IDENTIFYING AND ADDRESSING HURDLES TOWARDS ADEQUATE HABITAT AND HOUSING FOR ALL

Historic Review, Contemporary Assessment and Forward-looking Recommendations for Urban Housing in India and The Partner States of Odisha, Kerala and Tamil Nadu

german cooperation
DEUTSCHE ZUSAMMENARBEIT

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

IMPRINT

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

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Bonn and Eschborn, Germany

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As at
December 2021, New Delhi

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Design
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GIZ is responsible for the content of this publication.

On behalf of the
German Federal Ministry for Economic Cooperation and
Development (BMZ)

ACKNOWLEDGEMENT

We would like to express our gratitude to all interviewees and facilitators of site visits especially but not limited to: Mr Anupam Mishra (Joint Secretary, Ministry of Housing and Urban Affairs), Mr Mathi Vathanan (Principal Secretary, Housing and Urban Development Department Odisha), Thiru Rajesh Lokhoni (Principal Secretary, Housing and Urban Development Tamil Nadu), Shri U. V. Jose (Chief Executive Officer, Life Mission Kerala), and Shri SM Vijayanand (Former Additional Chief Secretary, Kerala).

Also we would like to thank GIZ and the consortium of GOPA Infra and Adelphi for their trust and resources they provided for executing this study, especially but not limited to: Mr Georg Jahnsen (Project Manager, SUD-SC, GIZ India), Ms Aparna Das (Senior Advisor, SUD-SC, GIZ India), Mr Kiran Rajashekariah (Senior Advisor, SUD-SC, GIZ India), Ms Tora Saikia (Technical Expert, SUD-SC, GIZ India), Mr Arpan Mazumder (Technical Expert, SUD-SC, GIZ India), Mr Nishant Bhatnagar (Junior Technical Expert, SUD-SC, GIZ India), Reinhard Skinner (Consortium Team Leader) and Chetan Vaidya (Consortium Study Supervisor).

CONTENTS

PART I

PART II

PART III

List of Figures

List of Tables

List of Text Boxes

List of Abbreviations

ADB	:	Asian Development Bank
AMRUT	:	Atal Mission for Rejuvenation and Urban Transformation
BLC	:	Beneficiary-Led Construction of individual housing
BMTPC	:	Building Materials and Technology Promotion Council
BSUP	:	Basic Services to Urban Poor
CAA	:	Constitutional Amendment Act
CDP	:	Comprehensive Development Plan
CLSS	:	Credit Linked Subsidy Scheme
CMDA	:	Chennai Metropolitan Development Authority
CO	:	Community Organization | Community Organiser
DCR	:	Development Control Regulations
DMK	:	Dravida Munnetra Kazhagam (political party)
DPR	:	Detailed Project Report
DTCP	:	Directorate of Town and Country Planning
DU	:	Dwelling Unit
DUHS	:	District Urban Housing Society
EC	:	European Commission
ELU	:	Existing Land Use
EIUS	:	Environmental Improvement of Urban Slums 1990
EMI	:	Equated Monthly Instalment
EU	:	European Union
EUR	:	Euro (EUR 1 = INR 78 on June 17, 2019)
EWS	:	Economically Weaker Section
FOIR	:	Fixed Obligation-to-Income ratio
FDI	:	Foreign Direct Investment
FSI	:	Floor Space Index
GDP	:	Gross Domestic Product
GNPA	:	Gross Non-Performing Asset
GoI	:	Government of India
GoTN	:	Government of Tamil Nadu
HDFC	:	Housing Development Finance Company
HfAPoA	:	Housing for All Plan of Action
HIG	:	High Income Group
HH	:	Household(s)
HOT	:	Housing-Oriented Transportation
HUDD	:	Housing and Urban Development Department
HUDCO	:	Housing and Urban Development Corporation
IAY	:	Indira Awaas Yojna
ICPP	:	Inclusive Cities Partnership Programme
INR	:	Indian Rupee
IDSMT	:	Integrated Development of Small and Medium Town 1979

IHSDP	:	Integrated Housing and Slum Development Programme
ISHUP	:	Interest Subsidy for Housing the Urban Poor Scheme, defining EWS & LIG in the context of housing policies for the first time
ISSR	:	In-Situ Slum Redevelopment (e.g. using 'land as a resource' mechanism)
ISSU	:	In-Situ Slum Upgradation (i.e. just providing basic services)
Khatiyan	:	Record of Right (RoR): individual land record certificate indicating inter alia record number, plot number, plot area, names and shares of land rights holders, descriptions of respective rights and, if applicable, of superior interests
LAA	:	Land Acquisition Act 1894
LARR	:	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013
LG	:	Local Government
LIG	:	Lower Income Group
LPR or LPLR	:	Land Pooling and Readjustment, or Land Pooling and Land Readjustment
LVT	:	Land Value Taxation
MBO	:	Member-Based Organization
NRI	:	Non-Resident Indian
NSDP	:	National Slum Development Program 1996
OLHS	:	One Lakh Housing Scheme 1972
JnNURM	:	Jawaharlal Nehru National Urban Renewal Mission 2005
JTT	:	Jagannath Temple Trust
MFI	:	Micro-Finance Institution
MIFA	:	Microfinance Initiative for Asia Debt Fund
MIG	:	Middle Income Group
MHUPA	:	Ministry of Housing and Urban Poverty Alleviation
MMDA	:	Madras Metropolitan Development Authority
MoHUA	:	Ministry of Housing and Urban Affairs
NABARD	:	National Bank for Agriculture and Rural Development
NB	:	Nota Bene / please note
NBFI	:	Non-Banking Financial Institution
NHB	:	National Housing Bank 1987
NHP	:	National Housing Policy 1988
NIUA	:	National Institute of Urban Affairs
NPV	:	Net Present Value
NRY	:	Nehru Rozgar Yojana
O&M	:	Operation and Maintenance
OUHM	:	Odisha Urban Housing Mission
OWSSB	:	Odisha Water Supply and Sewerage Board
PHEO	:	Public Heath Engineering Organisation
PIO	:	People of Indian Origin
PMAY	:	Pradhan Mantri Awas Yojana pucca Decent/durable
RAY	:	Rajiv Awas Yojana

RBI	:	Reserve Bank of India
RERA	:	Real Estate (Regulation and Development) Act 2016
RoR	:	Record of Right
RRY	:	Rajiv Rinn Yojana
SASH	:	Subsidized Aided Self-Help Housing Scheme 1983
SECC	:	Socio-Economic Caste Census
SHASHU	:	Nehru Rozgar Yojana's Scheme of Housing and Shelter Upgradation 1990
SFCPoA	:	Slum Free City Plan of Action
SLNA	:	State-Level Nodal Agency
SPV	:	Special Purpose Vehicle
SRDP	:	Slum Rehabilitation and Development Policy
SSS	:	Sites and Services Scheme
UBS	:	Urban Basic Services Scheme 1986
UBSP	:	Urban Basic Services to the Poor 1990
UDA	:	Urban Development Authority
UIDSSMT	:	Urban Infrastructure Development Scheme for Small and Medium Towns
UIG	:	Urban Infrastructure and Governance
ULB	:	Urban Local Body
ULCRA	:	Urban Land Ceiling and Regulation Act 1976
UN	:	United Nations
USD	:	United States Dollar (USD 1 = INR 70 on June 17, 2019)
TIIC	:	Tamil Nadu Industrial Investment Corporation Limited
TN	:	Tamil Nadu State
TNHB	:	Tamil Nadu Housing Board
TNHUDD	:	Tamil Nadu Housing and Urban Development Department
TNRERA	:	Tamil Nadu Real Estate Regulatory Authority
TNSCB	:	Tamil Nadu Slum Clearance Board
TNUDF	:	Tamil Nadu Urban Development Fund
TOD	:	Transit-Oriented Development
TUFIDCO	:	Tamil Nadu Urban Finance and Infrastructure Development Corporation Ltd.
VAMBAY	:	Valmiki Ambedkar Aawas Yojna 2001
Vanshavali	:	Heredity record: a family lineage diagram that establishes the relationship of the current landholder to the person whose name is on the Khatiyan.
WAT/SAN	:	Water and Sanitation
WB	:	World Bank
WB USD 3.20	:	World Bank poverty measure of 3.20 international dollars per capita per day

Executive Summary

The Ministry of Housing and Urban Affairs, Government of India and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH India, are jointly implementing the Sustainable Urban Development- Smart Cities (SUD-SC) project on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) as part of the Indo-German Development Cooperation. The project is carried out in partnership with the three state governments of Odisha, Tamil Nadu, and Kerala towards the formulation of a policy on housing for all, basic services, planning frameworks, and monitoring of the Sustainable Development Goals (SDGs). SUD-SC also supports three selected smart cities (Bhubaneswar, Coimbatore, and Kochi) in contributing towards concepts of integrated spatial urban development planning.

The purpose of this report is to provide recommendations for improved housing policies to the MoHUA. The report pursues a 'Historic Review' (Part I), a 'Diagnostic Sector Assessment' (Part II), and 'Programmatic Recommendations' (Part III).

Part I. Historic Review

Part I portrays the history of housing schemes in India and in the states of Kerala, Tamil Nadu and Odisha, complemented with a literature review on key themes: housing shortage, affordability, rental housing, land development, finance, foreign direct investment, housing and the economy, employment, income growth and urbanization.

At national level, the government's approach to housing has gradually shifted from that of a 'provider' in the post-independence decades to that of a 'facilitator' after formulation of first housing policy in 1988, to that of a 'regulator' with the formulation of the National Urban Housing and Habitat Policy (NUHHP) in 2007. Housing schemes have changed from being state-led in the post-Independence decades to market-led after the 1990s. This is like international trends of the time where the development discourses shifted from incremental housing and serviced land development projects to exclusive reliance on policy. Also, there has been a gradual shift in governance of housing from center to state governments and local bodies, with housing being a state subject today.

In Kerala, this led to housing development activities implemented by the State and LSGs with the move towards decentralization due to 74th amendment. Kerala's first state housing policy was formulated in 1994 and in 2007, the Kerala Housing and Habitat Policy was launched which focused on urban areas. The latest policy launched in 2011 adopts a rights-based framework to provide "Adequate and Affordable Housing for All". It envisages the state as facilitator, builder and regulator in a definite departure from the earlier subsidy driven approach to housing. However, beneficiaries continue to expect complete financial assistance and the latest schemes for most marginalized like LIFE mission have focused on providing free houses to homeless.

In Tamil Nadu, during post-independence decades the political party DMK's housing policies focused primarily on state construction of housing departing from the national model of state's role as a facilitator instead of a builder. In 1970s, there was a move towards self- help housing and in-situ slum upgrading rather than construction of new houses by the government which began to be seen as more expensive. The Tamil Nadu government adopted the World Bank's approach to affordable housing that paid more attention to cost recovery and provision of land tenure. Over the decades, the Tamil Nadu Slum Clearance Board's (TNSCB)1 activities have come to focus on building large-scale resettlement colonies on the outskirts of cities, a move not favored by the residents when moved far away from their livelihoods. The Draft Tamil Nadu State Housing and Habitat Policy-2016 is the first attempt by the government to develop a comprehensive perspective on urban housing. It emphasizes the need for the government to act as a builder and provider for the poor; and as a facilitator for other economic groups to achieve the objective of housing for all.

In Odisha, urbanization has been lower than the national average, unlike the highly urbanized states of Kerala and Tamil Nadu. In recent years, the state has focused on providing land titles to slum dwellers in a landmark legislation for land

rights of the urban poor. Almost all the Record of Rights (RoR) in the state have been computerized. Odisha introduced the Slum Rehabilitation and Development Policy (SRDP) in 2011, which aimed to develop a 'slum-free Odisha by 2020' and improve conditions of urban poor through in-situ development, provision of tenure security, and by minimizing relocation. To achieve 'Housing for All', the Awaas – Odisha Urban Housing Mission (OUHM) and Housing for All (Urban) was launched in 2015. In 2017, the Odisha state government ordained the Odisha Land Rights to Slum Dwellers Act heralding Odisha as the first state in India to grant land rights to the urban poor. The land rights programme was expanded with a mission called Jaaga Mission or Odisha Liveable Habitat Mission (OLHM) launched in 2018.

Part II. Diagnostic Sector Assessment

Part II analyses key thematic areas of housing in four sections, following the Rapid Urbanism framework2: demand, finance of demand, supply and governance.

Section I – Understanding demand and strengthening households' payment capacity for housing

Finding 1 : India's urbanization process significantly increases the demand for housing, basic services and land.
Finding 2 : For an effective policy, 'affordability' and 'affordable housing price' need to be better defined.
Finding 3 : 'Cumulative regular payments for transportation and housing' is a prudent policy- inferring indicator for affordability.
Finding 4 : Housing projects that strategically integrate with other development interventions have a high potential to expand households' capacity to pay

Section II – Expanding access to affordable housing finance

Finding 5 : Using income multipliers as a rule of thumb for determining housing affordability is not appropriate and contributes to policy failure
Finding 6 : Small loans perform the worst, indicating a need for developing pro-poor housing finance products.
Finding 7 : Expansion of housing finance for EWS and LIG requires access for lenders that serve this market segment.

Section III – Enabling housing supply to effectively respond to the identified demand.

Finding 8 : There is a need to provide basic infrastructure to under-serviced communities, independent from land tenure status.
Finding 9 : 'In-Situ Slum Upgradation' (ISSU) is a useful and necessary for 'In- Situ Slum Redevelopment' (ISSR).
Finding 10 : There is a need to expand housing supply for EWS and LIG households – possibly through adaptations of the AHIP vertical through complementary initiatives.
Finding 11 : There is a need for rental housing; small-scale private landlords appear to be the most promising investee for any public programme.
Finding 12 : Households need adequate 'habitat', not just adequate 'housing', at a large scale to provide inclusive alternatives to slums.
Finding 13 : 'Habitat and housing' and 'urban transport' require deeper integration and alignment – with strong co-benefit potential.
Finding 14 : There is a need for diversification in planning instruments and for nudging the former with regulatory and fiscal measures.
Finding 15 : Heterogenous neighborhoods and differential land pricing are not only a precondition for more equitable cities but also a critical strategy for financing the supply of serviced land.

Finding 16 : The benefit of public housing investments may be maximized with an incremental strategy, effectively bridging between formal markets and community-driven development, mobilizing domestic resources and building local markets and generating employment

Finding 17 : Adequate habitats require and benefit from a diversification in housing options, both increasing and supporting the heterogeneity.

Finding 18 : Climate change mitigation and adaptation strategies require local integration of water, waste, heat, energy, and resilient housing.

Section IV – Enhancing governance to enable a thriving habitat and housing sector, balancing demand, finance and supply

Finding 19 : There is a need for deregulation of development control so that urbanization becomes more efficient, inclusive and sustainable.

Finding 20 : There is a need to improve access to tenure security for all households, considering the 'land tenure continuum'.

Finding 21 : There is a need to remove procedural hurdles to land tenure security.

Finding 22 : Fiscal hurdles constraint access to land tenure, land records and markets.

Finding 23 : There is a need to reduce relocation projects from lands that are de-facto occupied but untenable.

Finding 24 : The current taxation of urban land – under both the revenue regime and the property tax regime – counter major development objectives, including housing production, economic growth, employment generation, resource efficiency, environmental sustainability and socio-economic inclusion and equity.

Finding 25 : A fiscal shift to Land Value Taxation may be the most powerful policy option for expanding land supply and improving housing affordability.

Finding 26 : There is a need to focus subsidies in EWS and LIG households for poverty reduction and market-building, rather than subsidizing MIG households – as the latter tends to distort markets and increase the affordability challenge for everyone.

Part III. Programmatic Recommendations

Part III outlines recommendations that are based on the descriptive review and the diagnostic assessment. The following list – structured in four sections in line with the Rapid Urbanism framework: demand, finance, supply, and governance – provides the recommendations

Section I – Understanding and strengthening households' demand for housing

Recommendation 1: Improve the definition of 'affordability' to enable access to 'adequate habitat and housing'.

Section II – Expanding access to affordable housing finance

Recommendation 2: Consider promoting housing finance products that aid low-income and vulnerable households in managing risk, particularly income and expenditure shocks

Recommendation 3: Consider providing liquidity to financial intermediaries that serve EWS and LIG clients, aiding the building of competitive markets providing access to long- term and low-interest credit

Section III – Enabling housing supply to effectively respond to demand.

Recommendation 4: Provide basic infrastructure in all under-serviced communities
Recommendation 5: Introduce 'In-Situ Slum Upgradation' (ISSU) as a new vertical under PMAY.
Recommendation 6: Promote rental housing, especially through small-scale private landlords.
Recommendation 7: Test the supply of 'adequate habitat and housing' projects that are inclusive, sustainable, resilient and safe (SDG 11).

Section IV – Enhancing governance to enable thriving and inclusive habitat and housing markets, balancing demand, finance and supply

Recommendation 8: Improve tenure security for all, considering the full land tenure continuum
Recommendation 9: Simplify and streamline procedural regulation to improve access to tenure security for all.
Recommendation 10: Consider eliminating fiscal hurdles to tenure security and functional land records and markets.
Recommendation 11: Consider 'paradigm change' regarding untenable and objectionable land.
Recommendation 12: Improve development control to become more efficient, investment- friendly and inclusive of the urban poor.
Recommendation 13: Consider land value taxation (LVT) as a fiscal measure to sustain tax revenues while taming land speculation, guiding investment and promoting employment generation.

Conclusion

Synthesizing and grouping the above findings and programmatic recommendations across the four dimensions of the Rapid Urbanism framework, the study's authors suggest eight distinct thematic areas for consideration as pilot projects, aiming for 'Removing Hurdles towards Affordable Habitat and Housing for All':

DEMAND

1. **Improved affordability definition inclusive of all, inferring the efficacy of policy making.**

FINANCE

2. **Improved access to finance for all,**
   reaching EWS & LIG and nudging with integrated subsidies system.

GOVERNANCE

3. **Deregulation of development control,**
   increasing densities and improving affordability.

GOVERNANCE

4. **Land tenure security for all,**
   eliminating regulatory and fiscal barriers to titling.

GOVERNANCE

5. **Property and land taxation solely based on land value,**
   guiding urbanization and growing the economy.

SUPPLY

6. **'In-situ Slum Upgradation' pilot project,**
   adding a vertical to or complementing PMAY.

SUPPLY

7. **'Adequate (New) Habitat and Housing' pilot project,**
   expanding access rapidly & fiscally responsibly at suitable location.

SUPPLY

8. **'Bottom-up Densification' through 'Small-Scale Private Rental',**
   promoting compact cities, resource efficiency and housing affordability.

The first two initiatives – on demand and finance – apply especially to the national level (e.g. updating PMAY baselines, mandating NHB, allocating resources), but also to the three partner states – Kerala, Odisha and Tamil Nadu (e.g. designing their own policies or aligning housing schemes with financial institutions).

First, improving the affordability definition (see Recommendation 1) is critical for establishing proper baselines that enable the development of low-income housing markets, both for production and finance. It is suggested to focus in understanding payment capacities across income groups and establishing prudent benchmarks in policies and programmes. Table 1 provides a basis for discussion, based on interview results and national and international experience. Furthermore, households' transportation costs need to be considered when estimating affordability. Therefore, locations of housing projects should be well suited else they require additional transportation investments.

Second, integrated housing finance ecosystems (see Recommendation 2, 3 and 14) match households' payment capacity with pro-poor housing finance products, such as long-term lease-to-own contracts, micro mortgages, or loan cycles with client graduation. To develop such ecosystems requires (a) technical assistance for low- risk and affordable housing finance products, (b) liquidity for scaling up emerging pro-poor initiatives, and (c) targeted subsidies for reducing/managing risks and enabling market-based solutions (in complement to the poverty reduction objective).

Further, the three governance initiatives apply especially to the state level; however, findings and recommendations may also apply to the central level, for example for relevant for national scheme design. As a next step, it is important to further assess the demand amongst the partners.

Third, deregulation of development control aids the development of denser and more compact cities, with significant economic, social and environmental co-benefits further reduce the capital required to enter the formal housing market and frees up resources that can possibly be invested in better land (a key constraint to adequate habitats).

Fourth, land tenure security for all (see Recommendation 8, 9, 10, and 11) may be achieved by embracing the land tenure continuum, significantly expanding the policy options for increasing tenure security without causing market distortions or unleashing undue market pressures on the poor, by simplifying and streamlining procedural regulations and by removing fiscal barriers . Lastly, in many cases also a review of related legal bodies and a responsible reform may acknowledge competing interests while maintaining high standards.

Fifth, Land Value Taxation (Recommendation 13) has been identified as a priority area, given its outstanding significance for land supply, municipal revenue, housing affordability, economic growth and environmental preservation. In the light of the SDGs, seeking to inter alia balance economic gains and environmental protection, LVT is highly promising. Therefore, it is recommended to consider a respective initiative in all states.

Last, on the supply side, there is a clear need for complementing the existing pillars of housing policies and programmes.

Sixth, 'In-Situ Slum Upgradation' (ISSU) (see Recommendation 4 and 5) should be considered both at the national level (e.g. adding a vertical to PMAY) and at the state level (e.g. as already happening with the Jaaga Mission in Odisha).

Seventh, new 'Adequate Habitat and Housing' (see Recommendation 7) developments are embedded in larger land management, planning and industrial policies. Such projects may be promoted at the central level. Odisha expressed interest in developing 64 acres (26 hectares) of public land, including a large site of about 40 acres (16 hectares). If a pilot project was able to produce sufficient revenues to acquire land for a successive project – while r realizing other social and environmental objectives – then this would be a major step forward. Similarly, discussions in Kerala indicated interest in developing peri-urban sites due to urbanization. (Further, given that lack of services is not a significant issue (making ISSR and ISSU obsolete), 'Adequate Habitat and Housing' may be prioritized on the supply side in Kerala.) Finally, in TN

collaboration with TNHB and TNSCB would allow to enhance plans for townships and diversify the range of housing prototypes offered there.

Eighth, 'Small-Scale Private Rental' (see Recommendation 6) could contribute to housing supply and to urban densification, and it would be fiscally responsible, provided that subsidies are lower than for ownership housing. Thus, small-scale private rental is suggested as a new initiative, especially at the central level and at the state level.

Eventually, for successful delivery the multiple initiatives will need to be coordinated across government scales and sectors. While the study has compartmentalized complex interdependencies into select findings, programmatic recommendations and – in this forward looking conclusion – tentatively recommended initiatives : for example, an 'adequate habitat and housing pilot project' would not just deliver a safe, resilient, inclusive and sustainable settlement (SDG 11) on the supply side, but also need to accommodate the heterogenous need and demand (e.g. payment capacity, housing prototype, form of tenure), differentiated access to finance across income groups (e.g. EWS, LIG, MIG) and categories of livelihoods (e.g. formal/informal) and assets (e.g. starter prototypes) – as well as encompass an enabling governance framework (e.g. development control). This again will require coordination amongst stakeholders across national, state and local level.

Introduction

Study Context

The Sustainable Urban Development - Smart Cities (SUD-SC) Project

The Ministry of Housing and Urban Affairs and GIZ India are jointly implementing the "Sustainable Urban Development - Smart Cities" (SUD-SC) project. The project is carried out in partnership with MoHUA and state governments of Odisha, Tamil Nadu, and Kerala for formulation of housing policy for all, basic services, planning frameworks, and monitoring of the Sustainable Development Goals (SDGs). SUD-SC supports three selected Smart Cities (Bhubaneswar, Coimbatore, and Kochi) in contributing towards concepts of integrated spatial urban development planning.

An important objective is to create improved enabling framework conditions for promoting sustainable urban development . SUD-SC has commissioned a housing study with the objective of (i) reviewing the history of the sector since 1988, (ii) diagnosing the current state of the sector, and (iii) making programmatic forward-looking recommendations for how to inform adaptations of the housing policy.

Description of the Assignment

The study analyses housing policies of the central and state governments with a focus on demand, supply and economic effects of the housing sector between 1988, when the first national housing policy was produced in India, to the present day, extrapolating to the future as far as feasible. As an introduction there will be an overview of urbanisation trends over the period in question for the national, state and city level, limited by data availability (especially at the local level where many interviewees would provide anecdotal evidence but no hard data).

Study Objective

It is the intention of the SUD-SC project to provide recommendations for improved housing policy to MoHUA.

An analysis of experiences, success and failures of the current state of sector is fundamental. In the conclusion, the report includes tentatively recommended initiatives that may be detailed further under separate assignments.

Structure of the report

The report is structured in three main parts and a conclusion.

Part I reviews housing policies at the central and state levels outlining key debates.

- First, the research broadly looks at historic and contemporary housing policies and programmes of the Government of India at the national level. It covers from Independence period, especially since 1988 when the first national housing 'policy' was produced to present day.
- Second, the review covers the history of policies and programmes in state of Kerala, Tamil Nadu and Odisha.
- Finally, it discusses the current debate and portrays point of views and facts on the sector and key themes, such as the interlinkages between housing, economy and employment.

Part II provides a diagnostic assessment of the housing sector.

- Section I assesses housing demand, households' payment capacity for housing, and options for strengthening the latter.
- Section II discusses need and potential means for expanding households' access to affordable housing finance.
- Section III analyses housing supply and options effectively responding to the identified demand.
- Section IV discusses sector governance with the objective of balancing demand, finance and supply in order to support a market-based approach through regulations, taxation and targeted investments and subsidies.

Part III outlines programmatic policy recommendations to enable access to adequate habitat and housing for all.

- The recommendations inform policy reform and pilot projects outlined in the final conclusion and may be considered a potential starting point for any further work.

A final, forward-looking section concludes findings and recommendations in a set of pilot projects that are tentatively recommended for further consideration.

Methods

In the scope of a rapid sector assessment, the team pursued a literature review, semi-structured interviews and field visits to each of the focus cities in the three states.

Literature review

The national consultant reviewed the history and current state of housing policies and programmes in India, using primary data (e.g. original policy documents) and secondary data (e.g. earlier publications and reviews). The international consultant supported the national

colleague and, where appropriate, added an international experience (e.g. case study) or argument (e.g. from literature).

Furthermore, desk research, particularly on international best practices and historic national case studies complements the approach, to provide context to forward-looking recommendations. The study team collected specific data from statistics, reports, interviews, or case studies. Where this data is not readily available for collection, the study team relied on qualitative accounts during interviews and site visits.

The following is a list of data searched for by the study team and, as such, also requested to SUD-SC, GIZ and the Indian partners at national, state (TN, Kerala, Odisha), and city (Coimbatore, Kochi, Bhubaneshwar) levels:

- **Demographics.** Urban population, slum population, housing deficit, etc.
- **Demand.** Household income3 and/or payment capacity for housing and related expenditures, especially transportation and services/utilities but also operation and maintenance, property tax, etc.
- **Finance of demand.** The product terms of typically available housing finance schemes/products, particularly (1) interest rates and (2) amortization/repayment period; further, eligibility criteria. Useful products include market-based mortgages, housing microfinance, microfinance and subsidized schemes, if any.
- **Supply.** The prototype, location and cost of formal and informal housing supply (price points and prototypes): e.g. formal private-sector-driven land and housing (bottom of the market only); informal market (housing and land) and the price points of various government interventions; location data on where (especially new) housing developments are located and how they are connected to the city (e.g. transportation to or nearby socioeconomic opportunities, especially employment, education, health).

Semi-structured interviews

The study team interviewed high-level national, state and city government to learn from their experience and point of view. In complement, the team further studied from non- government actors from the private, financial and civic sector – e.g. architects (supply), private lenders (finance), NGOs supporting community groups (demand) – in order to identify the options and preferred role that government ought to play to enable stakeholders in the best way through regulation, taxation or public investment. For a list of interviewees refer to Annex 1.

The study team has been asked not to attribute content to any interviewee to provide all stakeholders the opportunity to speak freely. Furthermore, the interviewers typically started interviews by asking the following larger-picture questions deliberately phrased in an open way to not bias the interviewees, but to provide them with the opportunity to share their natural throughts.

What are the key housing issues, in particular: what are the key achievements during last 5-10 years; major challenges faced today; key visions until 2022, and next steps to address these, considering opportunities and risks?

Interacting with the interviewee and reacting to his/her responses, the study team may then ask follow-up questions to collaboratively explore these topics further in the national and international context. The Rapid Urbanism framework (briefly portrayed below) provides quick entry points for further discussion. Issues that warrant further clarification include but are not limited to:

- Affordability as a concept in the context of policy efficacy4.
- Any gaps in the verticals of PMAY, such as 'in-situ slum upgrading' (where land cannot be used a resource) or 'rental housing' (as an alternative to ownership).
- Opportunities for mobilizing "land for all" at adequate locations, providing access to social and economic opportunities in cities.

Last, potential recommendations are discussed and reality-checked, as they may emerge throughout the study.

Field visits

Visits to informal and formal settlements as well as historic housing schemes (e.g. sites and services, upgraded slums, new affordable housing) provide further information on 'what' and 'how to' of urban housing today. Considering the short timeframe and availability of partners, the study team visited public housing schemes, informal settlements and private sector housing. While field visits were primarily intended as reality check, visual materials as well as community knowledge collected during site visits is used to enrich the final report as appropriate. Field visits are also included in Annex 1.

[3]As far as this is not available, the study team will rely on the official national definition of income groups (e.g. EWS, LIG, MIG) and/or international measures (e.g. World Bank USD 3.10 poverty measure that is suitable for urban areas).

