrastructure and allowing households to self-construct through the BLC subsidy is cheaper than the projected PMAY-U investment and basic services for 11.2 million houses by some INR 710 billion (see Table 8). Some of the informal housing is unauthorised housing, which may not even require the BLC subsidy. Upgrading is by far cheaper and more cost-efficient than PMAY-U in its current form.

**Table 8:
Calculated Savings from
Upgrading over PMAY-U**

Action	Cost in Rs billion (2021-22 prices)
Projected investment for 11.2 million houses under PMAY	7,350
HPEC estimate* for basic services** for 11.2 million PMAY houses	1,270
BLC subsidy for the 37 million households (hh) @ INR 150,000 per hh	3,700
HPEC estimate* for basic services** for 37 million hh** living in informal housing (slums and unauthorized housing)	4,210
Savings through upgrading = (Projected PMAY-U investment and basic services for 11.22 million hh) - (Basic services and BLC subsidy for 37 million hh)	710

HPEC estimates¹⁰² adjusted from 2009-10 prices at 7% inflation rate | ** Basic services include water supply, sewerage, solid waste management, storm water drains, and street lighting | *Calculated for 4.5 persons per households as per Census 2011*

The Quest for Sustainability

Upgrading informal settlements promises affordable, adequate, viable housing solutions for low-income households. However, a number of factors need to be taken into account beginning in the planning stages, to ensure that the benefits of upgrading are sustained in the long-run. Upgrading may also not be feasible at all times, and redevelopment and resettlement projects may be needed due to unlivable slum housing, untenable slum lands, or displacement due to infrastructure projects. The private sector may also continue to be involved in such projects, as well as supply formal affordable housing. These factors are especially important to consider in such types of projects.

Upgrading should be implemented at the city-level, not as piecemeal projects.

Single upgrading project interventions that cover a limited number of slums or involve constructing selected basic services infrastructure, are relatively limited in scope, scale and duration. Upgrading should rather aim to integrate all slums into official urban planning and management and be implemented at the city level.¹⁰³ This has multiple advantages. First, various departments responsible for different types of basic services infrastructure will work together in synergy. Second, it will allow governments to exploit economies of scale, and make upgrading more affordable. Third, policies with better indicators covering larger populations may also make governments more responsive than single projects. Fourth, governments will be able to create comprehensive solutions for slum households and ensure inclusion. For example, in cases of unavoidable relocation of slum households living on untenable slum lands or land earmarked for infrastructure projects, governments can negotiate ‘reblocking’ in nearby slums to accommodate them—or rearranging slum housing to make more space. This space can also be partially used to build small multi-storey housing to accommodate relocated slum households. Another option is “Participatory and Inclusive Land

The Quest for Sustainability

Readjustment”¹⁰⁴ in nearby locations. This involves pooling of land parcels by various private parties, on which governments build basic services infrastructure. In exchange, a portion of the pooled land is given to the government, and private parties receive smaller land parcels, which are now better developed and have higher land values. When done in a participatory and inclusive manner, the newly developed government lands can be earmarked for households who need to be relocated. The possibilities from upgrading being planned and implemented at the city-level far outweigh those of single project interventions, and can enable its sustainability in the long-run.

Design realistic planning regulations initially, and improve and negotiate its compliance in a phased, incremental manner.

During the upgrading process, it is unrealistic to expect informal settlements to adhere to planning regulations such as building by-laws, as such regulations are designed for higher income groups. They are stringent, unaffordable, discriminatory and out of reach for low-income households. Instead, city governments should design realistic planning regulations suited for low-income households while implementing upgrading. To ensure that benefits of upgrading are sustained, and congestion and density in informal settlements are controlled in the long term, governments should negotiate with slum households on complying with more formal regulations over time. For example, households should still be able to build multiple floors, but adhere to certain design principles and not encroach on common areas. An incremental process towards improving and complying with planning regulations is likely to be more sustainable than forcing them from the very beginning. This is especially important in cases of resettlement and redevelopment as well, where housing should be designed to make use and maintenance affordable and accessible, which is not the current case.