Rapid Urbanism as a guiding framework

The consultant uses Rapid Urbanism as an integrated framework, guiding the diagnostic analysis of the sector and the framing of programmatic recommendations. Rapid Urbanism is a political economy and spatial cum temporal model that is geared towards analysing inter- dependencies between housing, land, infrastructure, transportation, livelihoods, environment and towards structuring respective programmatic recommendations. Figure 1 illustrates Rapid Urbanism's understanding of potential causes and effects of unaffordable land, infrastructure and shelter as a problem tree:

The causes and root causes of unaffordability are structured around four sectors: demand, finance, supply and governance: (i) weak demand as low disposable income due to, for example, low earning, high cost, and high risk/vulnerability; (ii) inaccessible affordable finance due to, for example, lack of eligibility, prohibitively expensive interest rates and lack of long- term credit; (iii) unresponsive supply due to, for example, high price, poor location, unsuited housing prototypes; (iv) ineffective governance due to, for example, poor legal frameworks, fiscal or investment policy.

Regarding the effects, housing unaffordability exposes slum populations, unable to access adequate housing, to one or more of the five housing deprivations – non-durable material,

insufficient living area, inadequate access to water and/or sanitation, and lack of tenure security

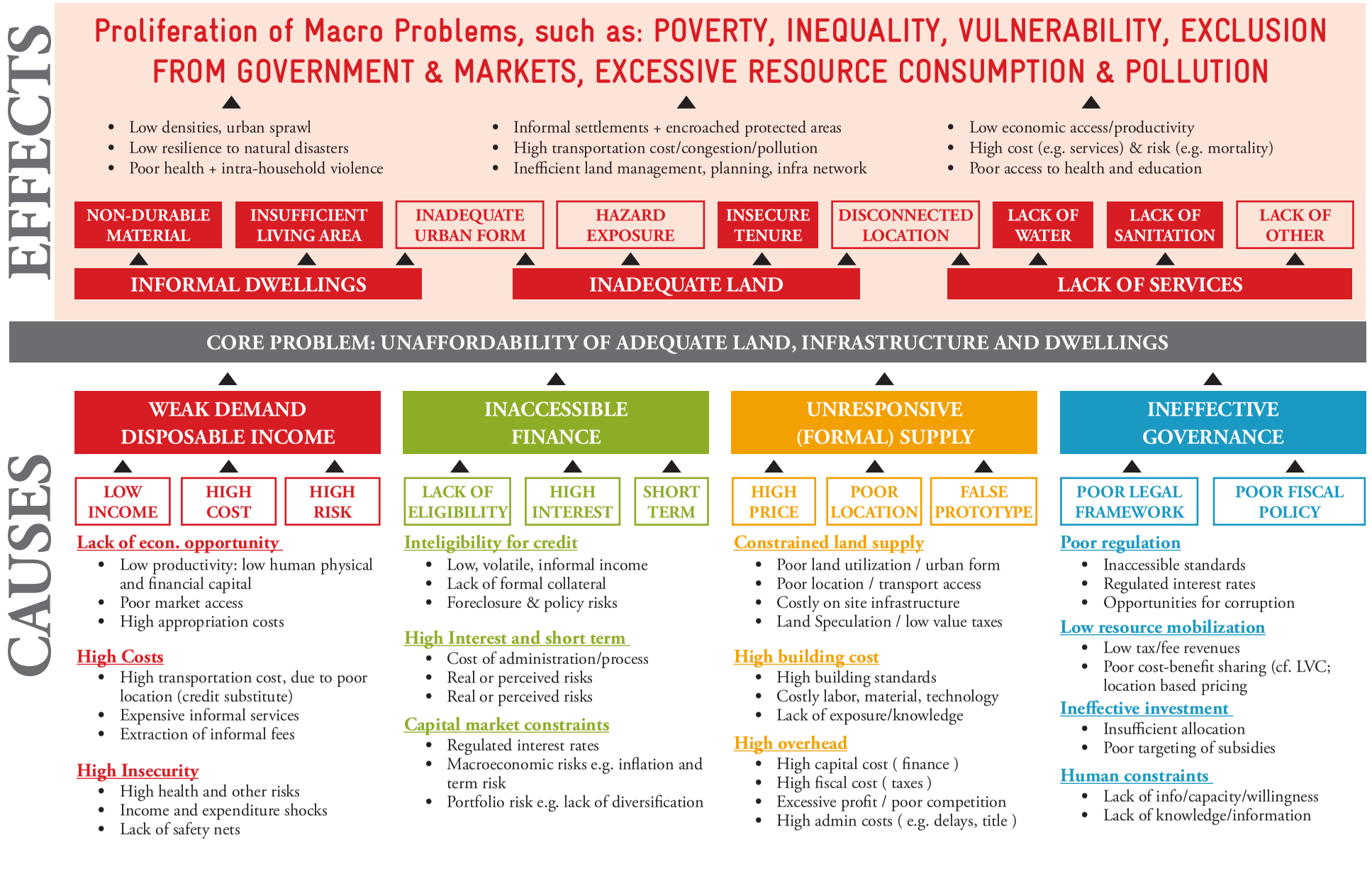
– and to other interrelated issues, such as disconnected sites that are developed with low-density sprawl, exposed to hazards, and lack of education and health amenities. In turn, this set of housing deprivations results in macro problems, including poverty, inequality, vulnerability, exclusion from government and markets, excessive resource consumption and pollution. This is a vicious cycle of housing where the effects aggravate the root causes.

In response to the causes, preventive housing policies can be structured addressing any combination of the causes and root causes and thus reducing households' affordability gap. Last, in response to the effects, curative housing policies can address substandard land, infrastructure and housing as well as the macro-problems.

Annex 2 provides further details and resources on the framework.

[4]"Policy efficacy' leads to achieving larger development objectives (such as social equity, economic growth or environmental protection), beyond just housing production or affordability.

Figure 1: Rapid Urbanism's (model) problem tree for unaffordable land, infrastructure and housing



PART I

National Housing Policies in India

The national policy approach to housing can be traced through the various Five-Year Plans (HSMI-HUDCO Chair-NIUA, 2017, p. 71). Annex 3 provides the full details through the decades. Following is a summary for the period from the preparation of first housing policy that coincided with the liberalization of Indian economy and structural readjustment internationally.

Over the past decades, the Government focus in housing has gradually shifted, from that of a 'provider' in the post-Independence decades to that of a 'facilitator' after the formulation of the first housing policy in 1988 (Hingorani, 2011; Rao, 2004; Mukherjee et al., 2016; Wadhwa, 2009; Tiwari & Rao, 2016). Consequently, housing schemes have changed from being dominantly state-led to being relatively more, market-led. Similarly, from a focus on subsidies in the initial decades, today the focus lies more on multi-stakeholder partnerships[5] in the implementation of housing schemes. This is in line with international trends where development discourses shifted from incremental housing and serviced land development projects to an exclusive reliance on policy. However, this withdrawal by the state in favour of the market is also seen critically in the contemporary international debate. As an example, in an introduction for the ADB, Kessler & Steinberg have argued that markets tend to fail in providing to low-income and economically-weaker households (2011, p. 89).

India has seen three national housing policies so far and numerous schemes and programmes. Within the context of structural readjustment[6], the first National Housing Policy was framed in 1988 as an integrated policy on development of the housing sector. The Habitat II UN Conference held in 1996 put forward the theme 'Adequate Shelter for All'. In this context, the second National Housing and Habitat Policy was drafted in 1994 and revised in 1998 with the important clause of 'habitat' added to focus on the need for adequate services and social infrastructure. The third national housing policy, the National Urban Housing and Habitat Policy (NUHHP) was drafted in 2007 and emphasized the connections between 'housing' and 'habitat' (defined in the urban context) even further. It viewed housing as a tool of productivity, equity, safe environment, pro-poor delivery of civic services and shelter as well as employment opportunities and has emphasized bottom-up planning. Eventually, in 2012 the Technical Group on Urban Housing Shortage TG-12 estimated a shortage of 18.78 million housing units, with 95 percent falling into the LIG and EWS categories (MoHUPA, 2012).

In 2015, the Prime Minister's Housing for All (PMAY) scheme was launched, composed of four verticals (MoHUPA, 2016):

i. **Beneficiary-Led Construction (BLC)**, subsidizing adequate construction materials for a new house or home improvement – while households are assumed to contribute their labour (or hire labourers);
ii. **In-situ slum redevelopment (ISSR)**, providing basic services (and land tenure security) in informal communities;7
iii. **Affordable Housing in Partnership (AHiP)**, building PPPs for housing production; and
iv. **Credit-Linked Subsidy Scheme (CLSS)**, providing a down payment subsidy to households eligible for credit (equivalent to the NPV of government contributions required for an interest rate subsidy).

Kumar and Kundu (2018) note that PMAY marks a strategy shift towards 'formalisation' of housing through central heavy funding and large subsidies. Further most PMAY verticals, except for ISSR, have brought housing construction completely in the private domain. Further, Bhan (2018) points out PMAY's departure from the Rajiv Awas Yojana (RAY) scheme, in which incremental construction and slum upgradation had been removed for the first time, with a new focus on building complete houses. Lastly, the mandatory requirement of adequate documentation has been seen to prevent people from

[5]For example, the current Affordable Housing in Partnership scheme has 3 models:
(1)Projects undertaken on land owned by the central government/states/UTs/ULB/parastatals and executed by state, ULB, parastatals (2) Projects undertaken in PPP mode where the states/UTs/ ULBs/parastatals provide land and/or other facilities/incentives and private sector conceive and execute the project using its financial and technical resources (3) Projects undertaken on private land implemented by developers/promoters wherein states/UTs/ULBs/parastatals offer incentives/facilities like extra TDR/FAR/FSI and/or other concessions.
[6]The Washington Consensus provided a set of 10 economic policy prescriptions considered to constitute the "standard" reform package.

availing the scheme (Inclusive Cities Partnership Programme, 2018).

Today, as per the PMAY (U) Website8, the total urban housing demand is estimated to be 12 million units. Out of this 8.5 million have been sanctioned under PMAY (U), out of which only 27 percent have been completed while 23 percent are already occupied. Further, out of a total investment of INR 5.05 lakh crores, central government has contributed INR 51.162 crores.9 Across verticals, the houses sanctioned under BLC, AHP, ISSR and CLSS were 56, 31, 4 and 8 percent respectively (with 2 percent already planned under RAY). Overall, BLC has made significant progress, as public institutions find it relatively easy to deal with households with access to land in providing housing assistance – while ISSR's progress has been slow, due to legislative and administrative difficulties in establishing land titles (Kundu & Kumar, 2018). Furthermore, the take up of CLSS amongst EWS and LIG households has been modest, due to the eligibility criteria (e.g., formal tenure and financial history of borrower), lack of affordability to repay even heavily subsidized loans and the location of their homes. In 2019, CLSS was opened for MIG households as well. Lastly, Public-Private Partnerships under the AHiP verticals are seen to focus on middle-income households where profits are larger, but to largely exclude LIG and especially EWS households, since a commercially viable standard unit (seen as not risking the marketability of adjacent MIG units) tends to be unaffordable to LIG and EWS.

Housing is a State subject in India (HSMI-HUDCO Chair-NIUA, 2017). The last seven decades have seen the shift in governance from centre to state governments and local bodies. The devolution of powers to local bodies through the 74th Constitutional Amendment in 1992 provided them greater fiscal autonomy and recognition of their legal status, with similar movements in other Asian countries such as Indonesia, Philippines, Thailand and Vietnam around the same time (Kessler & Steinberg, 2011, p. 92), with possible challenges due to under- developed organizational structures in local governments. Kundu and Kumar (2018) contend that this caused cuts in central assistance (p. 14), adversely affecting the delivery of housing to the urban poor.

[7]Note that the first two verticals are interlinked in the sense that home improvements under BLC should only be performed in areas that have access to basic services that, if not available, would be provided through ISSR. Conversely, slums that require upgrading may contain large number of houses that require improvement.

[8]https://pmay-urban.gov.in. Accessed on August 27, 2019

[9] t was however unclear what is exactly included in the total amount

Housing Policies in Kerala

Kerala is the third most urbanised state in India having experienced an urban population growth from 29.96% in 2001 to 47.72% in 2011 (Census, 2011). The latter compares to 31 percent at country level. The aerial reclassification of rural areas to urban, based on a shift in occupational structure, contributed to high urban population growth of 83.20 percent between 2001 and 201 (GoK, 2012). Moreover, the pattern of urbanisation in Kerala is seen as a rural urban continuum with no distinction between urban and rural areas, similar to the desakotas10 in Indonesia. The state is noted for its unique settlement pattern with independent houses in individual plots scattered across habitable areas. This has led to an urban spread, that is urbanisation due to an increase in urban areas and urbanisation of peripheral areas of existing urban centers instead of concentration of population in these urban centers. The population, thus, is distributed uniformly across the state with lower population density in urban areas and higher rural population density than the rest of India (GoK, 2012).

The share of urban population with ownership of houses is higher. This may possibly be explained by lower population density in Kerala's urban areas, compared to India's average, indicating a less competitive land market and less exclusion of the urban poor. The share of slum population within urban population in Kerala (1.3 percent) is also much less than the country average (17.4 percent) (Census, 2011). Moreover, slums in the state have better infrastructure and ownership rights when compared to other cities. The housing requirements within the state are higher than the national average with 336 houses for every 1000 persons, as compared to the national average of 273 houses. The average size, quality and investment in each house is higher than the national average, and so is the cost of construction due to higher cost of materials and labour in the state.

Kerala has the highest Human Development Index (0.814) in India (much higher than the average in the country) with high social development indicators such as life expectancy, infant mortality, literacy rate, standard of living etc (GoK, 2012, p. 74). However, there is a significant amount of unmet demand in the state. According to the 13th Plan Working Group Report on Housing (Kerala State Planning Board, 2017), there are a total of 4.32 lakh houseless families in the state. 53 percent of those have land but are houseless, 37 percent are landless and houseless as well and the remaining 10 percent have houses that are incomplete. The worst affected are those belonging to underprivileged sections of society such as the Scheduled Tribes.

Kerala Housing Agencies

Initially housing in the state was limited to schemes of Central government only. Over time, housing development activities were initiated by State and local self- governments, with the move towards decentralisation during the Ninth Five Year Plan (1997- 2002). The Total Housing Scheme (1998) was launched with a whole sector development approach and the LSGs as the implementing agencies, Today, there are more than 20 agencies which implement housing programmes for Kerala. Some of them are Kerala State Housing Board, Kerala State Co-operative Housing Federation, Kerala State Development Co-operation for SC/ST Development Department and the Rural Development including Kudumbasree which implements Ashraya Housing Scheme for the destitute etc. Kudumbasree, one of the largest women-empowering projects in the country, was launched by the Government of Kerala in 1998 for poverty eradication through concerted community action under the leadership of LSGs and in partnership with the state government and NABARD. Non-governmental agencies such as Costford and Habitat Technology Group, co-operative societies, Kerala Police Housing and construction corporation etc. have also helped in constructing houses.

Other Departments like Scheduled Tribe Development Department, Scheduled Caste Development Department, Sainik Welfare Housing Department, Directorate of Minority Welfare also implement various affordable housing schemes.

[10]Desakota is a term used in urban geography to describe areas in the extended surroundings of large cities, in which urban and agricultural forms of land use and settlement coexist and are intensively intermingled. It comes from Indonesian desa "village" and kota "city".

Activities of the Housing department are implemented through the Kerala State Housing Board. Kerala State Nirmiti Kendra (KESNIK) is an organisation set up in 1989 to provide low cost housing solution to the public, especially for economically weaker sections and to build earthquake resistant houses and post-disaster rehabilitation houses.

Kerala Housing Policies

Kerala's first State Housing Policy was formulated in 1994. In 2007, the Kerala Housing and Habitat Policy was launched focused on urban areas. It was formulated in the background of the national report submitted by the Working group on Urban Housing and Urban Poverty focusing on Slums for the 11th Five Year Plan (2007-2012) that highlighted the unmet need for urban housing, especially among the poor who live without basic services like safe drinking water and sanitation. The policy promoted EWS-LIG housing as part of corporate social responsibility and the private sector was given incentives to invest part of the profits for housing needs of the poor. The policy also stated that the government will initiate setting up of a 'Bhavan Nidhi' from NRIs and corporates of Kerala for investment in EWS- LIG housing projects. An important component of the policy was setting up of a Housing Risk Fund to cover repayment risk on loans up to Rs.1 lakh provided by HFIs to EWS-LIG (Wadhwa, 2009).

The latest policy launched in 2011 adopts a rights-based framework to provide "Adequate and Affordable Housing for All". It envisages the state as facilitator, builder and regulator in a definite departure from the earlier subsidy driven approach to housing. It recognized the need for cost effective, environment friendly and energy efficient technology, relying on locally available building materials. Considering the huge role played by remittances in the development of the State, the policy also promoted flow of funds to the housing sector from non-resident Indians (NRIs), people of Indian origin (PIOs) and international and national financial institutions, etc.

Text Box 7: Brief Timeline of Housing Schemes & Policies – Kerala

- 1950 Community Development Programme sponsored by Government of India which helped implement village housing scheme in the state
- 1970 Kerala State Co-operative Housing Federation Ltd established as the apex body for financing the Primary Co-operative Housing Societies. Provides financing facilities for the affiliated primary co-operative housing societies (PCHS) for the construction of houses, repair/extension.
- 1971 Kerala State Housing Board set up which launched loan-subsidy housing EWS programs
- 1972 M.N Laksham Veedu Punar Nirmana Padhathi (One Lakh Housing scheme) considered a success for low-income housing in the State. 8709 houses constructed.
- Housing schemes for SCs and STs were taken up in a major way integrated with the centrally sponsored employment generating schemes of NREP, RLEGP, etc.
- 1983 Subsidized Aided Self-Help Housing Scheme (SASH)
- 1985 Indira Awas Yojana launched
- 1989 Kerala State Nirmithi Kendra (KESNIK) established to actively engage in the field of housing and habitat development through the propagation of Cost Effective and Environment Friendly (CEEF) technology
- 1990 Kerala Police Housing and Construction Corporation Ltd established with the objective of taking up construction activities for the police, fire and rescue services prisons, vigilance and Anti-corruption Bureau
- 1991 Rajiv One Million Housing Scheme for all sections by the State Housing Board
- 1994 Kerala's first State Housing Policy
- 1996 Mythri Housing Scheme for EWS under which 1,00,000 houses proposed to be built per annum
- 2007 Kerala Housing and Habitat Policy
- 2007 EMS Housing Scheme, Housing for All
- 2014 Kalavaras Scheme under the Nirmithi Kendra to provide subsidized building materials
- 2011 Kerala State Housing Policy

Kerala Housing Schemes

Public housing schemes began in Kerala in the early 1950s with village housing schemes implemented through the centrally sponsored Community Development Programme. Agricultural worker-tenants were granted land ownership rights as part of post-Independence land reforms (Rao, 2004, p. 3). Kerala is one of the few states to strictly administer the Land Ceiling Act 1963 which envisaged the distribution of land from landlords to poor people. No individual could own more than 12 standard acres. The One Lakh Housing Scheme (OLHS) 1972 was designed uniformly across the state without taking geographic or climatological considerations into account or the diverse needs of beneficiaries. The central housing scheme IAY launched in 1996 provided flexibility to beneficiaries in planning according to climate, culture and community as it did not have a prescribed type design. But it did not consider the local materials and wages (Nair, et al., 2005). The Mythri housing scheme (1996) implemented by state government also provided flexibility to beneficiaries, but its impact was low due to limited access to affordable technology. The earlier Subsidized Aided Self-Help Housing Scheme (SASH) 1983 had been able to overcome this by involving voluntary agencies in the building process while providing flexibility in the design process with the beneficiaries free to revise the type designs or adopt new designs.

BSUP, RAY & PMAY are the current programmes by the central government focused on urban housing. The monitoring and formulation of projects under these programmes has been taken up by Kudumbasree under the administrative control of Local Self Government Department. In Kerala, Thiruvananthapuram and Kochi Corporations were identified for implementing BSUP. The fund sharing pattern for Thiruvananthapuram is 80:20 by central and state governments respectively. For Kochi Corporation, the sharing pattern is 50:50. Out of 50% of state share, 30% would be borne by state government and the balance amount, after deducting beneficiary share, would be borne by the respective ULBs. The BLC vertical of PMAY is proving successful in the state where 95 percent of the housing is currently self-built. Under the scheme, a family having at least one cent land is given INR 4 lakhs as a grant for constructing a new house, with the minimum area of house required to be 320 square feet.

Nair et al. (2005) contends that the 1972 scheme OLHS failed to create a sense of ownership and pride in the beneficiaries who were not directly involved in the building process and in some cases, were also shifted from their original location to the newly built houses. It led to a dependence on the government rather than self-reliance with the expectation that the government would take care of the repair and maintenance over time. Under SASH, IAY and Mythri, the beneficiaries displayed more attachment to their houses as they were involved in the building process. In keeping with the central government approach, the state government role changed from that of a 'provider' to the 'facilitator' over the decades. However, the beneficiaries continued to expect complete financial assistance. At the same time, factors such as the requirement of an initial investment in Mythri and the minimum criteria for ownership of 80 sqm land in IAY and SASH prevented the most marginalised from availing the housing schemes. As a result, the latest schemes for the marginalised such as LIFE (covered in the next section) have focused on providing free houses to the most marginalised, that is, homeless and landless, which is an expensive approach for the government.

The Approach Paper to 13th Five Year Plan (2017-2022) proposes building a Nava Keralam (new Kerala) through 4 missions – Haritha Keralam (nature-friendly agriculture), Aardram (people-friendly health facilities), Comprehensive Educational Rejuvenation Programme (high-quality school education) and Livelihood Inclusion and Financial Empowerment (LIFE). The next section looks at the LIFE mission providing housing to landless and houseless population of the state.

Text Box 6: Housing Schemes – Kerala

- Kerala State Housing Board Schemes:
- 2007-08 M.N. Laksham Veedu Punarnirmana Padhathi (One Lakh House Renovation Scheme) was approved for the renovation of houses constructed under "One Lakh Housing Scheme"11
- 2008-09 Innovative Housing (Pilot) Scheme 188 houses constructed, 157 allocated. Aims to provide flats on rental basis to the poor urban workers who are increasingly displaced from the city limits or from their work places.
- 2013-14 Grihasree Housing Scheme – Offers financial assistance as Government subsidy at the rate of INR 2,00,000 per house for the construction of houses in EWS/LIG category in their own land with the support of Voluntary Organisations. Capital subsidy for 525 houses
- Saphalyam Housing Scheme - Set up of support services and infrastructure facilities for the construction of houses for BPL category. Unit cost of 280 sq. ft 3.50 lakh (2 lakh Govt subsidy, 1 lakh loan from HUDCO, 25,000 voluntary contribution from NGO and 25,000 beneficiary contribution). 240 flats under construction
- Suraksha Housing Scheme provides financial assistance for the houseless EWS in both urban and rural areas. Under this Scheme, assistance will be given to persons owning at least 2 cents of land to construct a house. The scheme will have an option to seek association from Voluntary Agencies and NGOs to assist in house construction.
- Scheduled Tribe Development Department provides financial support to houseless Scheduled Tribes for construction/repair of houses. Beneficiaries are provided INR 3,50,000 for construction of house.
- Scheduled Caste Development Department implements programmes for vulnerable communities like Vedan, Nayadies etc whose annual income is below INR 50,000. INR 7.25 lakh is provided for purchase of land and house.
- Sainik Welfare Housing Department provides house building grants to disabled ex-servicemen before completion of terms of engagement, recruits, war widows and widows of Jawans who died in harness. The beneficiaries' annual income limit is INR 1.5 lakh, and the grant amount INR 1 lakh.
- Directorate of Minority Welfare implements a scheme to construct houses for divorced/abandoned women and widows who belong to minority communities. The beneficiaries should have at least 2 cents of land in her name for construction of houses. The departmental assistance is capped at INR 2.5 lakh.

[11]Financial assistance for reconstruction of dilapidated twin houses into single units and reconstruction of single houses, is implemented through the Board. The Government subsidy was INR 75,000 for General Category, Rs.1,00,000 for SC Category and Rs.1,25,000 for ST category. Subsidy is contributed equally by the Kerala State Housing Board and the Local Self Government Departments.

The Livelihood Inclusion and Financial Empowerment Mission (LIFE)

LIFE is a state sponsored comprehensive housing scheme for landless and homeless families in the State. Its mission is to provide safe housing to nearly 4.30 lakhs of landless in Kerala within a period of 5 years. Priority is being given to coastal population, plantation workers and those who stay in temporary shelters in government lands. Though the scheme tends to hand over readymade houses to the beneficiaries, it attempts to empower them through their active participation in the maintenance of housing complexes (Government of Kerala, 2019).

The first stage of LIFE completed the construction of 55,000 already identified houses lying incomplete from previous schemes. The second stage involved identifying 1,73,000 families who do not have a pakka (durable) house. Of this, 98,000 were found to be eligible12 and 90,000 houses opted to start construction. 25,000 houses have been finished as of date. For families with land, INR 4 lakh are being given to beneficiaries: 2.2 lakhs through INR 4000 Crore loan from HUDCO, with the capital to be repaid by the panchayat while the interest will be borne by government (zero interest subsidy). INR 80,000 of the total is to be paid by the panchayat while INR 1 lakh is the state share. If house costs more than INR 4 lakh, the beneficiaries can avail additional schemes such as 15 percent cement subsidy, discount on construction materials or wages under Mahatam Gandhi National Rural Employment Guarantee Act 2005 which guarantees 90 days of work annually.

The third stage of the LIFE mission involves identification of landless families. 3.3 lakh families have been identified and the verification process is currently taking place. 85 7-storey apartment complexes with 10,000 units in total are envisaged to be built on public land for the identified beneficiaries. 90,000 more households are envisioned to be built for which land needs to be purchased. A 7-storey pilot project with 217 houses has been built under the LIFE mission at Adimali wherein the property title is with the local panchayat while the beneficiaries pay monthly operation and management fee of INR 750, while rent is free. Based on the feedback of the residents who do not favour lifts, the next complexes are envisioned as only 4- storey complexes. Officials of the Local Self Governing Department, which oversees the project, say that the complex cost is INR 26 crore, around INR 11 lakh for each 500 square feet house (Philip, 2019).

The current LDF government is also in the process of implementing a massive drive of distributing land titles to the landless poor. The target is to distribute titles to one lakh households and so far, 75,000, households have reportedly benefitted.

[12]1 ration card per house with maximum annual income 3 lakh and maximum land of 25 cents. Private car-owners are not eligible.

Housing Policies in Tamil Nadu

According to the 2011 Census, 44% of the total population in Tamil Nadu was classified as urban and in 2011, this proportion had increased to 48.5%, doubling over 60 years. Tamil Nadu tops the list of urbanized states with 50% of the population in urban areas. Forecasts indicate that by 2026 about 75% of the population of Tamil Nadu will live in cities (H&UDD, 2018).

Urban housing shortage in the state of Tamil Nadu is estimated to be around 1.25 million, of which 50 percent is in the urban areas (MoHUPA, 2012). According to MoHUPA (2012), the housing shortage in urban areas in Tamil Nadu was at 28.24 lakh and accounted for about 15 percent of the total housing shortage in India. Unlike Kerala, the ownership rates in urban areas in the state are low at 61 percent compared to the national average of 74 percent (Census 2011). Unaffordable property prices have led to cities such as Chennai and Coimbatore seeing higher than average number of households in rentals (HSMI-HUDCO Chair-NIUA, 2017).13 Housing shortage in Tamil Nadu has also increased further because of increase in congested and obsolescent houses during 2001-11. Despite declining household size and high number of houses getting added, congested houses have nearly doubled in the state and increased more sharply in Chennai and Coimbatore.

Tamil Nadu Housing Agencies

Tamil Nadu Housing Board (TNHB), Tamil Nadu Slum Clearance Board (TNSCB) and Housing Co-operative Societies are the major housing delivery agencies in the public sector. In 1961, the state government enacted the Tamil Nadu Housing Board Act, to establish TNHB under the Housing & Urban Development Department (H&UDD) by absorbing the City Improvement Trust (CIT) that was functioning as part of the Corporation of Madras. In 1956, the Slum Areas (Improvement and Clearance) Act was passed and in 1972, the Central Scheme for Environmental Improvement in Slum Areas was launched. Against the backdrop of these national schemes, the Tamil Nadu Slum (Improvement and Clearance) Act was passed in 1970 as the first legislative attempt in Tamil Nadu to guarantee slums minimum protection from evictions, requiring the state to declare existing slums and improve them. Based on this act, the TNSCB was constituted by bifurcating TNHB. The role of providing housing for EWS and LIG was, thus, entrusted to TNSCB while TNHB has focused primarily on providing housing for MIG and HIG categories.

Today, TNSCB has become the principal agent for relocation and rehabilitation of slum dwellers or those evicted under various environmental and beautification drives. Yet, TNSCB has not declared any slums for over 30 years since 1985 (Venkat & Subadevan, 2015). It is also the State Level Nodal Agency (SLNA) for the implementation of JnNURM, RAY and PMAY.

In 1971, the government enacted the Town and Country Planning Act, replacing the Madras Town planning Act of 1920. This continues to be the principal legislative tool that regulates urban development in Tamil Nadu and set up the Directorate of Town & Country Planning

(DTCP) under the Housing & Urban Development Department (H&UDD) of the Secretariat. DTCP has its jurisdiction over the entire Tamil Nadu except Chennai Metropolitan Development Area (CMDA). Prior to this legislation, the Madras Metropolitan Development Authority (MMDA) had been established as a department under the corporation of Madras to develop and implement a master plan for Chennai (formerly known as Madras) and its agglomeration. In 1975, the MMDA was separated from the corporation and given statutory authority. The CMDA (formerly MMDA) remains the principal institution for regulating urban land use, in Chennai and its metropolitan area. Apart from these institutions and legislations, the Corporation of Chennai, and the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) also play a vital role of basic service delivery in slums as well as tenements constructed by the TNSCB.

[13]In Chennai & Coimbatore, rented housing ratio is higher than in Tamil Nadu (Urban) and comprises nearly 50% and 53% of the census houses. (CRDF, 2018, p. 29).

Approach to Housing for Urban Poor in Tamil Nadu

TNSCB was initially responsible for construction of multi-storied tenements in existing slum lands. Over time, slum dwellers sought improvement to their existing housing, preserving their claim over the lands, leading to several in-situ development projects. Raman (2011) attributes this to 'pro-poor politics' of political party DMK (Dravida Munnetra Kazhagam)14. While national housing policies emphasised the role of the state as a facilitator of housing rather than a builder, DMK housing policies focused on state construction of housing, explicitly limited evictions and created a public discourse allowing groups of politically adept squatters to consolidate their hold on public land to boost the DMK's electoral strength in urban areas.

In the 1970s, there was a move towards self-help housing and in situ slum upgrading rather than construction of new houses by the government which began to be seen as more expensive. The Tamil Nadu government adopted the World Bank's approach to affordable housing that paid more attention to cost recovery and provision of land tenure. The Sites and Services Scheme (SSS) was one such landmark program with TNSCB as one of the key stakeholders. Under this program, the Madras Urban Development Projects (MUDP) I and II were implemented between 1977-88 with CMDA as the nodal agency. The CMDA evolved a Community Development Wing (CDW), that worked with residents of notified slums in implementing the project. The program was well-appreciated as its approach had factored in the 'ability to pay' of the target population (Owens, Gulyani, & Rizvi, 2018). However, SSS projects were delayed because of problems in acquiring land from private landowners and the reluctance of the government to evict squatters on construction sites. The World Bank contended that politics had interfered with the implementation (Raman, 2011, p. 75).

In the mid-1980s, the government began to implement the World Bank-funded "City Beautification Scheme", which led to a number of slum evictions throughout the city. In 1986, fishermen in Chennai resisted the relocation of their villages along Marina Beach planned under this project, leading to riots and police firing at the protestors, seen as an extremely aggressive approach by the government. Gradually by 2000, the TNSCB was almost exclusively involved in building large-scale tenement clusters on the outskirts of Chennai to house slum-dwellers evicted and relocated from central areas of the city (Raman, 2011). Even today, its current activities are focused on building large-scale resettlement colonies on the outskirts of cities. In Coimbatore, the Eco-Restoration Plan for Eight Lakes15 identified under Coimbatore Smart City Proposal have led to resettlement of slums previously situated along the lakes. The lake rejuvenation project aims to clean the lakes, improve water security, protect biodiversity, create public spaces, cycling tracks and provide affordable housing in the vicinity. In the cases where the sites are far from the original location in the city centre and hence, the livelihoods of the residents, the relocation has not been favoured by the residents despite the improved housing quality.

Tamil Nadu Housing Schemes and Policies

Prior to the SSS, the TNSCB and the TNHB had been building around 3,000 units a year at a cost of INR 25,000 each. The SSS on the other hand, was supposed to have reached at least 76,000 slum households at a much lower cost of INR 10,000 (Raman, 2011, p. 77). According to the bank's analysis, public housing for the poor had been provided to citizens at an 80% subsidy. Its policy analysts concluded that households in Chennai could afford down payments of six months' income and could pay for houses that cost double their annual income. Plots were sold to beneficiaries for a down payment of 10% of the actual cost, with the balance payable over five to 20 years at 12% interest (instead of the earlier 4%).

The state also has a history of providing land at no cost for the poor to construct houses. Under this scheme, free land titles or pattas were given to individuals who earn less than INR 30,000 in rural areas, and below INR 50,000 in urban areas,

[14]DMK's social policy is based on the Dravidian principle of lifting up of all sections of the society and improvement of lives of economically underprivileged and socially marginalized.

[15]Selvachinthamani, Periya Kulam, Valankulam, Narasempathy, Krishnampathy, Selvampathy, Kumarasamy, Singanallur

annually. The government also ensures that the title is issued only in favour of the female member of the household. As of 2007, of the 48,459 MUDP households, 25% had been issued sale deeds. Of TNUDP residents, only 5% of the 47,790 eligible households had received sale deeds. Of other tenement projects built by TNSCB, only 14% of 72,392 eligible households had received sale deeds. However, since 2011, a total of 1,612,390 free pattas have been issued as against the government's target of 1,400,000. Tamil Nadu also has a special Act called the Tamil Nadu Acquisition of Land for Harijan Welfare Schemes Act, 1978 which provides for acquisition of land for the Harijan communities (ASCI, 2016, p. 20).

A predecessor to the BLC scheme can be found in the 'Housing for Poor' scheme introduced by the state in 2005. The Government undertook the upgradation of 120,000 kutcha houses (which was defined as having thatched roof or mud walls) in two years at a total unit cost of INR 10,000. The beneficiary's contribution towards the cost was fixed at INR 500 which could either be in the form of cash or labour. The government has also aided construction through the provision of free cement to poor beneficiaries (Kalaignar Veedu Vazhangum Thittam Scheme of 2010. The BSUP scheme under JnNURM functioned from 2005 to 2012 with a funding pattern as follows: 50 percent funding by the Centre, 40 percent by the State, and 10 percent by the beneficiary (not exceeding INR 30,000). During this time, the unit cost of a house was assumed to be between INR 80,000 to INR 160,000.

Apart from the central housing schemes such as JnNURM and RAY, the state also proposed to build green houses for EWS families in Town Panchayats. Each green house is to be constructed with solar powered lighting systems and a maximum plinth area of 300 sq. ft. at a unit cost of INR 210,000, in addition to a subsidy amount of INR 16,000 or 90 person-days. A type design has been provided for by the state and no changes are normally permitted. 20,000 houses were taken up during 2016-17 at a cost of INR 420 crore. The Government is seeking innovative methods to increase the availability of affordable housing for LIG and EWS categories through the formation of a Shelter Fund. In January 2018, it passed a bill to provide statutory backing for the Fund to finance housing projects for the urban poor. This is to be facilitated by the Tamil Nadu Infrastructure Fund Management Corporation (TNIFMC) which will raise money through Innovative Financial Vehicles from private investors. The National Housing Bank is a prospective partner in this regard.

Tamil Nadu has approved the highest number of applications under the BLC after Uttar Pradesh. This vertical under the PMAY enables households that already own land with a subsidy of INR 2,10,000 to construct a new pakka house or enhance their existing pakka or semi-pakka house. The state's contribution in the subsidy accounts for INR 60,000. The subsidy disbursal is different for Town Panchayats. The DTP, which is the responsible government department, provides a total subsidy amount of INR 210,000 but also sets aside an amount of INR 14,000 towards the installation of 4-5 solar lights in each house. Although the state has approved far higher units under the BLC, it also experiences a low completion rate of 10 percent. At the same time, the completion rate is still higher than other comparable states (Das, Chatri, Jacob, Jose, & Mahalingam, 2018).

Currently, 10% of any housing project on private land is reserved for EWS housing in the state. With land proving more expensive for TNHB after the introduction of LARR, the state assembly recently passed a bill for launching the Land Pooling Area Development Scheme for Housing and Infrastructure. A bill has also been passed to give statutory to the Transferable Development Rights to allow additional built up area in lieu of land surrendered by a landlord in urban areas.

The Twelfth Five Year Plan aims to achieve "safe and affordable housing and also inclusive, sustainable and slum-free cities" in Tamil Nadu. The Draft Tamil Nadu State Housing and Habitat Policy-2016 is the first ever attempt by the government to develop a comprehensive perspective on urban housing. It emphasizes the need for the Government to act as a builder and provider for the poorest of its population; and as a facilitator for other economic groups to achieve the housing for all objective.

Text Box 8: Brief Timeline of Housing Schemes & Programs – Tamil Nadu

- 1961 Tamil Nadu Housing Board set up under the Tamil Nadu Housing Board Act 1961, incorporating the CIT
- 1970 Tamil Nadu Slum Clearance Board set up
- 1970 Tamil Nadu Slum (Improvement and Clearance) Act passed
- 1978 Tamil Nadu Acquisition of Land for Harijan Welfare Schemes Act
- 2005 Housing for Poor Scheme
- Upgradation of 120,000 kutcha houses
- 2010 Kalaignar Veedu Vazhangum Thittam Scheme
- Free cement to poor beneficiaries
- 2012 Tamil Nadu Government Rental Housing Scheme
- 2012 Vision 2023 launched
- 2016 Draft Tamil Nadu State Housing and Habitat Policy
- First comprehensive state housing policy

Housing Policies in Odisha

As per the 2011 Census, only about 17 percent of Odisha was urbanised accounting for 6.9 million urban residents, compared to the national average of over 30 percent (Census, 2011). While the total growth was only 13.97 percent between 1991 and 2001, urban areas saw an accelerated population increase of 26.8 percent in 2001-2011. Even with few large urban centres, the urbanisation pattern of Odisha is not clustered – urban areas are distributed across the state with the exception of the emerging Cuttack-Bhubaneswar-Puri metropolitan region that concentrates higher population and migration inflows. The 2011 Census estimated 23.09% of the urban population of the Odisha (almost 5,00,000 households) was living in slums without security of tenure. However, by 2017, geo-spatial analysis firms in Odisha claimed that close to 40% of households are living in slums in Bhubaneswar and Cuttack (Royo-Olid, forthcoming)

The Housing & Urban Development Department (H&UDD) is the nodal institution responsible for ensuring planned growth of towns with adequate infrastructure and services provided to the citizens through the Urban Local Bodies (ULBs) and parastatal agencies. The key legislations that empower H&UDD to undertake planning functions are the Orissa Town Planning and Improvement Act, 1956 and the Orissa Development Authorities Act, 1982. The latter empowers the state to constitute Urban Development Authorities (UDAs) responsible for planning urban expansion, delineating boundaries, and implementing policy framework and guidelines for the planning areas.

Odisha Housing Schemes and Policies

According to the Orissa Survey and Settlement Act, 1958, the state is the absolute owner of land. A person enjoying rights to use a parcel of land is referred to as the 'occupant' as opposed to an owner. After independence, Government of Orissa passed several legislations to establish a comprehensive legal framework for land reform such as the Estate Abolition Act 1952, Survey and Settlement Act 1958, Orissa Land Reforms (OLR) Act 1960, the Orissa Government Land Settlement (OGLS) Act 1962, the Orissa Consolidation of Holdings and Prevention of Fragmentation of Land (OCH&PFL) Act 1972, the Orissa Prevention of Land Encroachment (OPLE) Act 1972, and the more recent Scheduled Tribes and Other Forest Dwellers (Recognition of Forest Rights) Act 2006. Subsequently, some of these laws have been repealed while others have been amended in response to emerging requirements. The National Land Record Modernisation Programme (NLRMP)16 was implemented in 2008 to update the management of the state land records. Almost all the Record of Rights (RoR) have been computerised in Odisha and are accessible.

Odisha introduced the Slum Rehabilitation and Development Policy (SRDP) in 2011, which aimed to develop a 'slum-free Odisha by 2020' and improve conditions of urban poverty by upgrading through in-situ development, provision of tenure security, and by minimising far- site relocation. SRDP also prescribes financial inclusion, denotification of upgraded slum settlements, rental housing options and community participation in the decision-making process (Das & Mukerhjee, 2018). The Revised Scheme for Affordable Urban Housing in Odisha, 2013 stipulated reservation of land at the city and zonal levels to house the urban poor. However, major bottlenecks could not be removed.

In order to achieve 'Housing for All', the Awaas – Odisha Urban Housing Mission (OUHM) and Policy for Housing for All in Urban areas was launched in 2015. The State Government created the District Urban Housing Societies (DUHS) to provide additional managerial and technical capacity to OUHM at the district level. In alignment with the PMAY, Awaas aims to provide an enabling framework for implementation of affordable housing projects, slum rehabilitation and re-development projects in Odisha (Anand & Deb, 2017). As an integrated directorate of H&UDD, OUHM takes all policy decisions and undertakes the necessary administrative and legislative measures to implement the policy. It also functions as the State

level Nodal Agency (SLNA) for the implementation of Central Government schemes such as PMAY-HfA. It aims to create surplus housing stock through different strategic development models and to ensure shelter for every identified homeless in the State including temporary migrants, through provisioning of permanent residential EWS and LIG units, as well as rental housing. The implementation of Awaas mission is envisaged through the seven models: mandatory development of EWS housing, incentives for market-based development of EWS and LIG housing, development of affordable housing projects, in-situ slum redevelopment, relocation and rehabilitation, beneficiary-led individual housing construction or enhancement and rental Housing.

In 2017, the Odisha state government ordained the Odisha Land Rights to Slum Dwellers Act heralding Odisha as the first state in India to grant land rights to the urban poor. Seen as a historic legislation in many ways, the Act assured land rights to 200,000 slum households and access to better healthcare, education and housing services under the Odisha Municipal Corporation (amendment) Ordinance, 2017. The Act is rooted in a broader mission of turning titled slums to liveable habitats, so beneficiaries have access to better sanitation and credit and can lead better lives.

In slums, a patta or a certificate of title is often the only address proof to open bank accounts, get credit from financial institutions, enrol children in schools and access a range of government benefits including caste and community certificates. Most slum residents lack pattas without which their financial and social opportunities are significantly impaired (Mathivathanan, Pichel, Dash, & Shrivasatava, 2019). The Act created a working title through the instrument of a Certificate of Land Right, which grants the right to occupy a particular piece of land. This right is heritable but not transferable - the right holder cannot sell, lease or gift it to someone else. It is, however, mortgageable for housing finance, and can be transferred to the relevant financial institution in case of default.

[16]Combined the older programmes Strengthening of Revenue Administration (SRA) and Updating of Land Records (ULR) launched in 1987 with the Computerisation of Land Records (CoLR) launched in 1988-89.

Text Box 9: Brief timeline of housing-related acts and schemes – Odisha

- 1951 The Orissa Estate's Abolition Act
- 1955 Shri Jagannath Temple Act
- 1956 The Orissa Town Planning and Improvement Act
- 1958 The Orissa Survey and Settlement Act
- 1960 The Orissa Land Reforms Act
- 1972 The Orissa Prevention of Land Encroachment Act
- 1982 The Orissa Development Authorities Act
- 2006 The Scheduled Tribes and Other Forest Dwellers (Recognition of Forest Rights) Act
- 2011 Slum Rehabilitation and Development Policy
- To develop a slum-free Odisha by 2020 and improve conditions of urban poverty
- 2013 Revised Scheme for Affordable Urban Housing in Odisha
- 2015 Awaas – Odisha Urban Housing Mission
- 2015 ODA Amendment Act
- 2017 Orissa Land Rights to Slum Dwellers Act
- 2017 Odisha Municipal Corporation (amendment) Ordinance
- Assured land rights to 200,000 slum households with access to better healthcare, education and housing services.
- 2018 Jaaga Mission or Odisha Liveable Habitat Mission
- A multi-stake holder programme for effective implementation, community building and use of technology to improve socio economic conditions of slum dwellers

[17]Share distribution anchored in PMAY Policy and AWAAS Policy is 40-60

Contemporary Debate

Housing Shortage

The pattern of urbanisation in India is 'top heavy' with one of the highest global percentages (23.5 percent) of its total population living in cities of 5 million plus populations. Tier-I cities with populations of over 100,000 comprise about 70% of India's urban population. In the 3 decades since 1981, the share of million plus cities within the urban population has gone up from 26% to 42.6%, whereas the share of other categories (Tier 2-6) of cities has been consistently declining (Tiwari & Rao, 2016, p. 7).

TG-12 (MoHUPA, 2012) pins 80 percent of current housing shortage to congestion, that is, households having large number of persons per room or wherein a married couple shares a room with an adult. The percentages for households living in obsolete houses, non-serviceable katcha house and homeless are 12, 5 and 3 respectively (Kundu & Kumar, 2018). In addition, approximately 14.8 percent of the housing stock in metropolitan India lies vacant or unoccupied18 (HSMI-HUDCO Chair-NIUA, 2017, p. 79). Apart from market speculation, another reason for this is the disparity between rented and owned accommodation due to local tax structures and civic fees (MoHUPA 2013). Typically, a rented house attracts double the property tax in most cities (Harish, 2016, p. 55).

Harish (2016) discusses the complexities of mobilizing vacant properties as rental stock, while Kundu and Kumar (2018, p. 17) have recommended making them available for purchase under the PMAY. Tiwari and Rao (2016, p. 9) explain that the addition of new housing stock in the market has not reduced shortages, implying that the target consumers for the new stock are different from those households who are creating the market demand for housing. Furthermore, the stock is unaffordable even for the targeted consumer group, which leads to lesser absorption and higher vacancy rates. Wadhwa (2009) and Tiwari and Rao (2016) pin the failure of housing programmes on their short life spans and shortage of funds, with a very low budget outlay for housing. Wadhwa (2009) further lists the reasons for unaffordability of housing in the market as high land prices, cost of construction, transaction cost, taxes & legal charges, and profit margins of private operators. To understand the unaffordability of housing, first, we need to understand how affordability is defined.

Definition of Affordability

Several structural factors stand in the way of benefits reaching the beneficiaries. The key factor has been the high Equated Monthly Instalments (EMI) to be repaid by them. Deepak Parekh Committee (2008), constituted by the MHUPA, stipulated that an affordable housing unit for EWSs & LIGs should be financeable by home loans with EMIs not exceeding 30% of the household gross monthly income, and it should be constructed such that the carpet area of the housing unit is between 30 sq.m. and 60 sq.m. Similarly, for MIGs, the EMIs should not exceed 40% of the household gross monthly income and the carpet area of the house should be about 120 sq.m.19 Housing loans are generally given with the upper limit of 4 times the annual income of the household for a longer tenure (around 15-20 years), with the assumption that 25-30% of their annual income can be paid towards the EMI. Repayment of the loan amount with interest, amounting to more than 30 percent of their earnings, built into the PMAY vertical CLSS, is proving a major issue for the poor and LIG households, given their pattern of earning and expenditures (Kundu & Kumar, 2017).

The gap is widest for BPLs, which constitute approximately 22% of the population of India (Planning Commission of India 2013) or 29.5% according to the Rangarajan report (2014). With income constrained to the extent that BPL persons cannot

[18]This may include occupied but kept locked.

[19]The groups EWS and LIGs were defined by having an annual household income of no more than Rs100,000 and between Rs100,000 and INR 200,000, respectively (MHUPA 2013, 5). According to latest definitions under PMAY, the annual income cap is up to INR 3 lakh for EWS, INR 3-6 lakh for LIG and INR 6-8 lakhs for MIG

even afford to pay for adequate food, it becomes extremely challenging to fill the gap for a house, assuming that most of the BPL population are homeless or live in extremely dilapidated housing conditions. Wadhwa (2009) assumes that the BPL class can at best afford to pay up to 5% of their monthly income as rent or EMIs for housing. She also proposes a reduced figure from 30% to 20% for EWS but has retained 30% to 40% for LIGs and MIGs. As per research by Tiwari and Rao (2016), this amounted to merely INR 134 in 2009 when average market rent in tier-I cities was INR 7,14820 for a house of 28 sq.m., which is nearly 53 times higher than what BPL households can afford (Refer Table 5). The situation is only slightly better for the EWS and LIG classes, for whom the average market rent of INR 7,148 is 13 times and 7 times, respectively, what they can afford to pay for housing. Even the MIG class is unable to afford a small house of 28 sq.m. and, thus, housing was observed to be affordable only for approximately 16% of the population (Jones Lang LaSalle 2010) belonging to higher middle-income and higher income groups (p. 14).

Das, Karamchandani, & Thuard (2018) contend that in Indian cities with a population of more than 1 million, 70 percent of households have monthly incomes between INR 9,000 and INR 20,000, and the largest loan that a household with monthly income of INR 20,000 can afford is INR 6,00,000. With a weighted average loan ticket size of INR 9.3 lakhs, the bulk of the housing finance supply is likely not reaching households poorer than the upper-end of EWS, thus failing to enable home ownership for a large share of the urban population (p. 29). Similar assumptions have also been made in the latest CEPT study for Tamil Nadu which has assumed that Price to Income Ratio of 4 can be considered affordable (CRDF, 2018, p. 48). However, such assumptions on payment capacity by Das, Karamchandani, & Thuard or by CEPT can be seen as very high, as explained further in Finding 2.

There is an urgent need to evaluate the affordability gap and change the frameworks used to define affordability criteria (Bhan, Anand, & Harish, 2014; Wadhwa, 2009). Further, affordability is only one dimension of 'adequate housing' – besides availability, accessibility, acceptability, and adaptability (Ayala, van Eerd, & Geurts, 2019) or as postulated by Wadhwa (2009).

[20]Rent is assumed to be 3.5% of the house cost by Tiwari and Rao (2016)

Defining Affordability for Various Income Groups and Housing Shortage in Urban India, 2007-2010

Income group	Defined/Desired affordabilitv				Affordab ility status in 2010		Number of housing units required (million, 2007)
	Monthly income of household (Rs, 2010)	House Size (square meter)	Affordabi lity (1): House price (rent/ EMI) as percentage of monthly income	Affordab ility (2):Ratio of house price to annual income of household	House price* (rent/ EMI) as percentage of monthly income	Ratio of house price* to annual income of household (in 2010)	
Below poverty line BPL	≤ 2,690	21-27	5%	2	266%	76	21.78 (which is 99.86% of 21.81 households)
Economicany weaker section EWS	539-3,300		20%	3	217%	62	
Lower-income group LIG	3,301-7,300	28-40 41-60	30%	4	98%	28	2.89 (which is 10.48% of 27.57 households)
Middle - income group MIG	7,301- 4,500	61-112	30%-40%	5	49%	14	0.04 (which is 0.24% of 16.92 households)
Higher-middle-income group HMIG	25.829 (avg.)	>112	30%-40%	5	28%	8	
Higher-income group HIG	85,152 (avg.)		30%-40%	5	8%	2	

Source: Tiwari and Rao (Housing Markets and Housing Policies in India, 2016, p. 13)

Rental Housing

There are varying estimates of rental housing within Indian cities with the Census (2011) estimating that there has been a decrease in rental housing over the past decades while the National Sample Survey Office (NSSO) pegs its share at a steady 32-36 percent of the housing market. The long term implications of the Rent Control Act 1948 over the last few decades have led to a shrinkage of supply of rental housing in the market, increased rents, fast deterioration of housing stock, disincentive to investment in housing in general and rental housing in particular and emergence of black money and various other malpractices in the rental housing market (Wadhwa, 2009, p. 9). The beneficiaries have largely been occupants of old tenancies and not urban poor. Rent control is a state subject and the Rent Control Acts across various states have been ineffective. Apart from subsidized rental housing for low income central and state government employees, housing policies and discourse in the country have solely focused only on ownership housing (Harish, 2016, p. 51).

It was with the Eleventh Five Year Plan (2007–12), that there was a stronger focus on rental housing through programmes such as JnNURM and RAY with rental housing projects allowed and encouraged under the latter (Harish, 2016, p. 51). Harish (2016) points out that PMAY has not included any support for rental housing projects though states are expected to reform their rent control acts to access funding for the scheme. With the recently released Model Tenancy Act 2019

which is in the phase of stakeholder consultation, there exists a formal document to safeguard the rights of tenants and homeowners. It is also envisioned that this would lead to a decrease in the number of vacant houses by providing more accountability in the rental housing ecosystem. The draft National Urban Rental Housing Policy prepared in 2015 suggests that state governments reserve certain percentage of newly built flats/FSI/land within large housing projects at affordable rent. It advocates for support to public and private agencies for effective planning and execution of social rental housing programmes/schemes.

Harish (2016) suggests that publicly provided social rental housing should not be considered a permanent housing solution for low-income households in urban areas. Instead, they could be viewed as a platform to enable them to access livelihood opportunities and tapping into the private or unsubsidised housing market (p. 54). Studies by GIZ from Odisha (Das, Potti, Mukherjee, & Mazumder, 2017) suggest that informal housing be recognised as part of the rental housing policy. A regulatory mechanism could be introduced along with an overarching legal framework through appropriate forms of regulation and para-legal structures, such as Resident Welfare Associations, Ward level committees, etc, for effective conflict management and mutual protection. It is believed that the Model Tenancy Act, 2019 will help overhaul the legal framework vis-à-vis rental housing across India and may also give a boost to private participation in this segment, inter alia for removing the perceived risk for landlord in the absence of clear mechanisms for how to evict a tenant in case that would be needed.

Land Development

Land is seen as a key constraint to addressing the shelter needs of the increasing urban population. Compulsory land acquisition based on the principle of eminent domain has been the most important mechanism for acquiring land for urban infrastructure projects in the past. The central law that applied in this case was the Land Acquisition Act LAA, 1894. Its replacement by the new act, the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (LARR) Act, 2013 has been hailed as a progressive community-centric legislation. At the same time, there have been concerns about its long-drawn processes and higher compensation affecting the viability and affordability of housing projects (ASCI, 2016). This has led to the state governments looking for alternative ways to assemble land for urban infrastructure, such as Land Pooling and Readjustment (LPR).

LPR is increasingly gaining acceptance, both in the context of peripheral urbanization and the redevelopment of existing urban areas. The common features characterizing countries that have been using land pooling successfully are rapid population growth, high real estate values and fiscal constraints to finance large development initiatives. Land pooling is favoured given its greater social and political acceptability, as well as self-financing nature, and has been used recently in the greenfield capital Amaravati. Recognising the potential role of LPR in urban land management, the Ministry of Housing and Urban Affairs (MoHUA) introduced a scheme under the Atal Mission for Rejuvenation of Urban Transformation (AMRUT) to promote this technique. It is called the Pilot Formulation of Local Area Plan (LAP) and Town Planning Scheme (TPS) and covers 25 cities.

The study by ASCI (2016, p. 179) reports that concern about timeline in LARR have been more hyped, attributing its non-implementation to political factors and deadlock over institutional changes. Despite cost implications due to higher compensations, it is seen as a successful land assembly strategy. It is seen as much needed due to its focus on equity and social acceptance, which also help reduce the time and cost overruns due to land conflicts that may arise. At the same time, benefits of land-pooling strategy are its efficient application in different parts of the country if it can create benefits for most stakeholders by generating land value increase sufficient enough to cover project costs and leave landowners with significant gain in their total land value despite reduced sizes of their landholdings (ASCI, 2016). The recent study by ASCI (2016) which was commissioned by NHB recommends a combination of the two for land management efficiency and social equity.

Finance and FDI

The government had allowed 100% FDI in townships, housing and built-up infrastructure and construction developments since 2005. However, only USD 23.75 billion flowed into the sector, a small amount compared with other sectors. And while the construction sector has huge potential for foreign investment, the flow was only about 10% of total FDI into the country (JLL India, 2018). Consequently, the government eased FDI norms in the construction sector in 2014 to attract more foreign investment in the construction and real estate sector, which has been facing a severe liquidity crunch in the past few years. Now, projects that commit at least 30% of total cost for affordable housing would be exempt from the minimum built-up area and capitalisation requirements with a minimum three-year lock-in period. However, the easing came with certain riders. The Indian investee company will be permitted to sell only developed plots. Subsequently, projects using at least 60% of the FAR/FSI for dwelling units with a carpet area of not more than 60 sqm will be considered as affordable housing projects.

Despite the opening of FDI, not much traction has been seen in the Affordable Housing segment till date. However, there have been several other latest initiatives and interventions by the government to support the affordable housing sector (DTTILLP, 2016):

- External Commercial Borrowing (ECB) has been allowed for affordable housing projects from 2012 to enable lower interest cost for developers and ensured better capital availability for developers of low-cost housing. In 2013, the parameters for extending ECB to Slum Rehabilitation Projects, were outlined.
- The Central Board of Direct Taxes (CBDT) has extended the benefits of section 35AD (permitting 150% of capital expenditure as tax deduction) of the Income Tax Act, 1961 with effect from assessment year 2012-13 to affordable housing. However, practically, there were no takers of this scheme as developers/ builders have minimal costs capitalized in their books as capital costs. Major chunk of costs is represented by housing units as inventory / stock in trade not as capital asset in order to be eligible to claim the benefit of investment linked incentive.
- In addition to the service tax exemptions already available, construction of the following has been exempted from service tax from 1 March 2016: Low-cost houses up to a carpet area of 60 square meters in a housing project under the AHiP vertical of PMAY and low-cost houses up to a carpet area of 60 square meters in a housing project under any housing scheme of the State Government
- The Credit Risk Guarantee Fund with a corpus of INR 1200 crore in collaboration with NHB was set up (2012) to facilitate credit availability to low-income customers without any collateral. The purpose is to guarantee the lending agencies for loan to LIG/EWS borrowers for loan amount up to INR 8 lakhs and unit size not exceeding 430 sq.ft, thereby reducing the perceived risks for the lending institutions and catalyse the flow of credit to low income housing sector.
- Urban Housing Fund Refinancing Scheme with a corpus of INR 2000 crore in the year 2013-14 has been created. The purpose of this scheme is to provide refinance assistance in respect of loans extended by HFCs to public agencies, private agencies, developers, builders for their AH projects. The arrangement is applicable for slum improvement/ rehabilitation as well as for AH projects where unit costs do not exceed INR 30 lakhs. The tenure of the refinance under the Scheme will be co-terminus with the PLI's loan to the agency subject to maximum tenure of 5 years.
- Tax free bonds are issued by HUDCO and NHB to ensure lower cost of borrowing by them and in turn reduce their onward lending costs.
- Efforts in increasing the ease of doing business especially in obtaining construction permits in urban areas has been stepped up and several initiatives undertaken. For example, Single Window clearance has been initiated through an integrated online portal in select cities.

- Recent amendments to the Finance Act (2016) have introduced a 100% tax holiday to affordable housing subject to few conditions.
- The Government (in the Budget for FY 16-17) has also considered the needs of the buyer and allowed an additional deduction up to INR 50,000 in respect to interest for first time home buyers. In addition, the time period for acquisition/construction is enhanced to 5 years. In addition to the above, the central government and select state governments have initiated several positive and reinforcing measures to give a fillip to the affordable housing sector.