Agreement on maintenance requirements, rules and responsibilities

In the long run, the process of upgrading should empower beneficiaries to take over the responsibilities for maintenance of basic services infrastructure as well as local savings groups. They should be able to implement further upgrading interventions, set up local economic development initiatives and livelihood generating opportunities, with minimal external support. For this purpose, maintenance requirements, rules and responsibilities of different stakeholders should be agreed upon well in advance. Maintenance requirements may include periodic inspections, replacement of parts, delivery and quality of services, and mechanism for fee collection. Rules should specify land-use, use of public and common areas, extension of housing units, waste disposal, and procedures for grievances and conflict resolution. Governments need to adapt their administrations, allocate resources to ensure funds are available for maintenance, and train their staff and beneficiaries as and when needed. Beneficiaries should be involved in repairs, cleaning, construction, as well as monitoring of maintenance provided by the government and the private sector. The private sector will also need to learn to work with beneficiaries and collaborate on delivery of maintenance services. Non-government organisations could support training needs and mediate between different stakeholders.¹⁰⁵ Consideration for maintenance is considerably lacking in redevelopment and resettlement projects as well.

Using better indicators to measure success

At present, two types of indicators are used to measure the success of housing schemes—number of units sanctioned and completed—and states are performing as per these indicators. However, these are poor indicators, as they are insufficient in explaining the usefulness of these schemes to beneficiaries. Instead, a variety of short-run and long-run indicators may be employed. Short-run indicators can include provision, adequacy and maintenance of basic and social services

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infrastructure, inclusion of beneficiaries in planning stages, whether housing is designed as per beneficiary needs, employment rates and income post occupancy, affordability of cost of living, and distances from work, schools, ration shops, and public transportation systems. Upgrading programmes have been shown to improve productivity and reduce health problems, and indicators for these should be included as well. Long-term indicators can be used to gauge upward mobility of beneficiaries, and can include, for example, stability or increase in household income, improvement in education rates, and interventions led by beneficiaries themselves. Such indicators would be especially useful in schemes that subsidise the private sector to supply formal affordable housing. If they are used to measure the success of housing schemes, then states will aspire to perform, and consider these parameters right in the planning stages.

Mexico's experience of mass production of affordable housing offers many lessons for India. Between 2001-2012, the Mexican government launched an ambitious effort, similar to PMAY-U, and built around one million houses. However, the housing developments were located far away from employment centers, were of poor quality, and lacked adequate basic services infrastructure; there was also no effort towards maintenance. An investigation of these sites in 2017 found that residents collected water in buckets from tanks, gutters were filled with raw sewage and burst pipes, streets stunk and footpaths crumbled. Inside many homes, roofs leaked, walls were cracked and electrical systems suffered from short circuits, blowing out appliances and in some cases sparking fires. Water and sanitation systems were broken down or unavailable.

The programme cost US\$ 100 billion, approximately INR 7.5 million per house. While investors and developers made huge profits, low-income households were stuck with increasing housing loan payments, living in neighbourhoods that soon turned into slums. Many defaulted on their payments. Although an impressive quantity of housing was built under the programme, it did not fulfill the needs of the beneficiaries, and instead contributed to urban poverty.¹⁰⁶ Mexico has since then considered infill development within cities, and is taking into account infrastructural needs.¹⁰⁷ Mexico's tragic experience brings attention to the perils of housing that does not meet the needs of beneficiaries.

India's PMAY-U effort is commendable, having sanctioned and built more houses than any other previous housing scheme before it. However, developmental goals such as 'slum-free cities' and 'modern apartment buildings' need to take a backseat, and investments should be directed towards the needs of beneficiaries, to enable development. Given the nature of the urban housing shortage, beneficiary preferences to self-construct under BLC and the problems observed with resettlement, redevelopment and housing supplied by the private sector, this paper recommends prioritising upgrading of informal settlements to manage the urban housing shortage and truly enable housing for all.

Conclusion

Upgrading has shown to be beneficial in various international and Indian settings, fulfills beneficiary needs, allows beneficiaries to build as per their affordability, is less likely to exclude households, and is cheaper to implement. Upgrading has been strongly recommended in field consultations¹⁰⁸ and there is some momentum at the policy level towards this approach as tenure security is being granted to households in some states to participate under BLC. Upgrading is the imperative, and PMAY-U should evolve to prioritise this policy approach. 

“Goals such as ‘slum-free cities’ and ‘modern apartment buildings’ need to take a backseat; investments should be directed towards the needs of housing beneficiaries to enable development.”

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