Housing, Economy and Employment

Housing is a major driver of the economy and of non-agricultural employment generation. A review of the World Bank's housing loan portfolio over 30 years demonstrated the significance of the sector. For example, housing and urban investments accounted for 10 percent of GDP and 9 percent of employment in Mexico (Text Box 1) and housing accounted for 3 percent of GDP and 5 percent of employment in Brazil (Text Box 2). Consecutively, the review showed how integrated development of land investment in the sector is required for exploiting the positive linkages of housing, economic growth and employment – while addressing potential constraints to enjoying the urbanization dividend: in particular improving access to land, services and housing for all households and focusing in low-income and poor households.

Text Box 1: The case of Mexico: housing deficit, GDP, employment, and policy response Source: Buckley & Kalarickal, 2006, pp. 69–70

Affordable housing in cities represents one of the crucial challenges in urban development at Mexico's current state of demographic and socioeconomic development. Though population growth has slowed dramatically, new household creation and demand for housing and basic services have accelerated - doubling the number of new households - due to the baby boom of the 1970s and 1980s. Low and moderate-income families, in particular, often lack access to formal sector.

Furthermore, housing continues to be critical to the economy at large. Housing and urban investment account for 10 percent of GDP and the construction sector generates 9 percent of all employment.

In response to this increased demand, the Mexican government has undertaken a comprehensive reform agenda. This reform agenda allowed the [World] Bank to support lending projects that (…) assist the Government of Mexico to:

a. develop a sound national policy and institutional framework for housing and urban development;
b. design and put in place a unified federal housing subsidy system;
c. strengthen the housing credit and savings system and move these systems down- market;
d. strengthen urban real property registries and rights;
e. coordinate physical and social investments to systematically upgrade poor neighbourhoods;
f. increase supply of urban land and market access to urban land by the poor; and
g. better prevent and manage the impacts of natural disasters.

Text Box 2: The case of Brazil: housing deficit, GDP, employment, and policy response Source: Buckley & Kalarickal, 2006, p. 70

The housing deficit of an estimated at 7.1 million units affects primarily low-income households and continues to be a problem. A large share of housing is unauthorized and informal settlements are growing four times faster than average urban growth.

At the same time, the housing sector is crucial to the health of the broader economy because housing investment represents 3 percent of GDP and the construction industry employs 5 percent of the labour force.

[In this context], the government of Brazil has initiated a low-income housing strategy aimed at:

- improving the living conditions of the poor;
- strengthening access by the poor to assets, notably housing and serviced or serviceable land; and
- expanding construction in the formal housing market.

In India, the housing sector reportedly accounts for 1% of GDP and 6.86% of employment.21 The housing sector is fourth largest employment generating sector according to a study on "Impact of investments in the housing sector on GDP and Employment in the Indian Economy" conducted by National Council of Applied Economic Research (NCAER) in 2014. In terms of contribution to the GDP, for every rupee invested in housing and construction, 78 paisa get added to the GDP. With a factor of 1.78, housing ranks fourth multiplier on the Economy, ahead of sectors such as transport and agriculture. Investments in the housing sector have steadily increased from INR 1,150 crore in the First Plan period to more than INR 1,20,000 crore in the Ninth Plan period. However, estimates of the Tenth Plan peg the figure at about INR 7,00,000 crore, only (NHB, 2018).

While the financial allocation for housing as a percentage of the total investment in the economy was as high as 34 percent in the First Five Year Plan (1951-56), it has now come down to as low as 2.4 percent in the Tenth Five Year Plan (2002-2007) (Rao, 2004, p. 3). In part this decrease may possibly be explained/offset by increasing shares from States. The initial budget allocation by the central government for the programme HfA for 2015–2016 was INR 40 billion, which is too small to have any major impact (MHUPA 2015). This lack of financial resources and budget allocation can be seen as one of the key reasons for failures of delivery of housing programmes (Tiwari & Rao, 2016, p. 23)

Text Box 3: Summary of number of houses built through central schemes by decade

- 1950-60s: 400,000 houses added in urban centres (Planning Commission of India 1969–1974)
- 1970s: 280,000 houses added for public sector employees and some EWS- LIG (Planning Commission of India 1980–1985)
- 1980-85: 170,000 houses added
- 1985–1992: Total investments in housing for the central and state governments were about 1.3% of the total public outlay (Planning Commission of India 1985–1990). The actual expenditure was far less. 1 million housing units were either upgraded or constructed per year under various programs in the public sector during this period. The average amount of assistance per housing unit was a meagre INR 5,000, which implies that most of the assistance was for upgrading. 2 million houses financed by HUDCO. 200 building centres around the country and 70 became operational
- 1992-97: Around 2 million housing units constructed of which 1.4 million were for EWS-LIG households (Planning Commission of India 1992–1997)
- 2002-12: Only 1.6 million houses sanctioned under JnNURM Planning Commission of India (2012–2017)
- 2013-15: Total of 117,707 houses were sanctioned and only 3,378 were completed (MHUPA 2015)
- 2014-19: Under JnNURM, 3,18,140 houses have been completed and under PMAY, 23,22,026 houses have been completed

After agriculture, real estate and construction together are second largest employment provider in the country. With a 40 million workforce in 2013, it is slated to go to 67 million in 2022 (NHB, 2018, p. 115). The growth of the real estate sector fell from 7.5% in 2013-14 to 4.4% in 2015-16 due to growth of the ownership of dwelling segment decelerating from 7.1% in 2013-14 to 3.2% in 2015-16. Residential launches across top 14 cities in India during H1 2017 fell to the lowest in past five years to about 58,000 units and new residential sales fell to five years low of about 1,01,850 units during this period. (NHB, 2018, p. 115). However, real estate is now said to be picking up after initial setbacks felt due to RERA and demonetization (NHB, 2018, p. 178).

The Union Budget 2018-19 measures for the real estate sector in urban centres are:

- Establishment of a dedicated Affordable Housing Fund in National Housing Bank, financed from priority sector lending shortfall and fully serviced bonds authorized by the Government of India;
- Allocation of INR 6,505 crore for PMAY(U) as against INR 6,043 crore in 2017-18, including allocations for CLSS. Additionally, Internal and Extra Budgetary Resources of 25,000 crore under PMAY(U) have been made available for 2018-19;
- Development of monetizing vehicles like Infrastructure Investment Trust (InvIT) and Real Estate Investment Trust (REITs) in India. SEBI, in February 2017, notified norms allowing mutual funds to make investments in such entities to boost investor's interest in such alternative investments;
- The RBI has raised housing loan limit for eligibility under priority sector lending (PSL) from INR 28 lakh to INR 35 lakh in metropolitan centres, and from INR 20 lakh to INR 25 lakh in other centres. The ceiling on cost of eligible dwelling units has also been revised from INR 35 lakh to INR 45 lakh in metropolitan areas and from INR 25 lakh to INR 30 lakh in other areas. The limits were revised in order to bring convergence between PSL guidelines for housing loans and the affordable housing scheme under the PMAY (NHB, 2018, p. 116).

In order to create a self-sustaining market to address the challenge of land availability and its high cost, the Central Government on September 21, 2017, announced a new PPP (Public Private Partnership) Policy for Affordable Housing. The fundamental strategy underlying Public Private Partnerships as an implementation strategy for affordable housing is to combine the strengths of the private sector with those of the public sector in order to overcome challenges faced by affordable housing and to achieve superior outcomes. The 8 PPP models for promoting affordable housing includes six with private investments on government lands while remaining 2 models involves private investments on private lands (NHB, 2018, p. 117).

Text Box 4: Review of land supply mechanisms. Source: (NHB, 2018)

1. **Government-land Based Subsidized Housing (GLSH):** Under this model, the public authority will provide land to the selected private developer. This would effectively constitute a state subsidy for the project. The private developer will be responsible and held accountable for designing, building and financing of affordable housing stock and associated services of predetermined standards, at a pre-determined cost and within a pre-determined time.
2. **Mixed Development Cross–subsidized Housing (MDCH):** Government land to be allotted based on number of affordable houses to be built on the plot offered to private builders, cross subsidising this segment from revenues from high end house building or commercial development.
3. **Annuity Based Subsidized Housing (ABSH):** Government will provide land under this model as well. The key difference in this model will be that the developer receives revenue from the government in the form of regular annuity payments for up to 10 years instead of a lump sum amount at the time of handover.
4. **Annuity-cum-Capital Grant Based Affordable Housing (AGSH):** This model is similar to the ABSH Model, except that under this model a significant proportion of project cost (say 40-50%) is paid to the private developer during the construction phase itself. The remaining amount is paid to the developer as an annuity for up to 10 years after the successful completion of the project.
5. **Direct Relationship Ownership Housing (DROH):** As against government mediated payments to builders and transfer of houses to beneficiaries in the above four models, under this option, promoters will directly deal with buyers and recover costs. Allocation of public land is based on unit cost of construction.
6. **Direct Relationship Rental Housing (DRRH):** In this model, the allottees would be required to make rental payments towards the usage of the housing unit directly to the developer, whereas these units continue to be owned by the developers.

Further, there are two common PPP projects on privately owned land:

7. **PPP framework for Credit Linked Subsidy Scheme (CLSS) approach:** Under this model, private developer will provide land as well as be responsible and accountable for designing, building and financing of affordable housing stock and associated services of predetermined standards, at a pre-determined cost and within a pre-determined time. The establishment of the eligibility of beneficiaries will be the duty of the Banks extending the loans to the applicant; in this particular case this would be as per the PMAY (U) Guidelines. The allottees would be required to either make pre-determined payment for the cost of the housing unit at the time of handover or pay equated monthly instalments for a predetermined period of time to the private developer. CLSS benefits will be available to the beneficiaries as per the PMAY (U) Guidelines.
8. **PPP framework for Affordable Housing in Partnership (AHP) approach:** Similar to previous Model. However, in this case the establishment of the eligibility of beneficiaries shall be the duty and the prerogative of the public authority. The same shall be announced prior to the implementation of the project. Central Assistance at the rate of 1.5 lakh per EWS house would be available for all EWS houses in such projects.

Urbanization and Income

Economists speak of an urbanization dividend22, that is, when countries become more urban their productivity and wealth tend to increase and human development to advance. This may be attributed to multiple factors, including economies of agglomeration making the exchange and production of goods, services and information easier in densely populated urban centres – as well as the trade of the latter in-between cities globally. Further, the larger the agglomeration, the level of specialization (division of labour) tends to increase and, therefore, the collective productivity and the income of the specialized labourers. Therefore, "areas where salaried work or work in business has greater availability - such as in urban areas or states like Gujarat, Maharashtra, Himachal Pradesh, and Haryana - are better off than the rest of the country" (Desai et al., 2010).

India's population was 33.6 percent urban while income per capita reached 6,480 USD (measured in Purchasing Power

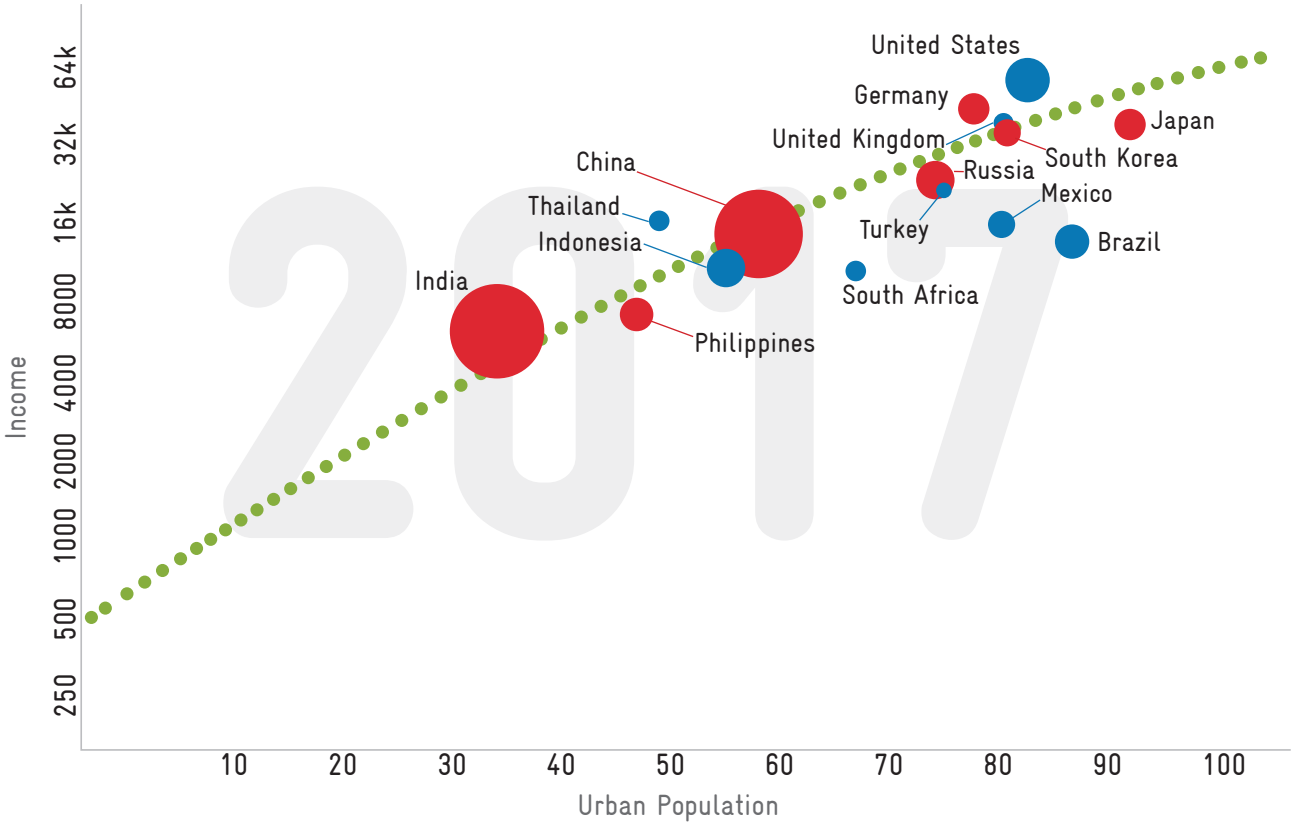
[22]E.g.https://blogs.worldbank.org/endpovertyinsouthasia/leveraging-urbanization-dividend-afghanistan, https://pwc.blogs.com/press_room/2016/12/-rapid-urbanisation-unlocking-the-power-of-cities-for-sustainable-development-.html, or https://www.mckinsey.com/featured-insights/urbanization/urban-awakening-in-india

Parity – PPP) in 2017. Figure 2 graphs income per capita on the y-axis and the level of urbanization on the x-axis. A red-dotted trend line indicates the general relationship between urbanization and income, as already mentioned: the higher the level of urbanization, the higher the income. The figure also shows that India preforms relatively well: despite its still moderate level of urbanization, the nation already enjoys a relatively high income, evident by positioning above the trend line. In contrast to India, many BRIC countries - such as Russia, Turkey, Mexico or Brazil - are unable to enjoy the level of income that would typically be available at the respective level of urbanization. (The latter countries' relative underperformance is evident by the countries' bubbles locating below the red-dotted trend line.)

If India was able to continue this positive trend it may eventually reach the level of income of Germany or of the USA, both appearing above the trend line. To reach this level, India would need to be able to exploit the urbanization dividend. Therefore, the country needs to reduce the cost of living in cities for all its residents - inter alia by providing access to adequate land, basic services and affordable housing - and the cost of participating in urban markets (goods, services, labour) for all citizens - inter alia through access to affordable transportation. This is the central theme of this report: adequate habitats for productive cities.

Figure 2: Relationship of urbanization and income

Source: www.gapminder.org, using 2017 data. (Trendline (red/dotted): manual approximation by the authors.) NB: income is on a logarithmic scale.

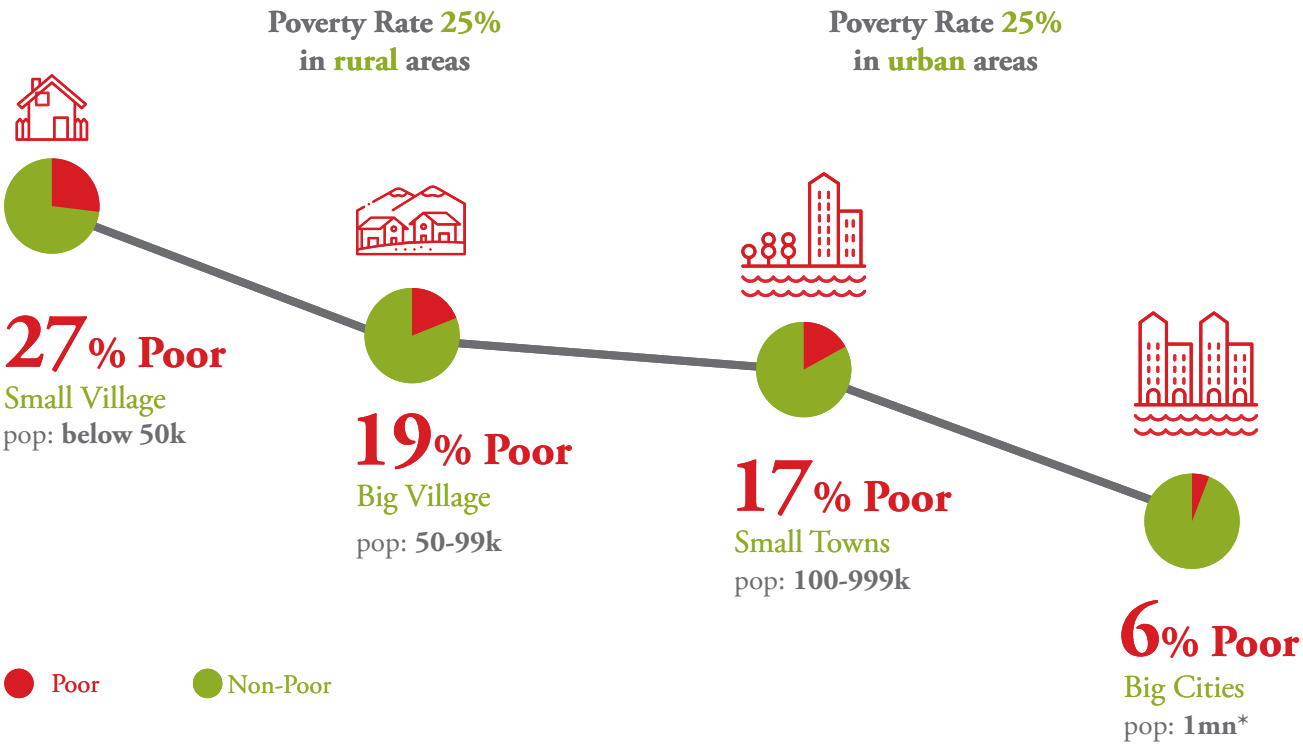


Urbanization also offers unique opportunities to reduce both urban and rural poverty. While RBI (2012) estimated that still 53 million urban dwellers or 13.7 percent of the urban population live below the poverty line, the World Bank's Poverty profile indicates a clear picture of decreasing poverty with the size of the agglomeration. Furthermore, a group of leading World Bank economists argued, "Urban consumption growth came with gains to both the rural and urban poor. The primary/secondary/tertiary composition of growth has ceased to matter, as all three sectors contributed to poverty reduction"[23].

[23]https://voxeu.org/article/revisiting-poverty-reduction-india-60-years-data

Figure 3: Decreasing poverty with the size of the agglomeration

Source: World Bank (2016). India's Poverty Profile. Accessed on June 25, 2019 at: http://www.worldbank.org/en/news/infographic/2016/05/27/india-s-poverty-profile



Urbanization and economic growth

Moreover, given the wealth increase associated with urbanization, cities become a major producer of GDP and of fiscal revenues required to build the nation at large, including rural areas. In 2014, Barclays reportedly estimated that "already by 2020, urban India could house 35% of India's population and contribute 70-75% of its GDP by 2020. India's urban sector presently constitutes 63% of India's GDP (up from 45% in 1990) and has been its key engine of growth acceleration in the past decade. With only 31% of India's population currently urbanized, along with high population density and low GDP per capita, India's urbanization trends have scope to significantly accelerate."24 Further, in 2010 McKinsey estimated that by 2030 "the urban economy [in India] will provide 85 percent of total tax revenue, which will finance development nationwide. And some 200 million rural Indians who live in proximity of India's largest 70 cities will directly benefit." (McKinsey Global Institute, 2010)

To be able to harvest the urbanization dividend, it is critical to harness urbanization for inclusive economic growth and to empower all urban populations to lead a productive life. Otherwise, urban households get trapped in a vicious cycle of low-productivity, low income, and low ability to accumulate the capital that would be required to increase productivity and to break the vicious cycle. In this context, it is imperative that governments enable urban households to access already serviced or serviceable land and adequate shelter, providing a basis for capital accumulation.

In conclusion, urbanization is seen as a positive trend, which should be supported. To this end, improving access to adequate land, basic services, and housing is critical, and investments in housing itself can make a large contribution to GDP growth and employment creation. However, also the access to the larger 'adequate habitat' – i.e. the relationship of housing with the city's physical, economic and social networks is equally important, as discussed further below – matters. Ultimately, 'habitat'

[24]Business Standard on March 20. Accessible online at: https://www.business-standard.com/article/news- cm/urban-population-to-contribute-70-75-of-india-s-gdp-by-2020-barclays-114032000273_1.html

is a key determinant of socioeconomic opportunities of households and, thus, of their payment capacity for housing and of housing affordability, as discussed below.

The following diagnostic section assesses key issues and potential constraints to access to 'adequate habitat and housing': i.e. for reducing the housing backlog by growing inclusive and efficient housing markets, enabled by effective governance and targeted public support. By addressing the identified constraints, India will be able to enjoy equitable and productive urbanization, with a high dividend in form of national income growth.

PART II

Diagnostic Sector Assessment 45

This part this is a combination of field work and literature reviews and interpreted with help of the Rapid Urbanism framework (i.e. existing knowledge that is accepted internationally and also informed by and applicable to India).

Section I – Understanding demand and strengthening households' payment capacity for housing

Finding 1: India's urbanization process significantly increases the demand for housing, basic services and land – much beyond what would be expected when just considering the current deficit.

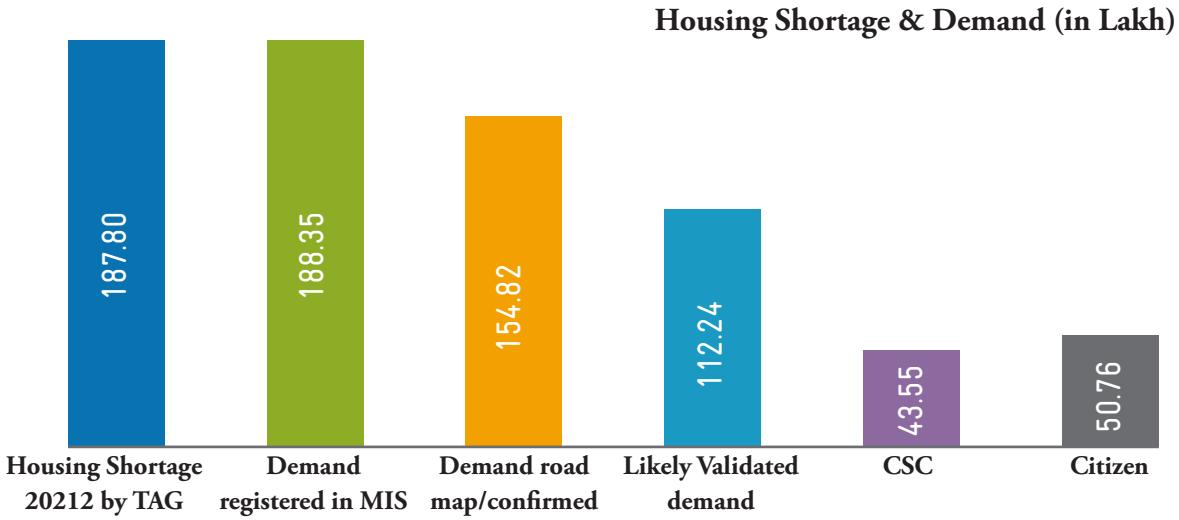
Housing need assessment

There are three main drivers of housing need: first, the current housing backlog (qualitative and quantitative); second, the depreciation of the existing pucca housing stock; and third, the increase in the number of urban households.25

i. **Regarding the current housing backlog, the annual need may be approximately 23 lakh housing units, as follows:** on one hand, official estimates range from 1.88 crore housing units (Report of the Technical Urban Group (TG-12) on Urban Housing Shortage 2012-17, Ministry of Housing and Urban Poverty Alleviation, September 2012) to a validated demand of 1.12 crore units (Figure 4), the latter however possibly excluding households with a housing need but being ineligible for lacking documentation. The previous statistics may be compared with the international benchmark for monitoring the MDGs and SDGs: as per the UN statistics (agreed by consensus with each member state), the share of urban households living in substandard housing (i.e. with slum conditions) was 24 percent in 2014. Assuming an urban population of 419.6 million and an urban household size of 3.9526, the housing backlog as per the UN definition would be 25.5 million units today. (To review the differences in the various estimates would require a more detailed study, e.g. based on a micro census or using sampled surveys, such as DHS or MICS that are used per the international standard method. And ideally the raw data should be available across time.) Based on the international measure that is also used for the SDGs (an anchor point of this study), the objective of reducing the housing backlog completely until 2030 would imply a target of approximately 2.3 million households per year.

Figure 4: Housing Shortage and Demand

Source: PMAY Urban Progress. Source: PMAY-U website accessed on August 27, 2019.



[25] This housing need assessment follows a methodology commonly accepted internationally (e.g. see Payne & Majale, 2012); however simplifies by (a) not differentiating the kind of housing deficit (qualitative/quantitative) and (b) assuming linear annual need over the period studied, rather than an exponential increase. Lastly, as the above analysis focuses in the number of housing units, it ignores the effect that any increase in wealth has in dwelling sizes; however, as this study is focused in EWS and LIG housing – including alleviation of overcrowding and increase in the number of rooms/area per person – this is a legitimate simplification. A more detailed study may detail the housing need assessment, based on the latest and most differentiated data.

[26] Authors' extrapolation from earlier trends: 1994 household size was 4.5, 2012 household size was 4.0; this is an annual reduction of 0.654%; if this trend continued until 2014, the household size would have been 3.95.

ii. **With regards to depreciation of pucca housing, the annual housing need may be approximately 27 lakh units, as follows:** in 2014 the urban population was approximately 319 million while the average household size was approximately 3.95, implying a non-slum housing stock of over 80 million units.27 This existing housing stock requires periodic updates; for example, TNSCB is taking down and redeveloping many of the historic sites with higher densities on Chennai's seashore. In this scenario, not only the additional units need to be built, but also the depreciated housing stock is replaced, increasing the overall number of units to be built. Assuming a complete depreciation of 30 years, this would require updating (e.g. refurbishing or rebuilding) of approximately 2.7 million units per year.

iii. **Regarding new household formation, the annual housing need may be approximately 43 lakh units, as follows:** India's urban population is projected to be mor than double from 429.1 to 876.6 million between 2015 and 2050. Already by 2046, the urban population may account for 50.3 percent of the nation's population, exceeding the rural population (UN DESA 2018 Revision of World Urbanization Prospects). However, India will require a larger number of dwelling units than what would be expected based on the population figures alone: the urban population increase is expected to coincide with a reduction in household size from 4.0 in 2012 to 3.1 in 205028 so that the number of urban households would increase at an even faster rate from approximately 109 million urban households in 2015 to possibly 281 million households in 2050 – 2.6 times the current number. (To cater to changes in households, India would also need a diverse mix of different prototypes of dwelling units, including those for smaller households.) Moreover, following the same approach, between 2018 and 2030 the number of urban households is expected to increase from 119.8 to 170.9 million or, on average, by 4.3 million per year.

In conclusion, India's contemporary annual housing need is approximately 93 lakh units, addressing current backlog, depreciation and new urban household formation.

Land need is projected to grow faster than housing need

The challenge to accommodate the rapidly growing number of urban households is further aggravated by increased urban land consumption: the urban land cover tends to triple when the population doubles (Angel, 2011; Angel, Sheppard, & Civco, 2005). While a detailed land need assessment is beyond the scope of this study, it is important to note that this international trend is probably also true for India: India's enormous growth rates in GDP per capita and the related increase in social welfare would typically increase the per-capita area consumption.

For this augmented challenge, authors identify the need to significantly expand land supply as a primary constraint to 'adequate habitat' development. Beyond conventional planning measures (e.g. land acquisition, land pooling and readjustment such as Town Planning Schemes or Local Area Plans, as well as Public-Private-Partnerships), especially regulatory reforms (e.g. FSI increase and relaxation of setbacks, margins, coverage and parking requirements in development control) as well as fiscal reforms (especially property taxation solely based on land value in exchange for or in combination with elimination of unaffordable lump sum fees on land) require further investigation; these measures are further explored in sections that follow:

Finding 2: To be policy-effective, 'affordability' and 'affordable housing price points' need to be better defined.

To create appropriate baselines for policy design, consider defining affordability as a maximum affordable monthly payment for access to adequate land, infrastructure and housing – and including the cost of transportation required to access cities' socio economic opportunities and based on key characteristics of households (e.g. income, priority expenditures and vulnerability).

Affordability in the context of financing household demand: a sliding scale

To sustain the building of a housing microfinance sector, it is imperative to make prudent assumptions about the regular payment capacity of households so that EWS and LIG households will not be stressed. This is important, as a systematic overestimate (e.g. based on individual success stories, such as in Das, Karamchandani, & Thuard, 2018, Figure 3: Customer Profiles from Field Visits) would either exclude a large number of households or eventually lead to loan losses at a larger scale, either way threatening the objective of developing affordable housing and inclusive housing finance markets.

Table 1 portrays a basis for discussion for defining payment capacity for a housing loan (or, similarly, affordable rent), reflecting households' priority expenditures (e.g. food, and often also transportation; also see Text Box 5) as well as their vulnerabilities to, inter alia, income and expenditure shocks (e.g. due to health crises). In regard to realistic expenditure estimates, the information provided in Figure 5 shows that assuming an income share for housing of 30 percent would not be based on realities, given that households already spend 75 to 67 percent on only food, energy, health and education. Thus, households have between 25 and 33 percent for all expenditures, including housing, social obligations (e.g. wedding presents), savings for life-cycle events and other consumption. The table uses the conventional income group brackets define by GoI. In addition, the World Bank uses 3.20 international dollars as one poverty measure; it is more suitable for urban areas than the 1.90-dollar measure for extreme poverty.

Table 1: Sliding affordability scale for inclusive finance of housing demand

Source: Authors' estimate based on expert interviews, review of secondary sources and international best practices; approach adapted from Rapid Urbanism (CC BY-NC-SA 4.0).

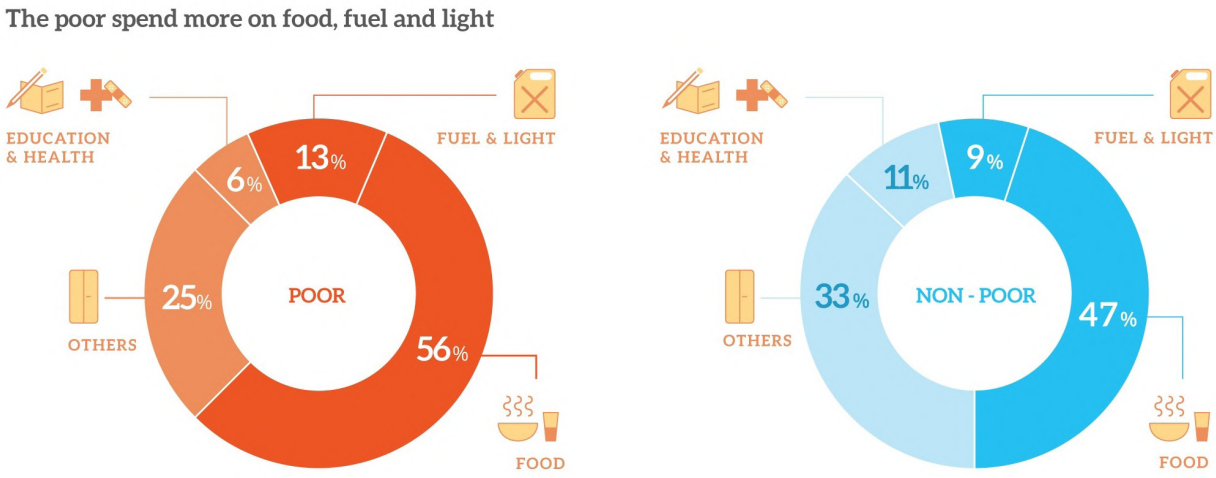
INCOME GROUP	MIG II	MIG I	LIG	EWS	PPPUSD 3.20
Monthly income, lower bound	INR 1,00,000	INR 50,000	INR 25,000	INR 12,500	
Monthly income, upper bound	INR 1,50,000	INR 1,00,000	INR 50,000	INR 25,000	INR 7,000
Monthly income, typical (assumed)	**INR 1,25,000**	**INR 75,000**	**INR 37,500**	**INR 18,750**	**INR 5,000**
Prudent / affordable income share, not imposing undue stress on household or lender	25%[29]	25%	20%	15%	10%
Monthly income, typical (assumed)	**INR 1,25,000**	**INR 75,000**	**INR 37,500**	**INR 18,750**	**INR 5,000**

[29] Originally, the team assumed 30% disposable income for MIG II; however, after interviews with high-level policy makers, the team reconsidered and reduced the value to 25%, thus the same as for MIG I.

[30] Obviously, also households with higher payment capacity exist within each income group; however, a critical share of households does not; therefore, policies should be based on prudent lower income shares for housing. If so, households with a higher payment capacity may still be identified by housing microfinance providers, enabling them to access larger loans, or the households may repay faster, proving themselves as preferred customers that can graduate to products with lower interest rates and longer tenure more quickly.

Figure 5: Households need to spend on food, energy, education and health first

Source: World Bank (2016). India's Poverty Profile. Accessed on June 25, 2019 at: http://www.worldbank.org/en/news/infographic/2016/05/27/india-s-poverty-profile



Text Box 5: Housing affordability – lessons from on-going research in Bhubaneswar and Cuttack, Odisha

Source: Royo-Olid, forthcoming

- **Housing acquisitions on the formal market exceed the payment capacity of EWS and LIG households.** The income multiplier (or 'effort-to-buy i.e. the number of years of gross income necessary to purchase a housing unit) varies from 5 to 9 for Bhubaneswar. [This indicates poor affordability; see Finding 5.]
- **Rising land cost is the critical factor for pricing out the large majority of households.** Many families that live in properties from the pre-liberalisation period could not afford to buy these properties today, due to land values having increased significantly faster than income. In contrast, historic 'effort-to-buy' estimates ranged between 2 to 3 years of gross household income of EWS and LIG surveyed households who purchased a house in the post-liberalised decades [indicating affordability at the time].
- **Households required to spend above 20 percent of income on housing are significantly more likely to report stress,** evident in compromise on nutrition, educational tuition, health costs, entrepreneurial investments, and on their personal dignity and emancipation.
- **Many, especially low-income households purposefully make large sacrifices to be free from debt.** As such, policies that assume that EWS or LIG are (typically) capable of spending 40 percent of their income significantly overestimate capacity and/or willingness to pay for housing.
- **People need tenure security and access to finance to succeed in self-led housing.** Last, a majority of informal settlement households surveyed reported they fundamentally needed tenure security while they expressed confidence in that they would eventually build their own houses with alternative means even if large mortgage loans remained unaffordable to them.

With the above finding, Royo-Olid underlines: (a) the need to assume a lower payment capacity and (b) the confidence of households to invest progressively in order to keep debt low. This calls for more incremental approaches to housing – both on the supply side (e.g. core housing) and in regard to finance (e.g. loan cycles and graduation of proven borrowers to higher-value loans). Last, (c) soaring land prices call for urbanization projects (e.g. planned city infill, planned city extension) that include and cater affordable housing solutions, including incremental ones, that addresses basic shelter needs and can be incrementally advanced.

Affordability for inclusive housing supply: transportation cost vs. location cost trade-offs

Finding 3: 'Cumulative regular payments for transportation and housing' is a prudent policy-inferring indicator for affordability.

For enhancing the supply of new housing units at adequate locations, the required cumulative regular payments for 'housing and transportation' is a suitable measure of affordability, instead of defining any price ceiling (or payment) for just 'housing'. This is important in order to ensure that households are able to cover 'housing and transportation' cost on a regular basis: e.g. the cumulative monthly payments for servicing a housing loan plus cumulative monthly transportation cost incurred by a household to access economic and social opportunities.

Moreover, the cumulative payment for both transportation and housing is geared towards achieving the objective of promoting developments at adequate locations and of ensuring

accessibility and connectivity to social and economic opportunities within cities (cf. Right to the City), thus preventing developments that do not meet the expectations of households and may remain unoccupied. Therefore, considering the trade-off between land and transportation cost does not only aid accessing better locations, thus reducing traffic congestion and environmental pollution, but also in meeting household demand for connectivity with and access to the city, thus reducing the risk of poor targeting and of a macroeconomic crisis / housing bubble. 31 Lastly, this trade-off is particularly acute for low-income and urban poor households who's income share required for transportation is relatively larger than that of MIG households. Table 2 presents stylized facts to illustrate that location with poor connectivity implies lower land but higher transportation cost – while the remote location later imposes high cost on society, both explicitly (e.g. trunk infrastructure cost) and implicitly (e.g. land consumption, environmental pollution, traffic congestion).

Table 2: Affordability at a location with poor connectivity

Source: authors' estimate based on expert interviews, literature review and international best practices, adapted from Rapid Urbanism (CC BY-NC-SA 4.0)

INCOME GROUP	MIG II	MIG I	LIG	EWS
Monthly income, typical	INR 1,25,000	INR 75,000	INR 37,000	INR 18,750
Transportation cost[32]	INR 5,000	INR 5,000	INR 5,000	INR 5,000
Payment capacity for housing	INR 31,250	INR 18,750	INR 7,500	INR 2,813
Cumulative cost	**INR 36,250**	**INR 23,750**	**INR 12,500**	**INR 7,813**
Income share for housing	**25%**	**25%**	**20%**	**15%**
Income share for transportation	4%	7%	13%	27%
Cumulative income share	29%	32%	33%	42%
Remaining household expenditures[33]	INR 88,750	INR 51,250	INR 25,000	INR 10,938
Income share for everything else	71%	68%	67%	58%

[31] The theoretical underpinnings are that, according to Alonso's monocentric land price model, the land cost at any central/accessible location is equal to the peripheral/rural land cost plus a location premium, the latter being equivalent to the savings in transportation cost that would be required to commute from the periphery to the premium location. This negative correlation of location and transportation cost is of central significance for housing policies: when applying for a mortgage, households qualify for a maximum amount, being the composite price for land, infrastructure and housing. Given the maximum amount, households can afford a larger house when using cheaper (e.g. peripheral) land; however, given the negative correlation of land and housing cost, they then incur long daily commutes which impose high cost on the household, both in terms of cash and time. Therefore, for example in California, brokers refer to this phenomenon as "drive to qualify".

However, if lower transportation costs are considered, then this frees up household expenditures for housing, so that households would be able to afford access to a relatively better location. In this case, society would suffer from less traffic congestion and the environment from less land consumption and carbon emissions.

Furthermore, some housing programmes (e.g. in Mexico) developed cheap peripheral land, with subsidized units not meeting demand and remaining unoccupied. Eventually, the state risks to subsidize such housing twice: first the peripheral units and second when bailing out developers and financial institutions that had invested in units that nobody wanted.

[32] E.g. INR 20 per day, 25 days per month per commuter, 2 commuters per household.

[33] Especially food, education, health, clothing but also savings for life-cycle events (e.g. wedding), gifts and leisure.

In contrast, at a relatively more central location, calculating backwards from the same cumulative cost (housing and transport) the reduction in transportation cost frees up payments that are affordable to finance access to better land. Table 3 illustrates that, at well-connected locations (or more generally where households are not required to spend heavily for transportation), the total package for land, infrastructure and housing may have a relatively higher total cost – and still impose the same regular payment as in less connected areas. Therefore, housing policies should abstain from defining a maximum price ceiling (which tends to lead to the resort to the cheapest, peripheral land, eventually imposing high costs on societies in the form of trunk infrastructure and negative externalities, such as traffic congestion and environmental pollution.

Table 3: Affordability at a location with good connectivity

Stylized facts to illustrate a concept: location with good connectivity can free up spending capacity for housing.
Source: authors' estimate based on expert interviews, literature review and international best practices, adapted from Rapid Urbanism (CC BY-NC-SA 4.0)

INCOME GROUP	MIG II	MIG I	LIG	EWS
Monthly income, typical	INR 1,25,000	INR 75,000	INR 37,000	INR 18,750
Cumulative cost (from Table 2)	**INR 36,250**	**INR 23,750**	**INR 12,500**	**INR 7,813**
Less reduced transportation cost[32]	INR 2,500	INR 2,500	INR 2,500	INR 2,500
Increased payment capacity for housing	**INR 33,750**	**INR 21,250**	**INR 10,000**	**INR 5,313**
Cumulative income share	29%	32%	33%	42%
Income share for transportation	2%	3%	7%	13%
Income share for housing	**27%**	**28%**	**27%**	**28%**
Remaining household expenditures[33]	INR 88,750	INR 51,250	INR 25,000	INR 10,938
Income share for everything else	71%	68%	67%	58%

Affordable housing project cost: maximum price ceilings

While a housing project at a location with poor connectivity involves cheaper land – which reduces project cost – it also imposes higher transportation cost, which will reduce payment capacity and thus shrink the maximum project costs that households can afford to pay after priority expenditures and after transportation cost: for example, INR 1,78,442 for EWS and INR 6,57,829 for LIG (Table 4).

In contrast, a better-connected location frees up transportation expenditures that are now available to pay for the better site; thus, the project cost still affordable is higher with a better site: e.g. INR 3,37,056 for EWS and INR 8,77,106 for LIG (Table 5).

Basically, households – as much as policy makers – face a trade-off between 'low land cost and high transportation cost' at the poor location or 'low transportation cost and high land cost' and a good location. The option of well-connected land, however, should be preferred from a public point of view, for consuming less land and incurring lower traffic congestion and pollution: two fundamental parameters of sustainable urban development, not just for global warming but especially for air pollution. Notably, the difference is most pronounced for low-income households, as transportation cost is a critical share of household expenditure.

Therefore, the approach is also a critical contribution to curb sprawl and to pay for higher densities at more central locations, which may require somewhat higher construction cost (e.g. for mid-rise instead of low-rise development). Furthermore, the approach will yield more realistic estimates of the co-financing capacity of households, given on the financial products accessible to them (with prudent, non-exaggerated expectations) – which is a precondition for building the housing finance ecosystem for EWS and LIG households.

Finally, this discussion and the sample calculation in the tables above and below shows that policies promoting affordable housing projects, such as through subsidies or density bonuses, need to assess the location implications on household budgets. While this assessment needs to occur on a case by case basis the procedures for the assessment can be standardized – and are not overly complex – as captured in the tables in this section.

Table 4: Price ceiling / affordable project cost at a location with poor connectivity

Stylized facts to illustrate a concept, using rent capacity from Table 3 and financial terms from Table 10.

INCOME GROUP	MIG II	MIG I	LIG	EWS
Rent capacity (Table 2)	INR 31,250	INR 18,750	INR 7,500 Emerging Housing	INR 2,813 Emerging Housing
Financial instrument	Mortgage	Mortgage	Microfinance	Microfinance
Interest rate (APR)	10.00%	12.00%	15.00%	18.00%
Amortization period	20 years	20 years	15 years	10 years
Loan amount	INR 31,92,586	INR 16,80,625	INR 5,26,263	INR 1,51,675
Downpayment share	30%	30%	20%	15%
Downpayment amount	INR 13,68,251	INR 7,20,268	INR 1,31,566	INR 26,766
Affordable project cost	**INR 45,60,838**	**INR 24,00,893**	**INR 6,57,829**	**INR 1,78,442**
Annual income	INR 15,00,000	INR 9,00,000	INR 4,50,000	INR 2,25,000
Income multiplier	3.0	2.7	1.5	0.8

Table 5: Price ceiling / affordable project cost at a location with good connectivity

Stylized facts to illustrate a concept, using rent capacity from Table 2 and financial terms from Table 10.

INCOME GROUP	MIG II	MIG I	LIG	EWS
Rent capacity (Table 3)	INR 33,750 mortgage	INR 21,250	INR 10,000 Emerging Housing	INR 5,313 Emerging Housing
Financial instrument		Mortgage	Microfinance	Microfinance
Interest rate (APR)	10.00%	12.00%	15.00%	18.00%
Amortization period	20 years	20 years	15 years	10 years
Loan amount	INR 34,47,993	INR 19,04,708	INR 7,01,684	INR 2,86,498
Downpayment share	30%	30%	20%	15%
Downpayment amount	INR 14,77,711	INR 8,16,303	INR 1,75,421	INR 50,558
Affordable project cost	**INR 49,25,705**	**INR 27,21,012**	**INR 8,77,106**	**INR 3,37,056**
Annual income	INR 15,00,000	INR 9,00,000	INR 4,50,000	INR 2,25,000
Income multiplier	3.3	3.0	1.9	1.5

Finding 4: Housing projects that strategically integrate with other development interventions have a high potential to expand households' capacity to pay for housing

Housing schemes can be nudged (integrated/aligned) with other urban and development initiatives to create synergies and to expand households' payment capacity. The previous analysis has already shown how important income, location and transportation are for housing. In addition, access to basic services (reducing household expenditures through formal utilities) and access to safety nets (reducing households risks) are critical measures that not only aid increasing spending capacity for housing but also reduce multi-dimensional urban poverty by building 'adequate habitats', instead of just 'adequate housing' (Finding 12).

A. **Reducing expenditures required for transportation,** for example prioritizing transit investments around inclusive urbanization and housing projects (or, vice versa, developing housing at locations that are well-connected to public transit or accessible by alternative transportation modes, particularly walking and cycling;

B. **Improving access to life-affirming livelihoods,** for example through skill building and access to livelihood finance, especially for the lowest-income households (e.g. below the World Bank's PPP USD 3.20 poverty measure) who can only afford a minor income share for housing and will face significant constraints in accessing housing finance; and

C. **Reducing expenditures required for utility charges,** for example by servicing informal communities with formal basic services, which tend to be more economical than informal services (e.g. economical piped water vs costly water tankers);

D. **Reducing households' vulnerability to income and expenditure shocks** through improved access to insurance, social security or alternative safety nets.34 Where appropriate, these options will be discussed in more detail in the following sections.

Section II – Expanding access to affordable housing finance

Households' access to low-interest, long-term and inclusive housing finance products is a major factor for households' capacity to access adequate housing, which is captured in the affordability equation:

disposable income x financial terms = financing capacity = affordable lump sum.[35]

Finding 5: Using income multipliers as a rule of thumb for determining housing affordability is not appropriate and contributes to policy failure; instead, proper affordability analysis requires considering both affordable payments for housing and access to finance for converting these payments into a lumpsum, then resulting in specific (often unexpected) income multipliers.

For this relationship, sometimes the income multiplier is used as a short-hand measure for affordability; however, this measure should not be used for policy framing, as it is purely the result of mechanic mathematical calculations that may be true for middle-income households in developed countries (Table 6), but definitely not so for the majority of households in India's emerging economy.

Table 6: Affordable project cost, based on conventional assumptions from developed economy
Stylized facts to illustrate a concept

ECONOMY / GEOGRAPHY	USA	USA	USA
Income group	MIG	MIG	MIG
Monthly income lower bound	USD 5,000	USD 5,000	USD 5,000
Monthly income upper bound	USD 10,000	USD 10,000	USD 10,000
Monthly income (selected)	USD 7,500	USD 7,500	USD 7,500
Income share (FOIR)	30%	25%	20%
Rent capacity	**USD 2,250**	**USD 1,875**	**USD 1,500**
Financial instrument	Mortgage	Mortgage	Mortgage
Interest rate (apr)	7.50%	7.50%	7.50%
Amortization period	30 years	30 years	30 years
Loan amount	USD 318,880	USD 265,734	USD 212,587
Downpayment share	30%	25%	20%
Downpayment amount	USD 136,663	USD 88,578	USD 53,147
Affordable project cost	**USD 455,543**	**USD 354,312**	**USD 265,734**
Annual income	USD 90,000	USD 90,000	USD 90,000
Income multiplier	5.1	3.9	3.0
Affordability rating	Still affordable	Affordable	Very affordable

Instead, Table 7 portrays the maximum project cost that is more typically affordable today: i.e. that may be reached by the majority of households in urban India when making prudent assumptions about payment capacity and financial access. Such assumptions are necessary in order to reduce and manage risks and, thereby, to aid enabling the housing microfinance market currently emerging in the nation.

[34] NB: beyond social security schemes and alternative safety nets (e.g. community-based solidarity mechanisms), the suggested promotion of flexible housing finance product in itself create a cushion against income and expenditure volatility. This is because any prepaid amounts (that are ahead of the loan schedule) de-facto serve as savings that households can use in emergency situations. For a further discussion see below.

[35] For further details refer to Figure 19: Housing affordability as a match of demand, finance and supply, enabled through governance in Annex 2.

Table 7: Currently affordable project cost, based on prudent and inclusive assumptions

Stylized facts to illustrate a concept

ECONOMY / GEOGRAPHY	INDIA	INDIA	INDIA	INDIA
Income group	**MIG II**	**MIG I**	**LIG**	**EWS**
Monthly income lower bound	INR 1,00,000	INR 50,000	INR 25,000	INR 12,500
Monthly income upper bound	INR 1,50,000	INR 1,00,000	INR 50,000	INR 25,000
Monthly income (selected)	INR 1,25,000	INR 75,000	INR 37,500	INR 18,750
Income share (FOIR)	25%	25%	20%	15%
Rent capacity	**INR 31,250**	**INR 18,750**	**INR 7,500**	**INR 2,813**
Financial instrument	Mortgage	Mortgage	Emerging Housing microfinance	Housing microfinance
Interest rate (apr)	10.00%	12.00%	18.00%	24.00%
Amortization period	20 years	20 years	10 years	2 years
Loan amount	INR 31,92,586	INR 16,80,625	INR 4,04,468	INR 49,168
Downpayment share	30%	30%	20%	10%
Downpayment amount	INR 13,68,251	INR 7,20,268	INR 1,01,117	INR 5,463
Affordable project cost	**INR 45,60,838**	**INR 24,00,893**	**INR 5,05,585**	**INR 54,631**
Annual income	INR 15,00,000	INR 9,00,000	INR 4,50,000	INR 2,25,000
Income multiplier	3.0	2.7	1.1	0.2

Finding 6: Small loans perform the worst, indicating a need for developing pro-poor housing finance products.

As per NHB report (2018), smaller loans have a significantly poorer performance than other loans: while loans of up to INR 2 lakh face a Gross Non-Performing Asset (GNPA) ratio of 11.33 percent, the one of loans of more than INR 2 and up to INR 5 lakh already decreases to 3.51 percent. Moreover, the larger the loan the better is the performance, eventually declining to 1.21 percent of loans above INR 25 lakh. While the analysis of the reasons for this asymmetric performance is beyond the scope of this report, anecdotal evidence suggests that low-income households tend to be overburdened with debt while the financial sector is asked to make these loans, however facing constraints in collecting non-performing debt (e.g. foreclosing a low-income home is politically difficult). In any case, there is a need for developing inclusive low-income housing finance products that mitigate costs and risks both of households and of lenders and as a precondition to expand credit to EWS and LIG at a large scale.

Figure 6: Performance of individual housing loans with public sector banks

Amounts are in INR crores. Source: NHB, 2018, table 4.12, based on compilation of data submitted by public sector banks

Housing Loan Slabs (INR)	2016-17			2017-18				
	Disbursement	Outstanding	GNPA (%)	Disbursement	Growth Y-o-Y (%)	Outstanding	Growth Y-o-Y (%)	GNPA (%)
Up to 2 lakh	1,224	5,940	11.55	995	-18.71	6,619	+11.43	11.33
> 2 lakh to 5 lakh	4,868	25,768	3.22	3,206	-34.14	24,407	-5.28	3.51
> 5 lakh to 10 lakh	17,173	83,160	1.82	14,740	-14.17	86,289	+3.76	1.99
> 10 lakh to 25 lakh	52,149	2,25,984	1.14	59,193	+13.51	2,58,619	+14.44	1.34
> 25 lakh	67,926	2,45,992	1.21	1,04,965	+54.53	3,16,320	+28.59	1.44
Total	1,43,340	5,86,844	1.46	1,83,098	+27.74	6,92,254	+17.96	1.64

Pro-poor housing finance products can aid minimizing risk and maximizing contributions towards housing investments: flexibility, frequency and convenience are critical. International best practices in financial services of the poor show how to expand the financial access of households with low to moderate income that face high priority expenditures and high risk from volatile income and expenditures – while they have little to no financial cushion (savings or insurance) to manage these risks. Rutherford (1999; Text Box 6) highlights pro-poor characteristics of financial products. Amongst these, frequency and flexibility are possibly the two most important factors for mobilizing larger payments without unduly increasing households' risk exposure. Flexibility aids the financial inclusion of households. Flexibility reduces the real or perceived risks that are reasons, for which financial institutions may exclude households from credit – or for which households themselves may opt out of or reduce their level of debt. Households facing stringent payment requirements need to budget a larger, arguably unnecessarily large, security cushion in order to be able to maintain payments also under stress; therefore, they can access only suboptimal smaller loans. Flexibility, convenience and frequency of the financial product are critical for maximising household resources for housing, without unduly increasing the vulnerability of the poor. Resource mobilisation is important for any basic good, but especially for housing for its capital intensiveness; however larger loans increase households' vulnerability, which needs to be managed and mitigated. Households with access to risk management are capable of taking on larger debt. For example, Indian economist Rohini Pande at Harvard, along with her colleagues Holland and Field (2016) argue that micro-entrepreneurs with access to risk mitigation are eventually more successful. By analogy, applying their findings to housing suggests that lower- risk flexible loan products would unlock larger payment capacity for housing investments.

Text Box 6: Rutherford's Principles for Pro-Poor Financial Intermediation. Source: Rutherford, 1999

i. Suit the poor's capacity to save or repay in small sums, of varied value, and as frequently as possible.
ii. Deliver to the poor's demand for flexible access to lump sums when they need them.
iii. Be convenient and promote discipline, e.g. by being local, frequent and quick.
iv. Be easy to grasp, also for illiterate people.
v. Be transparent, fair and affordable, inter alia by avoiding unnecessary paperwork or transaction costs.

Considering the above, the promotion of housing (micro) finance products that build alternative safety nets into their financial terms would reduce the risk exposure of vulnerable households and, thus, increase their payment capacity for housing. Flexible loan products reduce the credit-related risks for households, thus allowing to take on larger debt. Examples include the options to prepay without penalty (e.g. the World-Bank-financed Vietnam Urban Upgrading Program), to skip payments (once an account is prepaid) or even to withdraw any pre-paid amount (as proposed for SEWA's housing finance company; Annex 5), or solidarity funds, charging an interest rate spread which communities can use to cover payments of distressed families. (Boonyabancha, 2004; Mitlin, 2008)

Lastly, a word of caution: regulation involving the ceiling of interest rates should be avoided; instead, means to build competitive markets should be considered. Eventually, competition will control interest rates at efficient and necessary levels. Banking the poor is more process- intensive than banking high-income clients. While the intensive processes are costlier and thus require higher interest (Annex 4) the poor require more frequent and convenient forms of delivery, such as weekly door-step collections – and they are willing and capable of paying for it, given that they face much higher opportunity cost. For the same reasons, other successful goods and services for the Bottom of the Pyramid (cf. Prahalad, 2009) charges relatively higher prices: e.g. shampoo offered in small sachets has a much higher unit cost per volume than that offered in larger portions. In addition, providing financial services to households with informal properties and/or livelihoods is often perceived to be riskier, thus requiring a higher return on investment. Therefore, policy makers should resist the temptation of regulating interest rates, which can hurt a nascent market as this would lead to the exclusion of clients who cannot be profitably served with the top-down-stipulated terms. Instead, do assist the building of effective markets in which

competition for clients will reduce interest rates, such as reducing/managing the market risks through the provision of basic services (see Finding 8) and improvement of tenure security (see section on governance) or enabling access to long-term low-interest liquidity (as follows).

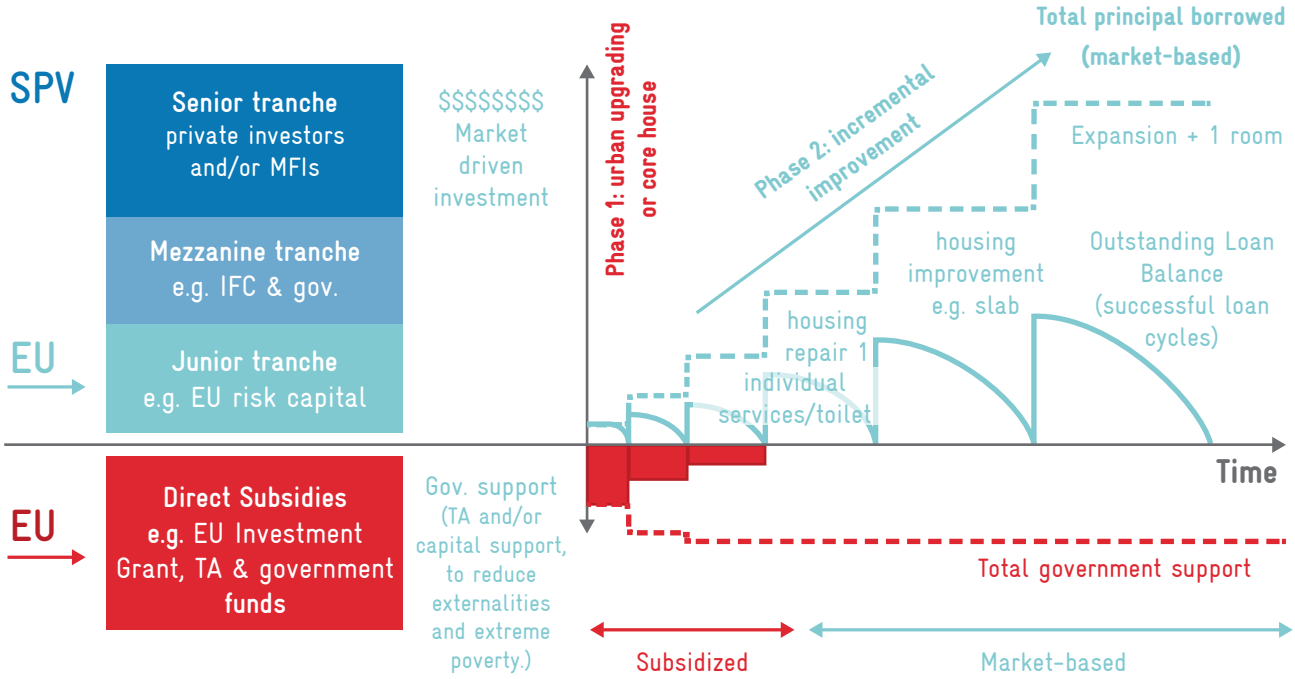
Finding 7: Expansion of housing finance for EWS and LIG requires access to liquidity for those lenders that really serve this market segment.

To support the development of an emerging low-income housing finance market, a liquidity facility may provide refinancing. Affordable housing is a large and underserved market in India. The findings and recommendations provided in this report – across demand, finance, supply and governance sections – have the potential of unlocking this market: consequently, while the lending risk would be reduced, the demand for affordable housing microfinance would increase significantly. As such, financial intermediaries would require refinancing to service the expanding market, while their improved (risk) profile would permit such refinancing. An adequately sized liquidity facility could be hosted with NHB; alternatively, the facility may be hosted with an institution naturally closer to lowest-income lenders. For example, the Small Industries Development Bank of India (SIDBI) who facilitated the building of the microfinance sector in the nation.

Figure 7 illustrates the potential structure of a Special Purpose Vehicle (SPV) that leverages market-based investments in order to provide liquidity for refinancing lenders that service EWS and LIG – particularly NBFIs, such as MFIs and credit and savings associations, and possibly also formal banks and housing finance companies that are willing to truly move down in the market. To go to scale, the facility is best built with differentiated share classes that correlate with a risk and return cascade: senior tranche shares are prime, taking on lower risk and earning moderate returns, while the junior tranche constitutes the risk capital,

Figure 7: Risk capital for housing microfinance

NB: the top left portrays the structure / share classes of a liquidity facility, the top right the case of the Parivartan Slum Upgrading Scheme (Annex 6) enabling market-based investments by households through reducing and managing market risk (tenure security, infrastructure provision, financial track record), the bottom represent initial subsidies that are phased out as the ecosystem transitions to a market-based approach. Source: UN-Habitat, 2018, adapted from Nohn, Rapid Urbanism (CC BY SA NC 4.0).



typically provided by public actors in exchange for higher economic returns. 36 For example, the European Commission (EC) and the Asian Development Bank (ADB) have used a European Union (EU) blending mechanism to set up the Microfinance Initiative for Asia Debt Fund (MIFA) (European Commission, 2017), which may inform the setting up of a similar institution for housing microfinance in India. Once the SPV is created, GoI can invest at its own cost of funds so that this investment is largely budget neutral and, thus, scalable without undue market distortions.[37]

While the liquidity need is large, initial public investments required would be moderate and over time an increasing share could be leveraged on the private market. For example, according to Finding 1, the identified national need is 93 lakh urban housing units per year. Further, as per Table 8, some 80 percent of this need falls into the EWS and another 15 percent in the LIG category.

Albeit using different sources, the estimates in Table 8 are in line with the estimates published by Das et al., 2018. This income distribution would imply a need of 74.4 lakh housing units for EWS and another 14.0 lakh for LIG, respectively: 88.4 lakh housing units in total. Now, assume a co-financing need of INR 2.50 lakh for EWS units and of INR 9.45 lakh for LIG units, resulting in a total liquidity need of INR 2 lakh crore– per year (Table 9).

However, obviously this total annual need would not be addressed through a single, emerging programme initially. Instead, for example addressing only 20 percent of this need over the 4- year period until 2022 would require INR 1.6 lakh crore. If lenders would be able to refinance 90 percent of their liquidity facility with the SPV, then the SPV would need to encompass INR

1.44 lakh crore. Of this amount, again government may need to allocate only a portion (e.g. mezzanine tranche in Figure 7) while the reminder may be financed from risk capital (e.g. EU blending for junior tranche) and the senior tranche on the capital market. Until proving the concept, the government allocation may need to be relatively large; afterwards, the majority share may come from the market. To start this innovation may require allocation of approximately INR 1 lakh crore during the current government period.

Table 8: Household income distribution in urban India, 2015

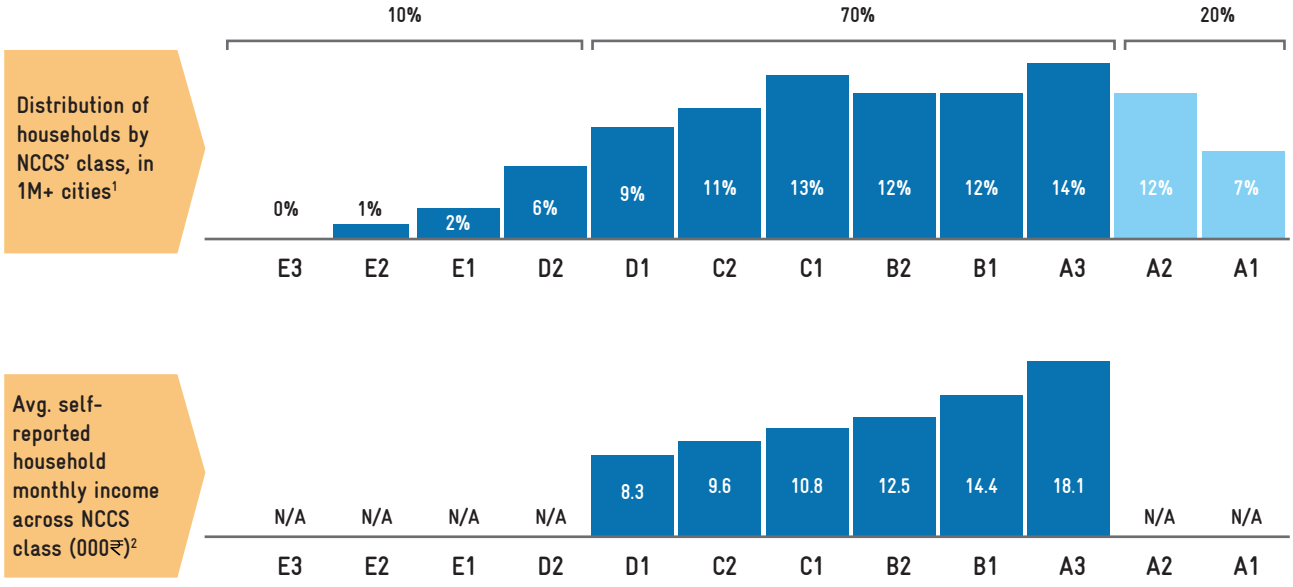
Source: left Statista38; right (income groups): approximation by the other, based on values on the left. NB: In 2015, PMAY was introduced. To get an improved understanding of today's income distribution would require access to better and more recent data.

INCOME [INR]	DISTRIBUTION	CUMULATIVE	INCOME GROUP	INCOME [INR]	DISTRIBUTION
Up to 5,000	9.3%	9.3%			
5,001 - 7,500	15.3%	24.6%			
7,501 - 10,000	20.3%	44.9%			
10,001 - 20,000	28.5%	73.4%			
			EWS	Up to 25,000	some 80%
20,001 -50,000	21.7%	95.1%	LIG	25,001 – 50,000	some 15%
50,001 - 100,000	4.4%	99.5%	MIG I	50,001 – 100,000	4.4%
Above 100,000	0.6%	100.0%	MIG II & HIG	Above 100,000	0.6%

[36] Economic returns is not necessarily equal to financial returns, but may include financial, social and environmental returns (triple bottom line).

[37] Note that a large SPV may increase the overall debt of the country, which may change the cost of funds. However, this is not expected during initial stages (i.e. as long as the SPV is small) and the problem is later on addressed through leveraging private equity in different share classes.

Figure 8: around 70 percent of households in Indian cities with 1M+ population may have a monthly income between INR 9,000 and INR 20,000
Credit: Das et al., 2018, figure 12



We estimate 9K and 20K to be closer to actual averages as self – reported income is typically under reported

Table 9: Annual liquidity need, assuming the full magnitude of the housing need and innovative financing, including a fiscally responsible subsidy scheme
NB: annual need is based on Finding 1; distribution of need across income groups is based on Table 8; financing mechanism is based on Table 13. Source: authors' calculations

INCOME GROUP	ANNUAL HOUSING NEED [HOUSEHOLDS]	UNIT COST [INR]	DOWNPAY-MENT [INR]	DOWNPAY-MENT SUB-SIDY [INR]	LOAN [INR]	ANNUAL LIQUIDITY NEED [INR] CRORE
EWS	74,40,000	4,78,773	27,877	2,00,000	2,50,896	1,86,667
LIG	1,40,000	11,81,378	2,36,276	0	9,45,102	13,231
				SUM – total annual liquidity need:		**1,99,898**

In conclusion, to enable households' financial inclusion requires (i) the innovation of pro- poor financial products (Finding 6) and (ii) the provision of sufficient liquidity to financial intermediaries offering these products to households (Finding 7). Table 10 shows the level of affordable project cost that may be within reach with realistic medium-term innovations in housing finance. This requires addressing the above-identified constraints – pro-poor products and access to liquidity. If so, for example a three-fold increase in affordable project costs from today's INR 55,000 (Table 7) to eventually INR 1.68 lakh (Table 10) may be possible for typical EWS households.

[38] https://www.statista.com/statistics/653924/average-monthly-urban-household-income-india

Table 10: medium-term opportunities for increasing affordable project cost through financial innovation

The table shows market-based affordability (without subsidies). For affordable project cost with an integrated subsidy regime, please refer to Table 13. Nota bene: The below table shows stylized facts to illustrate a concept.

ECONOMY / GEOGRAPHY	INDIA	INDIA	INDIA	INDIA
Income group	**MIG II**	**MIG I**	**LIG**	**EWS**
Monthly income (selected)	INR 1,25,000	INR 75,000	INR 37,500	INR 18,750
Income share (FOIR)	30%	25%	20%	15%
Rent capacity	**INR 31,250**	**INR 18,750**	**INR 7,500**	**INR 2,813**
Financial instrument	Mortgage	Mortgage	Emerging Housing Microfinance	Emerging Housing Microfinance
Interest rate (APR)	10.00%	12.00%	15.00%	18.00%
Amortization period	20 years	20 years	15 years	10 years
Loan amount	INR 31,92,586	INR 16,80,625	INR 5,26,263	INR 1,51,675
Downpayment share	30%	30%	20%	10%
Downpayment amount	INR 13,68,251	INR 7,20,268	INR 1,31,566	INR 16,853
Affordable project cost	**INR 45,60,838**	**INR 24,00,893**	**INR 6,57,829**	**INR 1,68,528**
Annual income	INR 15,00,000	INR 9,00,000	INR 4,50,000	INR 2,25,000
Income multiplier	3.0	2.7	1.5	0.7

However, to effectively reach EWS and LIG households, eligibility requirements for credit will need to be adjusted to embrace semi-formal livelihoods and properties. This is further discussed in the following sections: especially, the reframing of secure tenure within the tenure continuum (see governance), and basic services provision de-coupled from tenure status and in exchange for nominal co-payments (see supply) are effective means for managing risks and, consequently, in enabling inclusive markets and public schemes with softer eligibility requirements.

Section III – Enabling housing supply to effectively respond to the identified demand

Finding 8: There is a high need to provide basic infrastructure in all under-serviced communities, independent from land tenure status.

Apart from the public responsibility to improve urban health and to address soaring basic needs (SDG 6), the provision of basic services is also a means to increase the spending capacity of households. That is because informal services (e.g. with water tankers) may be more costly, and formal services tend to provide a higher quality, thus reducing health risks and related expenditures. The net result is a higher social welfare and an increase in households' spending capacity – also unlocking resources available for housing and eventually for tenure regularization.39

Moreover, inter alia to improve public health and to increase households' payment capacity and to unlock housing investments, the service package should at least include water and sanitation (SDG 6) and solid waste management (SDG 12) to protect the commons (public health and environmental protection). However, the package may also include other items, especially linear infrastructure networks such as street lights, street paving and/or drainage – especially if their installation nudges with on-grid water and sanitation – and productivity-increasing electricity connections and inhouse electrification. Consider most items, such as wat/san, a public responsibility, e.g. for addressing collective action problems when improving public health, but consider charging minimal/affordable co-payments with the two objectives of ensuring community buy-in and supporting households in developing a financial history (through recorded co-payments), and reducing/managing their risks to enable their access to finance.

Furthermore, it is strategic de-link basic service provision from the question of tenure and permissible land use. Firstly, in regard to land tenure, the public interest (public health, environmental protection, inclusive growth) cannot be held ransom for a lack of clear land titles. At least basic services ought to be provided everywhere throughout the city to guarantee public health. For example, the historic case of the Parivartan Slum Upgrading Scheme shows that while government's infrastructure provision itself signals the market that the area is worth investment, and while, a no eviction guarantee further reduces perceived and real risk related to the property; however, many households will be excluded for lack of a financial history, lacking payment slips from formal employment as much as records from earlier savings and credit. In this context, affordable co-payments are a strategic means to screen their payment capacity and enable a product graduation cycle, common in microfinance, in which performing households graduate to access to higher level products with lower interest and longer tenure – both being critical factors for housing as discussed in the previous section. (Figure 21 & Annex 6) Today, the Jaaga mission in Odisha is a modern example for revitalizing the provision of basic services during In-Situ Slum Upgradation; there is an opportunity for mainstreaming such initiatives in national policies, as follows.

Finding 9: 'In-Situ Slum Upgradation' (ISSU) is a useful and necessary complement to 'In-Situ Slum Redevelopment' (ISSR).

For some existing slums the 'land as a resource' cannot unlock sufficient land value to pay for the intervention. This may be where either the market value of land is too low, or where dwelling densities are too high (so that the necessary number of dwellings to rehouse slum dwellers would be too costly), or, where land tenure disputes (see Finding 8) prevent any agreement. In these cases, in-situ upgradation may be a suitable approach to address informal settlements (clusters)

[39] For example, Rapid Urbanism uses the rule of thumb that 30 percent of any increase in net income (i.e. income less priority expenditures) is disposable for housing. This rule lets the income share for housing converge with 30 percent, which is mathematically consistent with the notion that middle-income households are eventually able to afford 30 percent of their income for housing. The other 70 percent of the net income increase can be spend on other items, including a better food staple, health or education.

that lack basic services, preparing the upgrading of individual substandard homes under BLC and CLSS, depending on households' income level. ISSU may be based on, for example the historic experience of Slum Networking Programmes, such as the internationally recognized best-practice Parivartan Slum Networking Programme from the PM's home state (Annex 6).

Finding 10: There is a large need to expand housing supply for EWS and LIG households– possibly through adaptations of the AHiP vertical, possibly through complementary initiatives.

Interviewees unanimously explained that AHiP tends to mainly deliver to MIG – while only few LIG and EWS households would be reached. One of the main reasons was that the cost of the housing units delivered under the scheme would not be affordable to EWS and LIG households. (Also many interviewees stated those EWS and LIG households included under the vertical likely underreport their income. We were neither able to verify nor to reject that claim; however, for a discussion on affordable project costs, please refer to Finding 2 & Finding 5.) At the same time, private builders – a key stakeholder partner and the PPP approach under the AHiP vertical – feel that a more affordable product would make it harder to market and sell the for-profit component. Lastly, another reported reason is that most EWS and many LIG households are excluded by lenders, for lack of eligibility, lacking a formal/stable income and financial history. (For a discussion on expanding financial access, please refer to Finding 6 & Finding 7)

Solving the identified challenges within the AHiP vertical itself seems difficult, albeit not impossible. On the one hand, inducing the private sector to deliver housing units that are truly affordable to EWS and LIG households40 would imply low (initial) housing standards that would be perceived to risk developers' business model. On the other hand, increasing the subsidies (so that households can afford higher standards) would increase fiscal costs and also risk further distortion of markets. One way out may be to require developers handing over a portion of residential lands to the public (like conventional land pooling schemes practiced in India: e.g. in Gujarat, government captures about 10 percent of the land for affordable housing), which can then be developed by government. However, to be an effective instrument for land supply for affordable housing, all lands would need to be quickly developed, raising all questions associated with the release of public lands for affordable housing – while not necessarily eliminating the business concerns around standards.

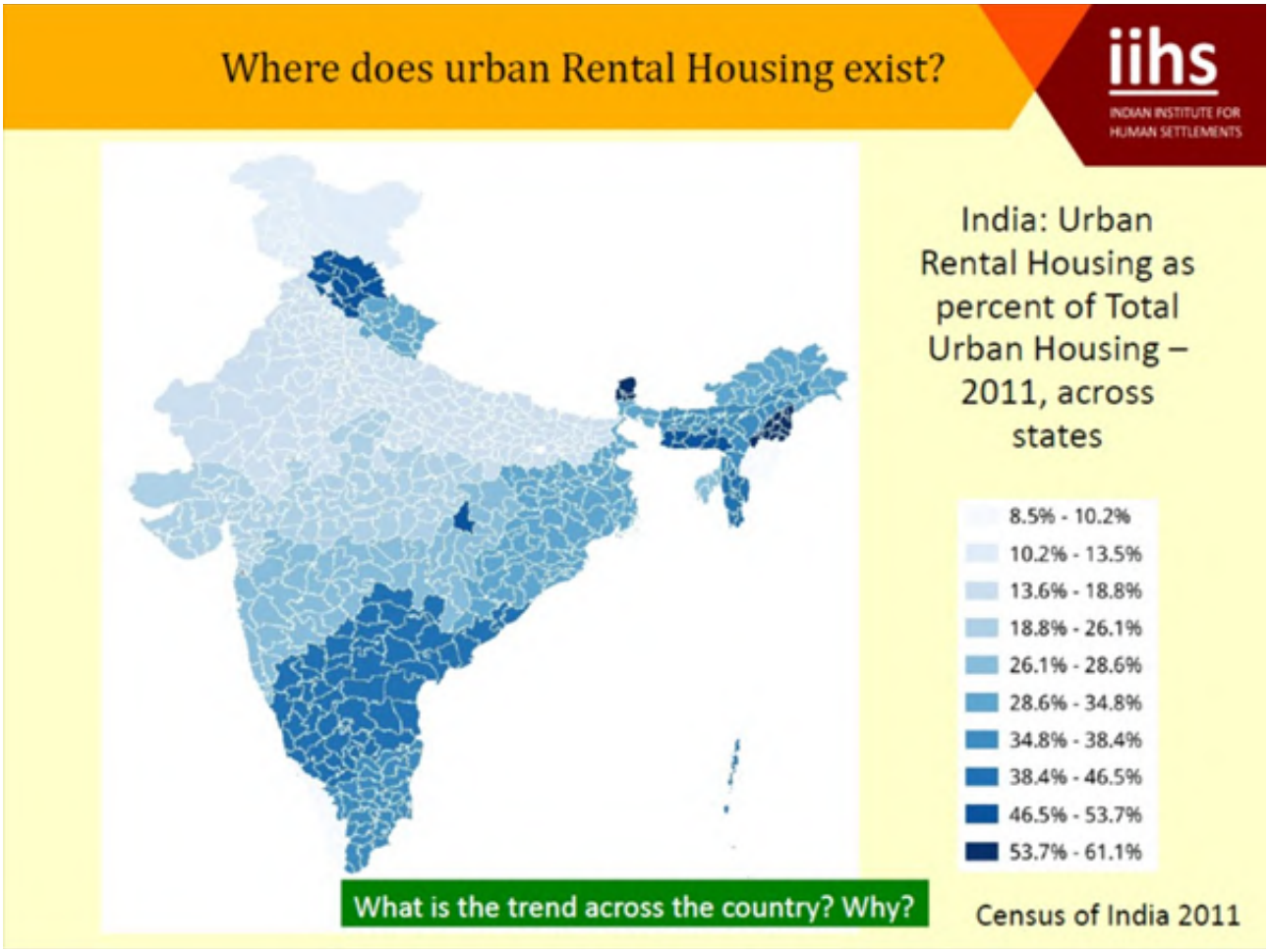
In conclusion, there is not only a need to reconsider the parameters of the AHiP vertical under PMAY, but also to explore at least two alternatives, which are discussed hereafter: rental housing and new settlements providing access adequate 'habitat and housing'.

Finding 11: There is a need for rental housing; small-scale private landlords appear to be the most promising investee for any public programme.

Especially for the poorest urban households but also, more generally, for the many households that may require a temporary residence – such as migrants, construction workers or students – rental housing may not just be the only viable but also the preferred housing option. According to the rental housing task force (as presented in Harish, n.d.), demand for rental is mainly from permanent residents (mid to low income), temporary residents (e.g. students or workers), or through enterprises seeking to find adequate accommodation as a staff acquisition and retention strategy. Consequently, according to the 2011 Census, the share of urban rental housing ranges between 8.5 percent only and up to 61.1 percent (Figure 9, ditto), showing the relevance of rental as a means/category for access to adequate housing overall. Internationally, rental housing accounts for more nearly 60 percent of housing in Western Europe and OECD countries and approx. 50 percent in China (UN-Habitat, 2003, ditto). As such, government should pursue adequate steps in promoting urban rental housing.

[40] Approx. INR 4 lakh for EWS (depending on the access to finance and subsidies; e.g. see Table 10 or Table 13) and INR 9 lakh for LIG (ditto).

Figure 9: Prevalence of urban rental housing in India
Source: IIHS presentation; raw source: Census 2011



Small-scale private landlords appear to be the policy alternative to be supported for mainstreaming/improving bottom-up rental housing options, especially for EWS and LIG households. According to the rental housing task force, supply in India is provided through individual landlords, institutions, hostels and employers. Amongst these, private landlords stand out as an agent providing the single largest share. For example, according to the Census 2011 (ditto), 26.3 percent of all housing in slums is rental, and most of these rental units is safely assumed to be small-scale private rental. When studying the international experience, for example in Germany small-scale providers account for two third of all rental housing while private housing corporations, housing cooperatives and public housing account for only one third, collectively. (OTB Institute, 2011, ditto). Moreover, small-scale landlords may also be a suitable investment vehicle for, typically, maintain close relationships with their tenants; however, in some cases these relationships may become exploitative, which is to be addressed by legislation, such as the Model Tenancy Act. Furthermore, the terms of the rental housing scheme need to exact from any beneficiary landlord that rent charged be set at affordable levels for a stipulated time. Overall, the subsidy should be smaller than that used to create ownership housing, for example under BLC and CLSS, and be in line with a regressive subsidy regime (Finding 26). Lastly, housing finance and technical assistance for construction may be delivered through the same mechanism as BLC and CLSS.

In contrast, large-scale public rental does not appear to be a strategic choice for India. Probably, it would absorb government capacities for operation and management that are no- doubt better invested for unclogging the pipes of land, infrastructure and housing sector at large, rather than for the rental subsector. In addition, the experience of large-

scale public social housing provides quite a mixed point of view, with many schemes facing difficulties in operation and maintenance, possibly rendering estates to be publicly owned slums, as well as other examples where affordable rent – difficult to increase for political reasons – would not even cover operation and maintenance costs over the long-term, thus implying a fiscal cost (net present value) of the housing subsidy that is even larger than the alternative cost of handing over a fully subsidized unit just after construction. Again, for example the experience of Germany shows that a nation can build a large rental market without relying on public rental: while ownership housing accounts only for 40 percent of the market, public rental housing itself accounts for only 5 percent of all housing or 9 percent of rental housing, respectively. (OTB Institute, 2011, ditto). That said, other institutional solutions – such as employer- provided rental housing (e.g. workers' dormitories) or educational institutions (e.g. student and teacher housing) – may be viable complements to promoting small-scale landlords. However, financial support (subsidies) to these providers may be generally lower, as for example (salaried) employees (to be retained through employer-provided rental housing) are typically already better off than most EWS households; on the other hand, the case may be different, for example when targeting migrant construction workers.

Finding 12: Households need adequate 'habitat', not just adequate 'housing', at a large scale to provide inclusive alternatives to new slum formation.

'Housing' programmes focused in dwelling units fail to make a critical contribution to development. Few have framed it better than Hausmann (2013) who directs Harvard's Center of International Development and, as a former Minister of Finance and Minster of Development Planning of Venezuela, understands well the academic, professional and political point of views: people need access to cities' economic, social and physical networks –i.e. access to 'habitat' instead of just access to 'housing'. Moreover, 'economic networks' are inter alia the labour market/employment as much as the transportation system getting people to jobs, 'social networks' include education, health, cultural and recreational amenities, and 'physical networks' include typical infrastructure networks, such as basic services of water, sanitation, drainage, electricity, streetlights.

In this context, the lack of a 'housing supply' mechanism that is directly embedded within a larger 'habitat supply' mechanism needs to be overcome. To date, PMAY relies on AHiP as the sole vertical that supplies housing to the growing number of urban households. While making a meaningful contribution, AHiP is however limited by the challenges identified above. To overcome this constraint and to expand supply to the necessary level, this study identifies a need for increasing integrated urban development directly through public action – i.e. with the state acting (also) as a 'provider', rather than just as an 'enabler'. This identified need is in line with recent international conclusions: (i) market-based strategies for housing (as per the mainstream mechanism after the Washington Consensus) tend to leave the poor alone41; (ii) earlier anticipatory strategies, e.g. sites and services, have been successful42; and (iii) such strategies are now returning on the policy menu43. For example, the proposed TNHB developments in Uchapatti-Thoppur and Thirumazhisai would fall under this category, and there is a need to expand this approach.

Moreover, there is a need to promote mixed-use, mixed-income, mixed-housing development. In this context, the separation of different agencies delivering to different income groups, such as the split between TNSCB (responsible for EWS) and TNHB (responsible for LIG and MIG) needs to be seen critical, albeit both entities already collaborate, for example in the development of mixed-income townships (e.g. proposed developments in Uchapatti-Thoppur and Thirumazhisai) where TNHB leads the urbanization project and executes the LIG and MIG subcomponents while handing over land for the EWS component to TNSCB. To be clear, such collaboration is a strong positive; however, the different income groups may be better integrated/mixed amongst themselves as well as with other (e.g. commercial) land uses. In this context, the integration with higher-value land uses, such as commercial and manufacturing, can make a critical contribution to financing, given the cross- subsidy potential through differentiated land pricing. At the same time, mixed-use mixed- income developments provide local job opportunities and thus reduce the need for transportation and urban resource consumption footprints.

Human settlements need to be at adequate locations. This can be achieved by either (i) paying a fair (relatively higher) price for already well-connected land, or by (ii) investing in transportation and trunk infrastructure to service new neighbourhoods on economical land, or by (iii) developing new neighbourhoods in conjunction with economic and social land uses nearby, for example linking industrial corridors with larger urbanization and housing developments. Furthermore, it should be noted that these instruments should not be part of a housing policy (or project) in isolation, rather it needs to link with other policies, such as an industrial policy – "Made in India" requires adequately housing the labourer – and innovations in land management.

Finding 13: 'Habitat and housing' and 'urban transport' require deeper integration and alignment – with strong co-benefit potential.

As much as there is a need for Transit-oriented Development (TOD), for example increasing densities along transportation corridors, there is a need for Housing-Oriented Transportation (HOT[44]). TOD has been mainstreamed as a concept and, thus, requires little explanation. (For a contemporary reference on TOD refer to the, inter alia, by UN-Habitat, GIZ and ICLEI endorsed TOD Standard 3.045). In regard to housing, it means that land along transit corridors should be zoned up to accommodate high-density residential. In analogy, HOT means that transportation investment can be used strategically to connect new 'adequate habitat and housing' projects to the city, right from inception of planning any housing projects: for example, greenfield developments on the periphery only become socioeconomically viable if they have transport linkages. For example, In Jakarta, Indonesia the BRT and metro system includes feeder buses that specifically service affordable housing projects (Figure 10).

Synergistically, land value increases arising from public transit investments can also be exploited for financing the mobilizing of land. Peripheral land without a transportation link would be cheap but government has the power to strategically enhance its value through a transportation project. The value increase can be captured to pay for the project. In conclusion, targeted transportation investments benefit housing and planning for rapid urban growth, reducing the cost of commute and the location premium of well-located land – while the value enhancement arising from the transportation investment (windfall) can be leveraged to also benefit the affordable housing component.

[41] New Shelter Options. In: Asian Development Bank. (2011). Inclusive Cities (Urban Development Series), p. 89

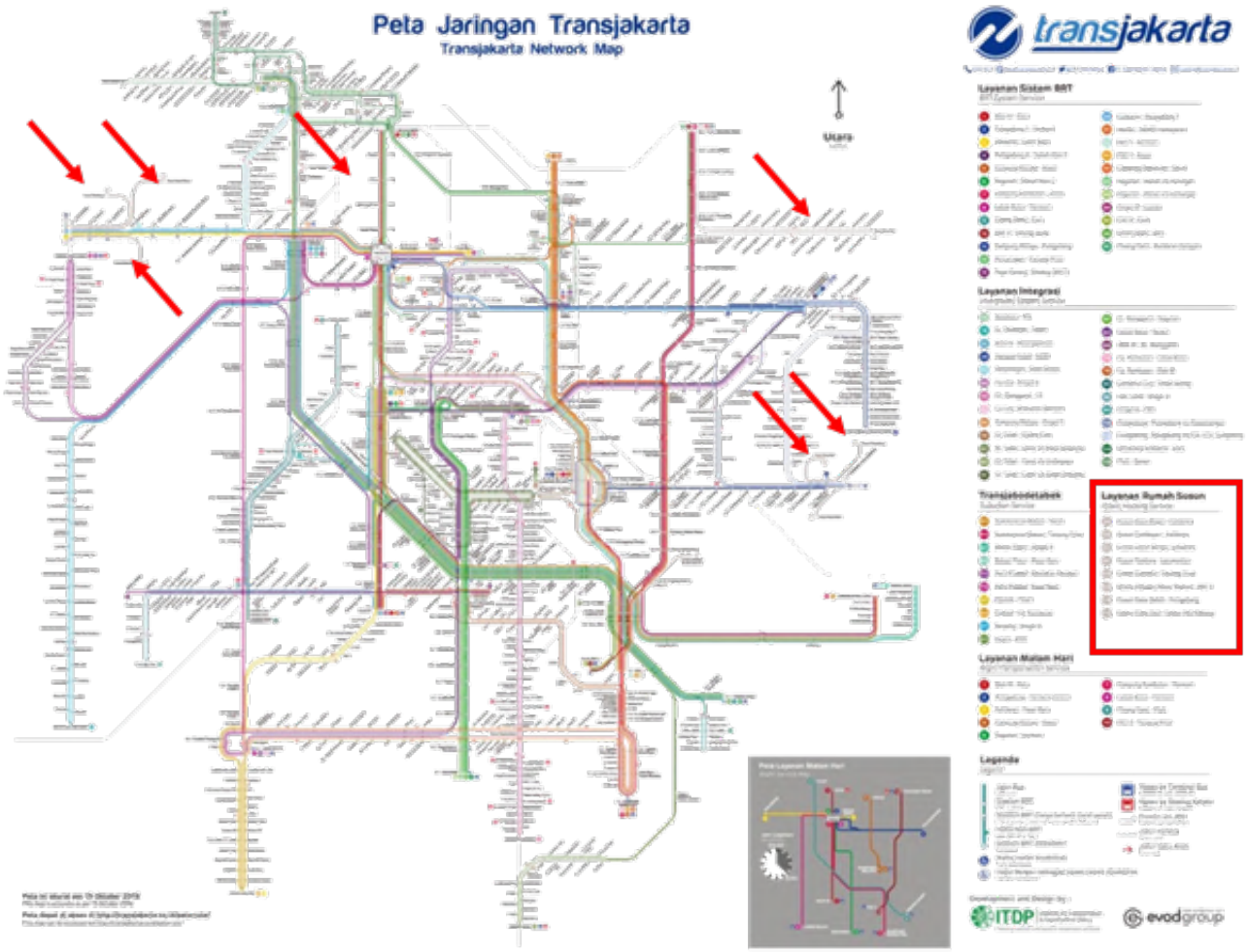
[42] Kathryn E. Owens, Sumila Gulyani, Andrea Rizvi. Success when we deemed it failure? Revisiting sites and services projects in Mumbai and Chennai 20 years later. In: World Development, 3 March 2018.

[43] E.g. the 500-million-dollar World Bank loan preparation for a housing programme in Indonesia, or a recent sites and service demonstration project in Dar Es Salam funded by the World Bank.

[44] Not an officially used term, but coined by the authors to emphasize the analogy with TOD.

Figure 10: Transjakarta mass transit map, including feeder system to connect public housing projects

NB: The red arrows point to some of the feeders (in light grey), and the red box in the map's key points to the multiple feeder lines exclusively planned for connecting housing projects.



Finding 14: There is a need for diversification in planning instruments and for nudging the former with regulatory and fiscal measures capable of mobilizing land at the required magnitude.

The public may rely on a coordinated set of land supply mechanisms. To mobilize the required land requires pro-active urban planning at a large scale (i.e. a scale that is meaningful if compared with the amount of land required to host the growing and increasingly wealthy urban population; Finding 1), anticipating urban growth through planned city infill (brownfield, slum upgrading, urban renewal) and planned city extensions (greenfield). Under urban planning falls the assembling, servicing and zoning of land for development. However, government also has regulatory and fiscal instruments at its disposal, as further discussed in the following governance section. The larger set of instruments/strategies includes but is not limited to:

- **Deregulation of development control regulation,** improving the usability of land and permitting dense developments, thus substituting for mobilizing new lands, which is further discussed in the Governance Section below.

[45] https://itdpdotorg.wpengine.com/wp-content/uploads/2017/06/TOD_printable.pdf

- **Release of underdeveloped land,** especially through fiscal measures (taxation of land), which is also further discussed in the Governance Section below.
- **Affordable Housing in Partnership (AHiP)** relying on Public-Private Partnerships and exacting land for affordable housing, with the limitations of catering mostly to MIG households (as discussed above).
- **In-Situ Slum Redevelopment (ISSR)** is suitable for improving and densifying higher value slums, thus effectively adding units to the housing stock and serving as a substitute for zoning and servicing new land for development. While a critical instrument in the repertoire, there is a need for complementing ISSR with In-Situ Slum Upgradation (ISSU) to improve slums where the unlocked land value is insufficient (as discussed above).
- **Land Pooling and Readjustment (LPLR)**, for example in form Gujarat's Town Planning Schemes (TPS, mostly applicable to new areas) and Local Area Plans (LAP, in existing areas), provide the opportunity to exact land for public purposes, including for affordable housing. LPLR has rightfully received major attention in recent years, and multiple LPLR initiatives are under way in India, inter alia under AMRUT; however, it is too early to conclude on their performance. Therefore, these initiatives should be further monitored, additional pilots added (as may be appropriate), and successful projects be scaled and replicated.
- **Land Acquisition** has, until recently, been a major source of public land mobilization. It has been argued, however, that the new Act has rendered it an unpractical instrument. Nevertheless, recent experiences documented indicate that these accusations are likely not true; instead, the new Act may allow to structure fair scenarios where both the public and the rightful landowner win. Therefore, there is a large opportunity for pilot projects advancing the experience of land acquisition under the new act.
- **Negotiated land purchase** based on mutually agreed market price and paying fair compensation. As with land acquisition, there is a large opportunity here and, given that mutual agreement would typically be preferred to any forced mechanism, pilots may start looking for a mutual agreement – while the "threat" of forced acquisition (at fair rate under the new Act) may serve as an incentive for all stakeholders to be constructive and to avoid exaggerate demands at the negotiation table.
- **Guided Land Development** makes landowners a partner in land development and trading raw land for a share of serviced land (similar to land pooling and readjustment, but with a public macro developer: e.g. HUDCO). The advantage is that the public does not need to pre-finance the land development (as in the previous two alternatives) but only pays in form of serviced lots or housing units at the end of the project. For this sequence, Guided Land Development has an advantage over the latter two options. However, where negotiations for Guided Land Development are not successful, they may result in either a negotiated purchase (where landowners are keen on the upfront cash), land acquisition (where demands at the table or unreasonable) or LPLR project (where cost of forced acquisition would be prohibitively expensive) eventually.
- **Use of public lands** that are not yet utilized (e.g. landbank) or underutilized. Especially where readily available: for example, in the consultations during the study, Government of Odisha indicated the availability of a larger publicly owned site to pilot a 'mixed- income adequate habitat project'.

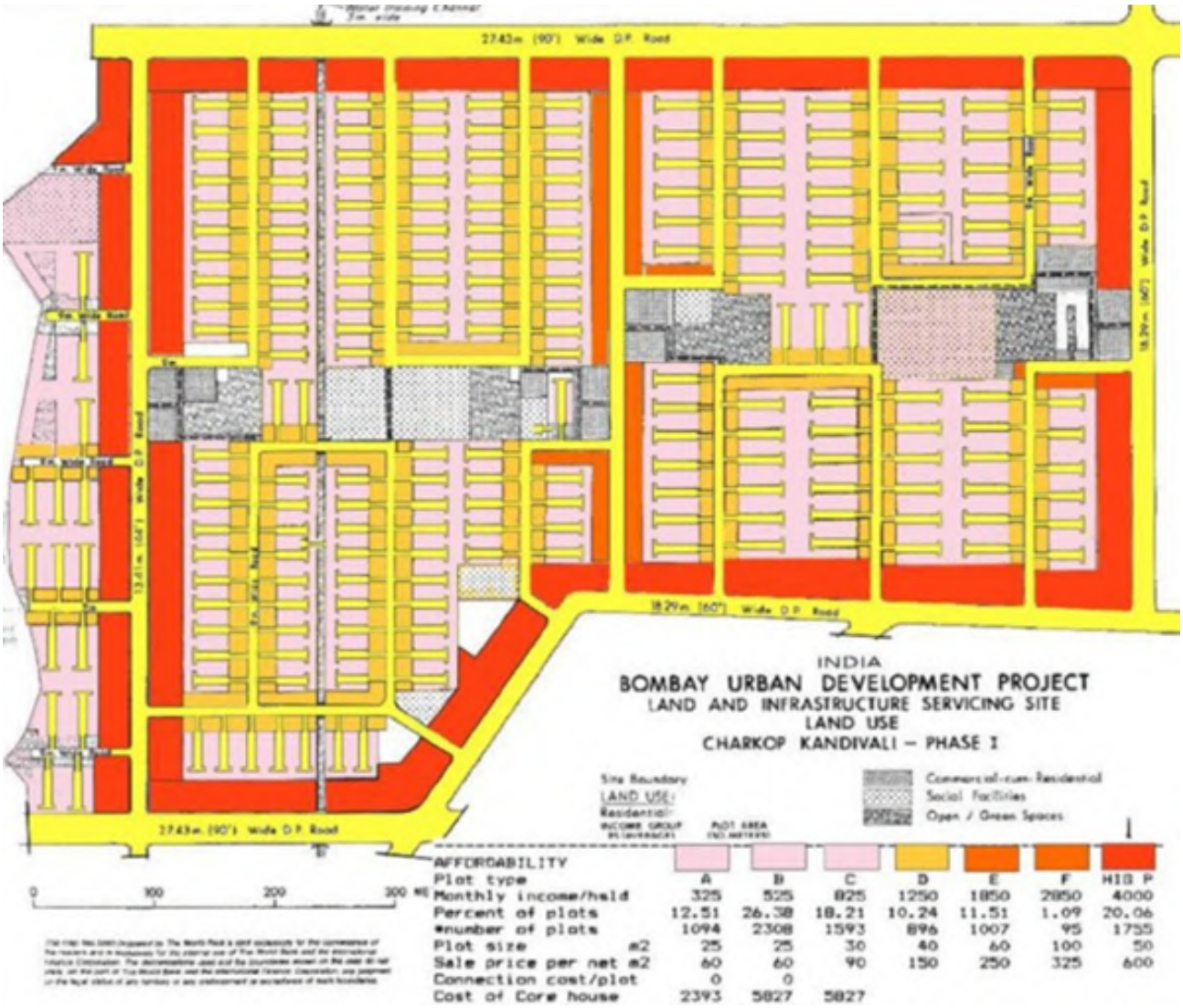
In conclusion, there is a clear opportunity for **(i) use of public land** that is readily available for 'adequate habitat pilot projects' over the short term, and for initiating **(ii) Guided Land Development** pilot projects (as a complement to ongoing LPLR initiatives) for mobilizing private land.

Finding 15: Heterogenous neighbourhoods and differential land pricing are not only a precondition for more equitable cities but also a critical strategy for financing the supply of serviced land.

India's successful experience with differential land pricing as a means for financing and thus mobilizing land at large scale; therefore, the approach should be applied more widely, beyond single-use housing projects. There are historic examples, such as the World Bank-supported guided land development project (sites and services) in Charkop, Mumbai, which differentiates the standards for services (e.g. street width) and land (e.g. plot sizes), based on – and basically reinforcing natural differences in – location. Consequently, the project charges differentiated prices for the different standards and, thereby, effectively cross- subsidizes between land uses. In Figure 11, different standards and prices are colour-highlighted in the key map – with a continuum of standards/prices ranging from low (pink) over medium (orange) to high (red). The HUDCO-supported Aranya project in Indore is another success from history. Contemporary projects include the mixed-income townships developed by TNSCB and TNHB, already mentioned. However, both historic and present examples face certain drawbacks: for example, historic projects tended to overstretch cost recovery, and present ones may benefit from a stronger mix in land uses and a stronger differentiation in infrastructure and site standards and a larger variety of housing prototypes.

Differential land pricing is particularly suitable to mobilize/recover the resources that are required for establishing a sustainable revolving fund for land acquisition, raising sufficient resources during projects to purchase the land for the next project. Public macrodevelopers may mobilize the land (at fair rates under land acquisition, negotiated purchase or guided land development). Successively the site can be developed in a heterogeneous way with standards for infrastructure, plots and housing differentiated across the site and resulting in different market values across the site, which can be exploited through differential land pricing for cross-subsidies between land uses and income groups, selling/auctioning off the most valuable land to the market and serving as an effective planning and financing facility for rapid supply of serviced land with formal titles.[46]

Figure 11. Historic experience in India with differential development standards and pricing
Source: Alain Bertaud (World Bank 1985, IBRD Map No. 17587) in Owens, Gulyani, Rizvi (2018)



Finding 16: The benefit of public housing investments may be maximized with an incremental strategy, effectively bridging between formal markets and community- driven development, mobilizing domestic resources and building local markets and generating employment.

The economic and social benefits of public housing investments are particularly large with an incremental strategy. Public housing programs that provide households with a starter home or plot that can be expanded or developed incrementally by the households, rather than a complete home, are able to reach a larger number of households with the same amount of resources and mobilize community-driven and market-based investments into the sector. (Wakely & Riley, 2011) For example, a review by Cohen (2007) alerted the reader to the fact that every 1 dollar of public investment had mobilized an additional 8 dollars of private investment in a World Bank-funded sites and service project.

These findings are in line with India's rich experience in incremental housing – such as the HUDCO-supported Aranya in Indore (Aga Khan Development Network, 1989), for which Balkrishna V. Doshi was the first Indian architect to receive

[46] For MIT's standard model for site differentiation also refer to the left side of Figure 16.

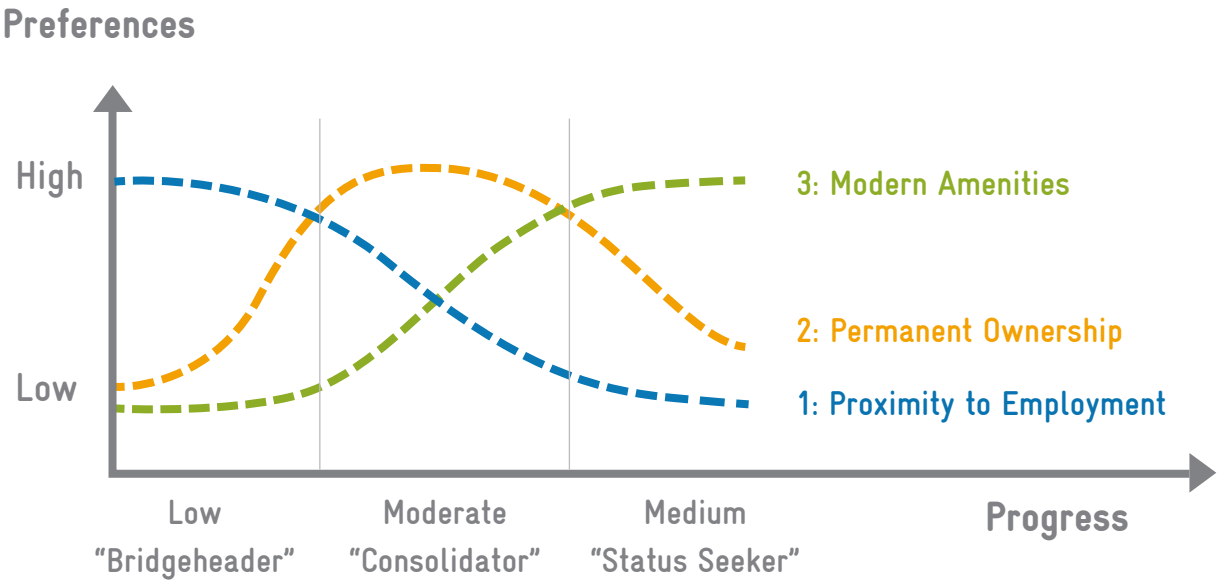
the highest-distinction Pritzker Price in 2018, or World Bank-supported settlements in Mumbai and Chennai (Owens et al., 2018). However, early incremental housing schemes (in India as abroad) also suffered from some drawbacks, including slow and haphazard development and unaffordability to the poorest households, due to an overemphasis on cost recovery.

A modern approach of incremental housing could effectively bridge top-down (or 'formal') with bottom-up (or 'beneficiary-led') construction – enabled with targeted subsidies. On the one hand, formal developers and builders deliver starter homes that are subsidized to lower the entry cost to formal market. On the contrary, the households themselves incrementally improve the basic but healthy starter environment through a bottom- up and community-driven approach.

Figure 12 illustrates lessons from Latin America where households have been identified to successively consolidate their housing, starting as bridge headers, and graduating over consolidators to status seekers, eventually. It is important that this transition is the result of a change of preferences: most households initially want to live at a good location (with employment access) and are willing to compromise on owne rship and service provision. These households may be best supported through rental option or very basic dwelling for self- development, however always at an adequate location (or with adequate transportation link). Thereafter, people seek to invest in housing – and, for these investments, they procure tenure security. Last, people want to upgrade their social status with modern amenities.

Figure 12: Productive housing careers

Almost all urban housing is procured incrementally over long time periods. Households prioritize scarce resources according to household risks and needs that change over time. Households typically graduate from bridgeheaders (new urban households that are the most vulnerable and establish their presence close to economic opportunities and typically linked to their social groups) over consolidators (households that prioritize tenure security and access to basic amenities) to status seekers (households that look forward to formal tenure and modern amenities in their communities). Source: Nohn/Rapid Urbanism, adapted from Turner, 1968.



Last, incremental housing may be an effective means for massive employment generation. In the previously described two-pronged approach of top-down and bottom-up development, it needs to be seen what the right capital-labour mix for the formal provision of the starter environment is. Here, it would be prudent to test various options, ranging from mass production and pre-fabrication (possibly on-site) to a labour-intensive approach with local technologies and materials. On the other hand, the community-driven part naturally hires small and micro- scale builders with a labour-intensive approach to housing supply, thus with significant co- benefits to the labour market. To be effective, it is important that households have access to technical assistance and credit, as already mentioned.

Finding 17: Adequate habitats require and benefit from a diversification in housing options, both increasing and supporting the heterogeneity.

Traditional guided land development projects (sites and services) have relied on only three categories of starter options: serviced plots, core units, and somewhat larger but still expandable homes. (Figure 13) However, a recent international review of guided land development projects47 has revealed a much larger variety across six different starter categories. (Figure 14) This modern range of options includes multi-story housing as a cost- effective and high-density prototype that combines two main advantages:

- To reduce initial construction cost through a starter unit that is designed for expansion, mobilizing private market-based investments (SDG 17.1); and
- To pool the cost of land amongst a larger number of stacked housing units, minimizing land consumption and maximizing the capacity to pay for better-located, adequate land that is relatively more costly but imposes lower transportation cost on private households and lower social cost (e.g. pollution, congestion) on society.

As such, multi-story incremental housing has a much higher potential to pay for better services and better location, i.e. for the two key ingredients for building better 'habitat', rather than just suppling 'housing'. Moreover, in many respects, initial 'product cost' of home construction is transferred as 'process cost' for incremental improvement by households. The delegation of responsibilities is based on the principles of subsidiarity and competitive advantage. Lastly, incremental household investments tend to be, per se, affordable, expanding households' own asset base and contributing to the building of vibrant domestic housing markets and employment (see Figure 15).

In conclusion, the modern range of starter options provides a highly diversified repertoire, which planners and policy makers can exploit for designing economically viable and socially desirable human settlements. In conjunction, the different prototypes can be used as design tools in order to create mixed-use, mixed-income, mixed-infrastructure and mixed-housing and mixed-tenure neighbourhoods, linking to the principles of differentiated land pricing based on location, infrastructure standard and permitted land use, enabling cross- subsidies, local job opportunities and location access (Figure 16).

Further, beyond the diversification of residential and non-residential land uses and in housing prototypes – including the modern range of incrementally expandable starters above – the diverse needs of Indian households also requires a mix in plot and unit sizes (e.g. corresponding to income and household size), and of land/housing tenure, including inter alia rental, rent-to- own, lease-to-own (e.g. responding to mobility preferences and access to finance).

In conclusion, in this regard there is a need for piloting inclusive urbanization / adequate habitat projects that pilot and champion these objectives, for example with a public macro-developer that releases public land or that partners with private landowners for guided land development (Finding 12 through Finding 17).

Figure 13. Traditional range of starter options

Housing starter options range from service lot-only to expandable houses, with an increase on city and/or family cost and reduced flexibility for the family but more government control
(Source: Adapted from Goethert in Goethert, Nohn and Schmidt, 2014. Design by George Gattoni, Drawing by Zachery Lamb).

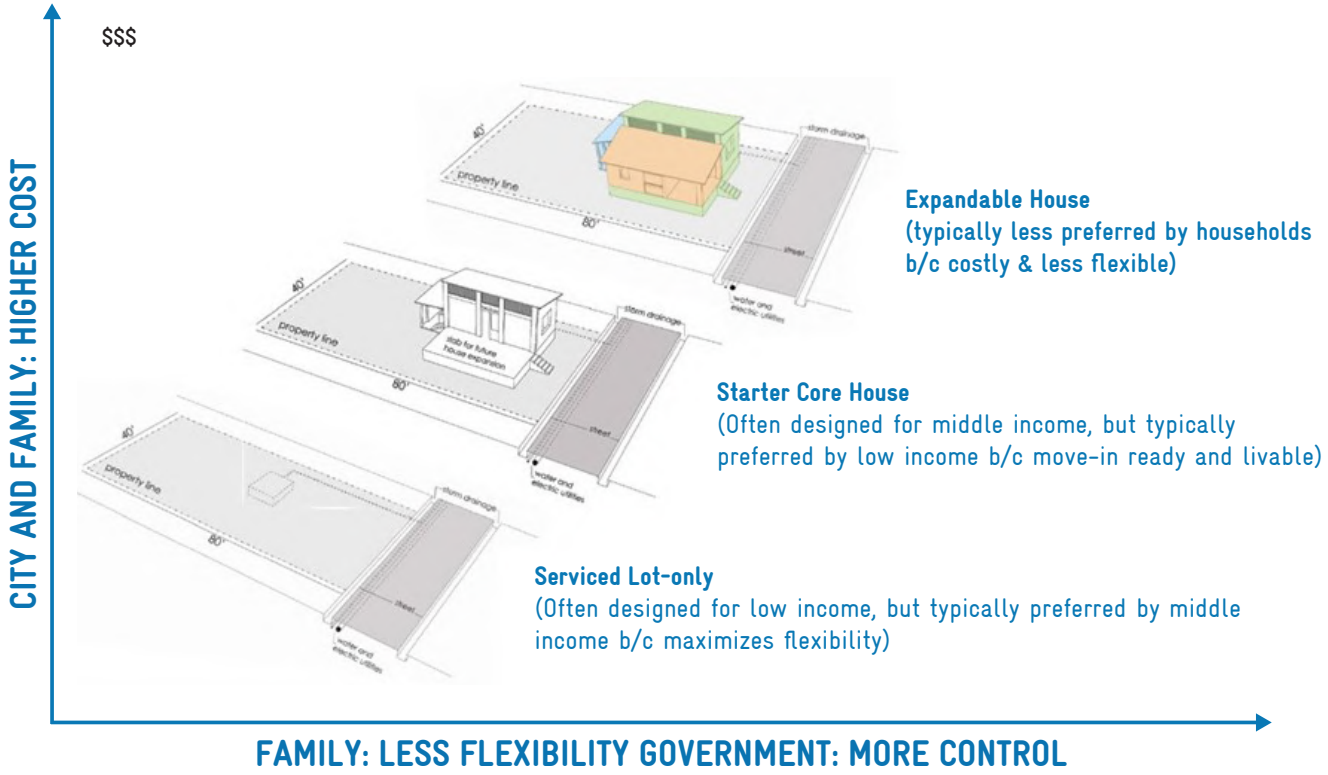


Figure 14: Modern Six Categories of Starters Housing

Credit: Nohn / Rapid Urbanism (CC BY-NC-SA 4.0), based on Goethert, 2014.

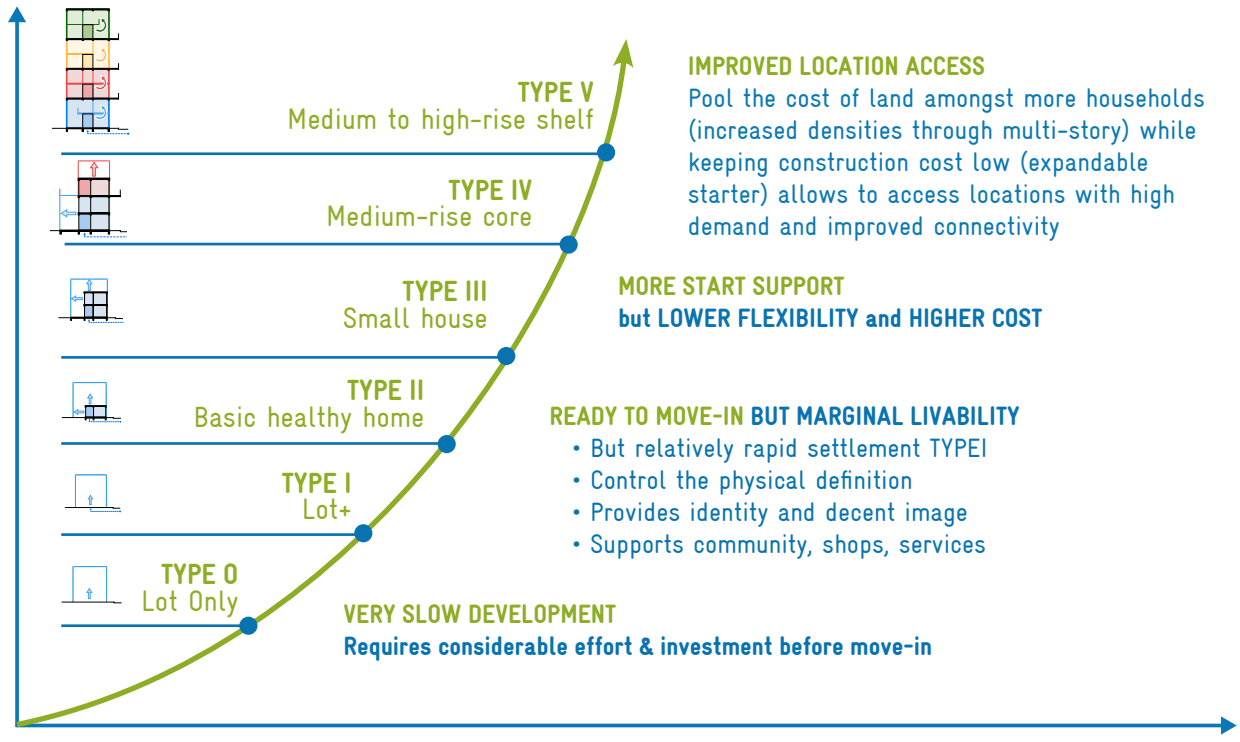
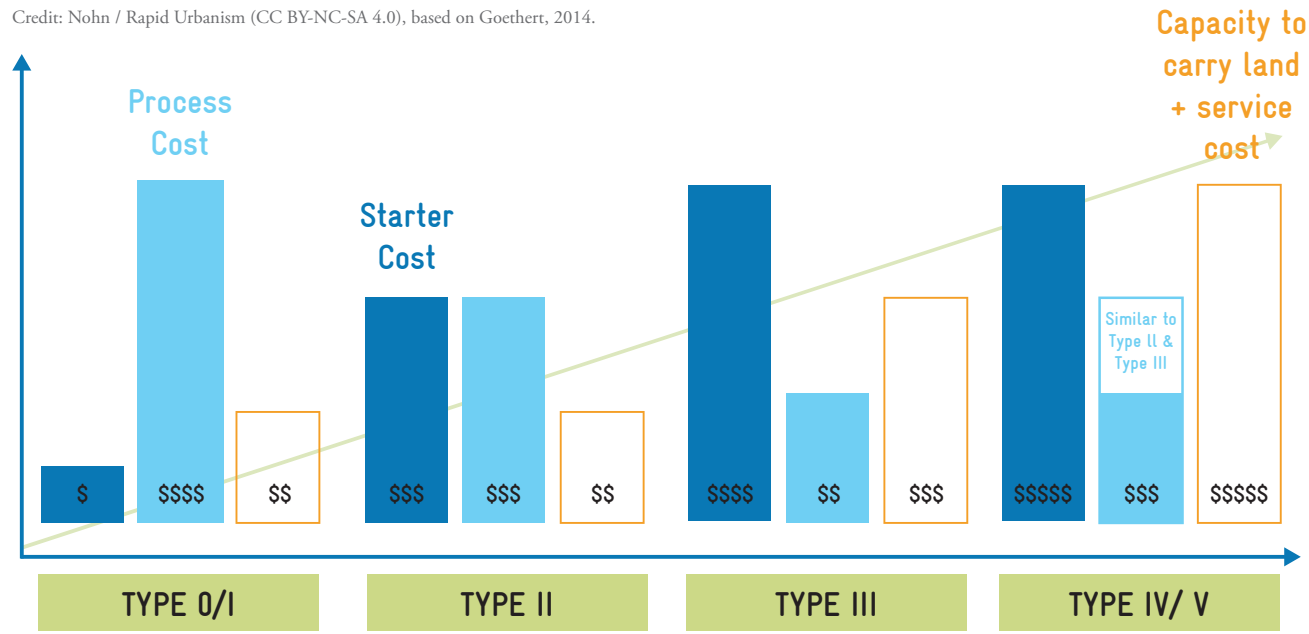


Figure 15: Cost and Economic Comparison of Starter Categories
Credit: Nohn / Rapid Urbanism (CC BY-NC-SA 4.0), based on Goethert, 2014.



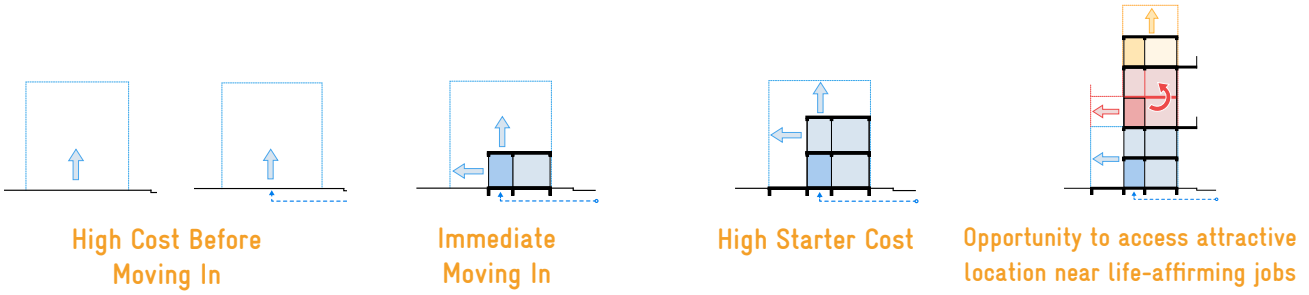
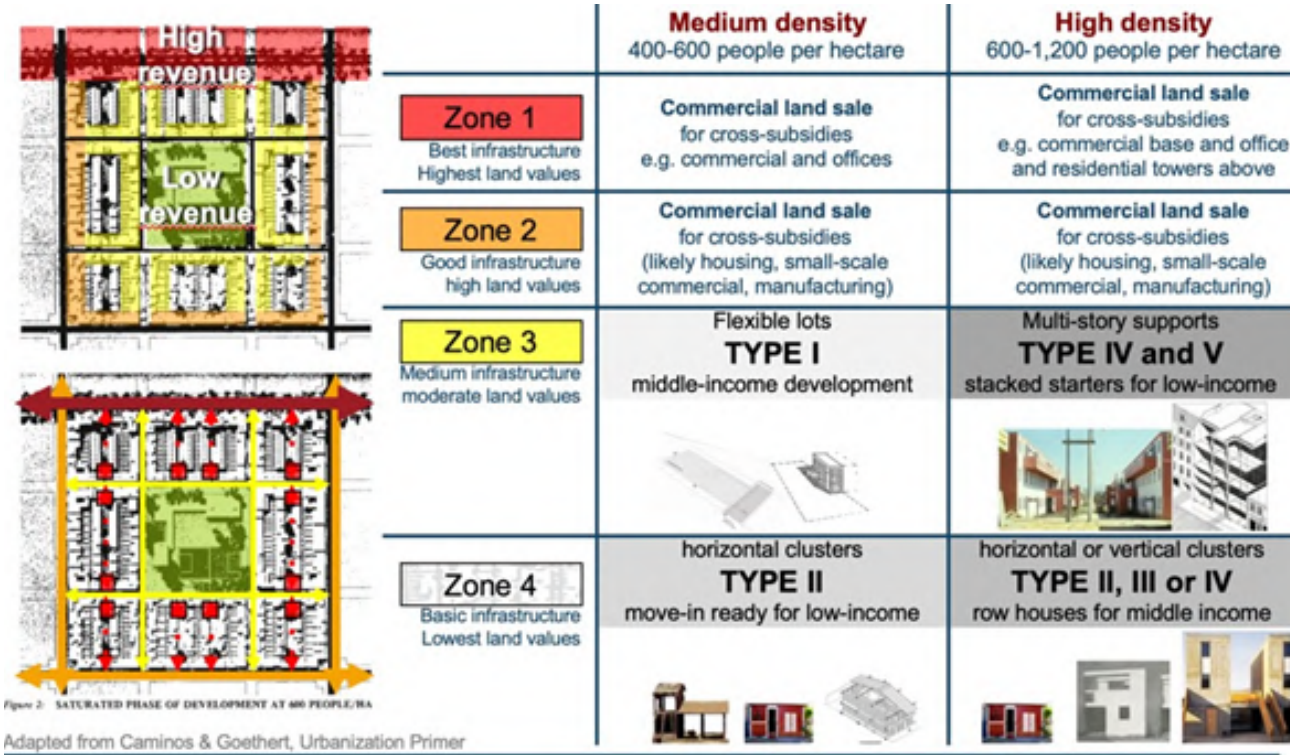


Figure 16: Starter Categories as design tools
Credit: Nohn / Rapid Urbanism (CC BY-NC-SA 4.0), based on Goethert, 2014.



Finding 18: Climate change mitigation and adaptation strategies require local integration of water, waste, heat, energy and resilient/durable housing.

First, India faces severe water stress, evident not just in the 2019 water crisis in Chennai but moreover in many of India's regions (WRI Aqueduct48) – with an imminent risk of a "day zero". This trend is induced by multiple factors, including global climate change alternating precipitation patterns on the subcontinent, with risk of longer drought periods as much as sudden and heavy rains to cause floods and soil erosion.

Thus, there is a need and an opportunity for addressing the water crisis through integrated projects. Capturing and storing (harvesting) of rainwater may hedge against draughts, retaining water avoids or slows rapid water run-off aids against floods, recharging ground water tables supports both the former two objectives as well as contributes to sustaining urban vegetation that aid reducing heat stress. In this context, for example the restoration of historic water management systems, such as in Tirupati under the GIZ EcoCity Project (2006) may be considered. For new developments, the art and craft of vernacular water management may be translated into modern systems embedded in integrated urban development. For example, open spaces can be placed in low-lying areas to double as retention ponds. (E.g. historically, Law Garden in Ahmedabad doubled in this function.) Further, modern step wells and water tanks can double as recreational sites while providing cultural identity to the people and aligning with vibrant small-scale economic activities, such as street vending.

Second, adequate solid waste management is imperative for the functioning of any water management system. Otherwise, storm drains get clogged and water bodies polluted.

Third, climate change is further increasing the risk of heat stress – in addition to the already hot climate in most of India. In line with the previous point on water for urban vegetation, plants can make a positive contribution to reducing not only heat stress but also pollution in cities. Thus, there is a need and an opportunity for integration of green urban landscapes to provide additional co-benefits of integrated projects.

Fourth, there is a need and opportunity for integrating green energy into housing projects. For example, solar cells can be installed on top of housing projects, especially on multi-story multi-family buildings, where solar cells above roof-top terraces provide a pleasant climate. During a visit to Coimbatore, the research team found a housing project with unused terraces while on an adjacent (otherwise unused) estate a solar energy project was installed. Both land uses can be combined and stacked on a single site, cooling the housing, generating energy, increasing density and land use efficiency, and generating additional income.

Last, increasing natural hazards, particularly rains, floods and storms requires resilient housing. This is especially true for any starter homes designed for incremental improvements by households. For example, a core house needs to be structurally sound and, in addition to the core house, a structural frame may guide the beneficiary-led expansion and enhance the quality of any infill. Finally, once again access to finance and technical assistance are imperative for enhancing the quality of housing development; otherwise, EWS and LIG households will lack the financial and human resources required to success.

[48] https://www.wri.org/aqueduct

Section IV – Enhancing governance to enable a thriving habitat and housing sector, balancing demand, finance and supply

Finding 19: There is a need for deregulation of development control so that urbanization becomes more efficient, more inclusive, and more sustainable.

Deregulation of development control would improve the usability of land: a short-term and very cost-effective measure for unlocking land supply, with significant social and environmental co-benefits for enabling higher densities on already serviced land, such as minimum parking requirements, setbacks and margins, artificially low FSI limitations.[49]

Development control embracing incremental development increase funds required to access adequate land, effectively. Progressive development, kicking off with affordable starter standards, reduce the entry cost to the formal housing market while guiding households to progressively develop in line with changing needs and priorities over time, allocating incremental investments towards fully adequate housing (Text Box 7). Lower initial construction cost in turn frees up household spending capacity that can be invested in accessing better land, with environmental and socioeconomic co-benefits of denser urbanization. Moreover, there is a clear need of accommodating phased development strategies in legislation, planning, and financing. This is necessary, as the most affordable and the mainstream beneficiary-led housing option is 'incremental development' (Figure 12). Unaware policies are at risk to be obsolete before printed (cf. non-compliance with development plans by the informal sector).

Text Box 7: Truly adequate standards respond to effective demand and reduce the entry cost to the formal housing market to affordable levels.

It is clear that there is a large gap between the minimum cost of a home developed on the formal market There is a large gap between the minimum cost of a houses developed on the formal market (possibly between INR 8 and 15 lakh50) and the payment capacity of the large majority of households (Table 4). While a part of this cost/affordability gap may be bridged with subsidies, bridging the full gap with subsidies at the magnitude implied by the need of both curative and preventive housing interventions (see Finding 1) would not only overstretch fiscal capacity but also cause significant market distortions, such as capture of subsidies by higher income groups, crowding out of private initiatives, and inflationary pressures adversely affecting low and middle-income households not directly benefitting from subsidies.

"The Deepak Parekh Committee not only defined the size of the housing units but also specified the standards for a decent house and gave the ambitious definition of "adequate shelter" as something meaning "more than a roof over one's head: It also means adequate privacy; adequate space; physical accessibility; adequate security; adequate lighting, heating and ventilation; adequate basic infrastructure; -- all of which should be available at affordable cost" (Deepak Parekh Committee 2008, 7). Whereas affordable housing guidelines aim at providing decent housing to all, the practical implementation of these guidelines were found to be challenging, thereby missing all three criteria together, especially for LIGs [and EWS] where the gap between household income and house price is extremely high." (Tiwari and Rao, p.12)

In this context, it is therefore suggested that GoI considers promoting incremental development as a realistic means for reducing the entry cost to the formal housing market, inter alia through adjustments in the model development control regulations. The pragmatic amendment should reflect the mainstream path towards the realization of people's dream homes: that is incremental housing (Wakely & Riley, 2011). For example, Indonesia's Million Housing Programme51 considered a starter home to be of at least 12 sqm but be expandable to at least 36 sqm, eventually; the former being the affordable entry point to the formal housing market and the latter being the final 'minimum standard'.

[49] Rapid Urbanism's introductory lecture on how to expand the supply of land strategically, pp. 14-23. Accessed on June 24, 2019 at: https://app.box.com/s/srs696pqkwbux0wsa8zdfeo3hychn1h7

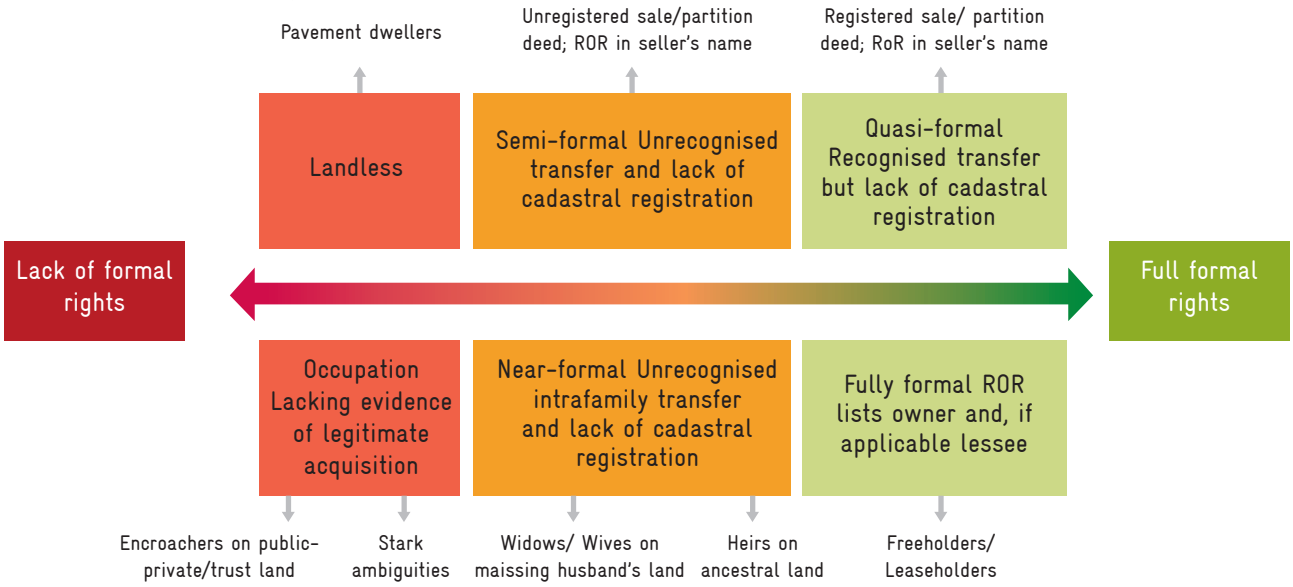
[50] Das, Karamchandani, & Thuard, 2018, Figure 3

[51] Public Works Ministerial Decree No. 20/KPTS/1986

Finding 20: There is a need to improve access to tenure security for all households, considering the 'land tenure continuum'.

Firstly, the 'land tenure continuum' differentiates legitimate possession versus cases of occupation that lack evidence of legitimate acquisition. The first category includes, besides fully formal tenure (e.g. freehold or leasehold), many cases where legitimate transactions happened but lack a cadastre record (shade of green colours in Figure 17). Cases of legitimate ownership typically do not require the settlement of any claims, so that fully formal tenure should be granted through simple administrative processes and at affordable cost. In contrast, cases lacking evidence of legitimate acquisition likely require the settling of disputes over the land: e.g. squatters on alien land.

Figure 17: The land tenure continuum in Odisha
Source: Inclusive Cities Partnership Programme, 2018



For disputed cases, provision of more complete rights without any counterpart payment would arguably unduly undermine the property rights regime. Therefore, free-of-charge improvements on the ladder of land tenure should only be modest, for example through a no- eviction guarantee (e.g. Parivartan; Annex 6) or occupancy rights (e.g. land rights certificate under Odisha's Jaaga Mission).

On the other hand, more advances may be desirable from point of view of policy makers and be desired by communities. For these cases, however, it will be challenging to find affordable strategies for financing this value increase – without unduly high subsidies that would distort markets and property rights it (e.g. concessionary price of public land or subsidies for private land). Notably, again the tenure continuum provides an answer to this challenge.

First, a lease may be considered instead of freehold, as leases themselves also constitute a financing mechanism: in fact, possibly the most affordable means for accessing land is a long- term lease that is indexed to inflation. For example, imagine a plot of land worth INR 3 lakh.

- A **mortgage** with a 20 percent downpayment would result in an EMI of INR 3,359 (over 15-years at 15 percent interest, including 9 percent real interest and 6 percent expectation of inflation).
- In contrast, an **inflation-indexed loan (or rent-to-own agreement)** would require an initial monthly instalment of **INR 2,434** only (over 15-years at 9 percent real interest in exchange for annual increases in the outstanding lease amount of 6 percent).

- Lastly, a long-term lease would not need to amortize the land value (as the land is returned at the end of the lease) while annual lease payments can be increased with inflation (as in the previous case); thus, the initial monthly instalment for the land would fall to **INR 1,800** only.

Second, where collective ownership is an option, shared tenure may be priced at a lower, discounted value. While this may not be a suitable strategy for addressing disputes over private land – as the formal owner wants to get the maximum amount out of the dispute – it may aid the formalization of public land at concessional prices while mitigating undue market distortions. For example, informal communities on public land may be offered collective ownership against a 1/3 reduction in the land price charged. Furthermore, if the land is financed with a lease, then (considering the previous example) a plot of land worth INR 3 lakh (with individual title) would cost INR 2 lakh only (with collective title, e.g. through a housing cooperative society). In that case, while the collective title may aid to shield against market pressures, the affordability would improve further:

- Finally, the initial payment required to service the lease would fall to **INR 1,200** only.

In summary, collective leasehold may provide the best protection against forced evictions and market-induced displacement, however at the expense of a lower market exchange (Table 11) according to Bhan, Anand, & Harish (2014, p. 18) – while a long-term lease may also serve as an affordable financing instrument with the option of taking inflation out of the interest rate. A collective leasehold may also satisfy the basic risk management needs of lenders, enabling household to access housing finance. To fulfil the later criterion, lenders need to the able to collateralize a leasehold property, implying inter alia the option of foreclosure. (The extent to which this is possible has not been assessed during this study and may warrant further exploration.)

Table 11: Evaluating Property Right Regimes
Source: (Bhan et al., 2014, p. 18)

		MARKET EXCHANGE	PROTECTION AGAINST FORCED EVICTION	PROTECTION AGAINST MARKET-INDUCED DISPLACEMENT
Individual Title	Freehold	High	High	Low
	Leasehold	Low	High	Medium
Collective title (e.g. cooperative)	Freehold	Medium	High	Medium
	Leasehold	Low	High	High
Other	No-eviction guarantee	Low	Medium	High
	Temporary license	Low	Low	Medium

Lastly, tenure security of all households should be improved with caution and in phases. Any improvement in tenure security will increase the value of the land as a commodity, which exposes households to market forces and may have adverse consequences (e.g. displacement of urban poor tenants for rent increases), then countering the original intension of any such laudable policy. This dynamic does not only apply to land tenure but also to infrastructure improvements:

If upgraded areas stand out, due to the relatively higher quality of their improved habitat or tenure, improved properties will become subject to speculation: the premium for scarce, formal neighbourhoods would induce markets to siphon off allocated subsidies and render the poorest households to new vulnerabilities, especially tenants who would tend to be pushed out of their gentrifying communities (Figure 18). Instead, with a phased approach, gradually removing housing deprivations city-wide, differences in property values between neighbourhoods will be minimized, reducing demand and capture in upgraded areas. (UN-Habitat, 2019)

Figure 18: Effects of titling within the ladder/continuum of tenure
Source: UN-Habitat, 2019

TENURE SECURITY IN LAW (DE FACTO RIGHTS MAY VARY CONSIDERABLY)

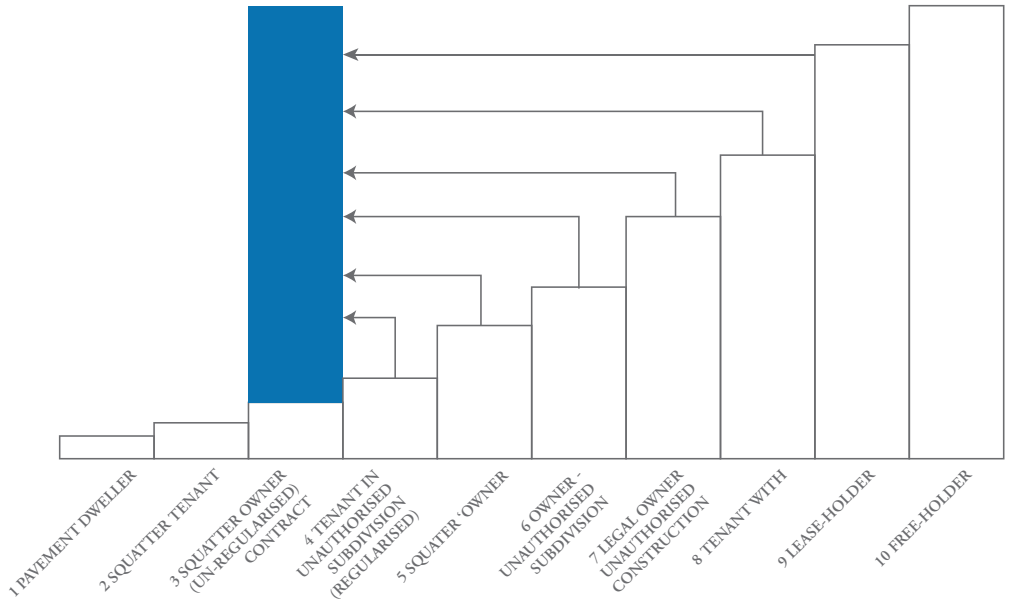


Figure 18a: Market pressure induced from one- off slum upgrading The provision of full, formal tenure status (as in the graph) and/or of full infrastructure access raises commercial property value. Therefore, it likely reduces tenure security for the most vulnerable groups, such as squatter tenants. It also creates new or intensifies existing land and property market distortions.
(Source: Payne, 2002)

CAREFULLY PHASED CITY-WIDE STRATEGY

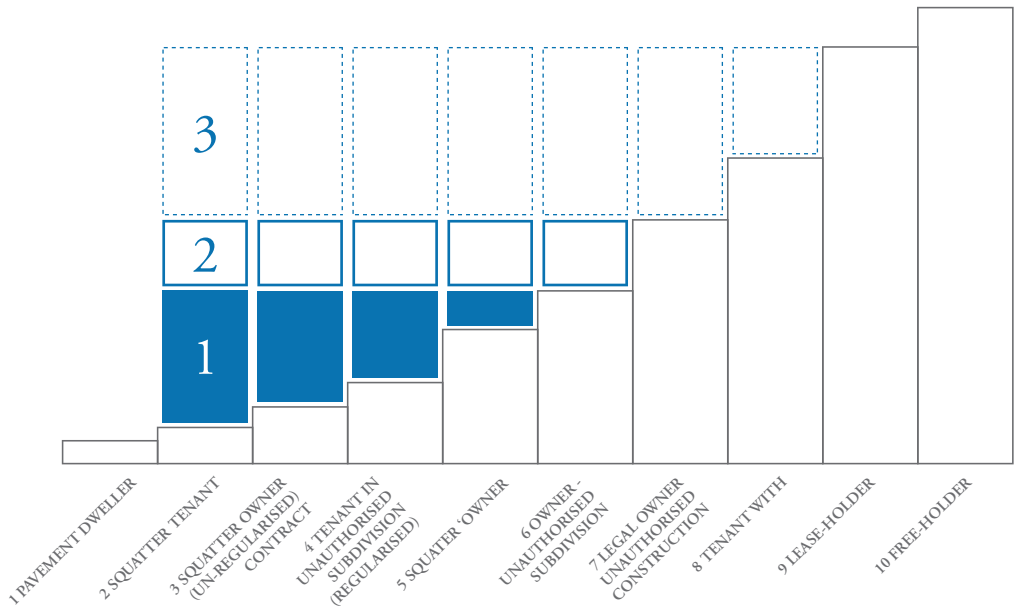


Figure 18b: Equity in land markets through a carefully phased city-wide strategy.
Gradual improvement in tenure security (as in the graph) and/or infrastructure access prevents market pressures from other groups. It increases social equity without distorting land or property markets. (Credit: Rapid Urbanism, adapted from Payne, 2002)

Finding 21: There is a need to remove procedural hurdles to land tenure security.

There is a need for streamlining administrative procedures for simplification and inclusion. The Inclusive Cities Partnership Programme investigated the land tenure continuum in Odisha, inter alia showing the number of administrative units and steps involved in obtaining formal titles (2018, Annexure 1: Process maps for getting Record of Rights). The multitude of stakeholders and steps poses a significant barrier to many, especially poor Indian households, including a large majority of informal households interested in obtaining formal title. The use of alternative documentation (e.g. vanshavali) has proven a useful shortcut.

Finding 22: Fiscal hurdles constrain access to land tenure and functional land records and markets.

There is a need for making land-related public revenues affordable to the urban poor. In regard to land titles, there are two sets of charges imposed during land transactions: land transfer and registration charges are to be paid whenever the ownership is passed on, for example due to inheritance or sale; secondly, land use conversion charges are payable if the land use changes, for example from agricultural to non-agricultural, or at conversion from new to old tenure (removing restrictions e.g. on the tradability of the historically allocated land). While these charges may constitute a significant source of public revenues and, in the case of conversion charges, follow the logic of value capture, their rational is still from colonial times. As such, their attitude is not only profoundly anti-urban, constraining land supply (Ballaney & Patel, 2009), but also anti-poor, pushing the poor unable to afford the lumpsum charges, into informality. Moreover, tax evasion and unaffordability create a black market (with many adverse effective including poor data on the market), and disproportionately harm the poor (again with adverse effects including the exclusion from markets, such as housing finance, and governance, such as housing subsidies).

Recurrent payments, in lieu of lump sums, are more affordable and inclusive.[52] These payments can maintain public revenue as much as support the social function of land. Already Vaidya (1986) demonstrates that such recurring instalments have been common in India for a long time and tend to be preferred by many landowners: "As per the Town Planning Acts owners' or betterment contribution is up to half of estimated increment in land value due to implementation of the scheme. The landowners have the option of paying their contribution in lumpsum or in ten annual instalments at a nominal interest rate. Therefore, most of the landowners prefer to pay the amount by instalments." Furthermore, a payment schedule with a higher frequency, such as on a monthly or even weekly basis, would further aid in promoting discipline amongst low-income households. (Rutherford, Text Box 6)

Finding 23: There is a need to reduce relocation projects from lands that are de-facto occupied but de-jure untenable.

Consider a pragmatic definition of tenable/untenable non-objectionable/objectionable in favour of de-facto use of land and an urbanization-friendly approach to land use. Coordinate, as may be required, with other authorities, such as the Ministry of Environment and Forest to redefine setbacks from water bodies or the Ministry of Railways to redefine setbacks from railway tracks and/or to negotiate access to railway lands. For example:

In case of protected water bodies, land rights can be established in exchange for payments by the community, such as a long-term lease for the land (Finding 20), with the lease providing a sustainable source of revenue to recover cost of infrastructures and cover O&M required for environmental protection. The environment itself can be protected through (i) construction of interception sewers (which are anyhow required to collect sewage that is discharged from other nearby communities; thus the opportunity cost is zero), (ii) provision of effective solid waste management systems to prevent pollution of the water body (which, again, is anyhow required at any location so that the opportunity cost is zero, too), and (iii) awareness campaigns about responsible environmental behaviour including liquid and solid waste management (which can be provided at minimal cost and nudged with other awareness campaigns and technical assistance for operation and management at the community level). Given the resource mobilization potential of land rights, the cost of in-situ environmental protection is fully paid, while the surplus can be invested at a larger scale. In conclusion, as the Three-Pronged Approach according to the Principles of Planned Urbanization (UN-Habitat, 2016), for example a lease can constitute both the legal and financial mechanism that sustains the physical project providing services for poverty reduction, public health improvement and environmental protection.

[52] Rapid Urbanism's introductory lecture on how to expand the supply of land strategically, pp. 41-55. Accessed on June 24, 2019 at: https://app.box.com/s/srs696pqkwbux0wsa8zdfeo3hychn1h7

Finding 24: There is a need to reduce relocation projects from lands that are de-facto occupied but de-jure untenable.

Consider a pragmatic definition of tenable/untenable non-objectionable/objectionable in favour of de-facto use of land and an urbanization-friendly approach to land use. Coordinate, as may be required, with other authorities, such as the Ministry of Environment and Forest to redefine setbacks from water bodies or the Ministry of Railways to redefine setbacks from railway tracks and/or to negotiate access to railway lands. For example:

In case of protected water bodies, land rights can be established in exchange for payments by the community, such as a long-term lease for the land (Finding 20), with the lease providing a sustainable source of revenue to recover cost of infrastructures and cover O&M required for environmental protection. The environment itself can be protected through (i) construction of interception sewers (which are anyhow required to collect sewage that is discharged from other nearby communities; thus the opportunity cost is zero), (ii) provision of effective solid waste management systems to prevent pollution of the water body (which, again, is anyhow required at any location so that the opportunity cost is zero, too), and (iii) awareness campaigns about responsible environmental behaviour including liquid and solid waste management (which can be provided at minimal cost and nudged with other awareness campaigns and technical assistance for operation and management at the community level). Given the resource mobilization potential of land rights, the cost of in-situ environmental protection is fully paid, while the surplus can be invested at a larger scale. In conclusion, as the Three-Pronged Approach according to the Principles of Planned Urbanization (UN-Habitat, 2016), for example a lease can constitute both the legal and financial mechanism that sustains the physical project providing services for poverty reduction, public health improvement and environmental protection.

Text Box 8: The Case of the Bang Bua Canal In-Situ Redevelopment Project

The 'Bang Bua Canal Community' In-Situ Redevelopment Project includes land rights, basic services and environmental infrastructure, as well as adequate housing. The in-situ approach enabled the community to maintain its socioeconomic linkages with their neighbourhood – while it reduced the need of mobilizing a nearby adequate site, which would have been very expensive. The bottom image shows the upgraded community (left) in comparison with a not yet upgraded community on the opposite canal bank (right).

The project was implemented under the Baan Mankong Community Upgrading Programme, which supported 96,882 households in 1,805 communities with USD 191 million for supply-side infrastructure subsidies and demand-side soft loans for land and housing, with following key features:

- Community organization: The project was implemented by a network of 12 squatter communities (3,400 families) along 13km of the Bang Bua canal in Bangkok.
- Purpose: in-situ redevelopment (housing, infrastructure, and water quality) and secure land tenure.
- Land tenure: a 30-year and renewable lease for the public land occupied, negotiated with support of the city-wide network of 200 canal-side communities.
- Land finance: Rental rate of about 1 Baht per sq. meter per month; each family pays between 40 and 70 Baht (less than USD 3) in land rent every month.
- Housing finance: Low-interest loans result in affordable monthly payments of USD30, with innovate

Refinancing:

- CODI charges 3 to 10% to communities, depending on loan size and purpose.
- Communities add a spread of approx. 5% when lending on to members, cross-subsidizing each MBO.

In case of railway lands, land rights may be established in exchange for attractive payments to the railways, such as a long-term lease constituting an affordable financial vehicle for the poor (Finding 20) while transferring significant resources to the railways and permitting the repossession in case the land would be needed again for railways).

Similarly, such approach can be applied to lands with 'objectionable' land use. Moreover, slum clearance, keeping the lands empty and underutilized is not a pragmatic approach, given the dire need to access affordable land and (especially remote) relocation schemes tend to leave poor and low-income households worse off. (UN-Habitat & UNESCAP, 2008)

Finding 25: The current taxation of urban land – under both the revenue regime and the property tax regime – counter major development objectives, including housing production, economic growth, employment generation, resource efficiency, environmental sustainability and socioeconomic inclusion and equity.

The system of property valuation for taxation purposes differs by city across India, with three different systems in place. The tax base is assessed either as per (a) the Annual Rental Value System, (b) the Capital Value-based System, or (c) the Unit Area Value System. 53 Regardless of the valuation system, the tax base of the property tax is always the cumulative value of land or site value and of the improvement of the land (e.g. with buildings).

India's approach to property taxation, albeit not uncommon internationally, is countering the country's need for sustainable urbanization and affordable housing. "[India's] property tax is, economically speaking, a combination of one of the worst taxes – the part that is assessed on real estate improvements [e.g. buildings] – and one of the best taxes – the tax on land or site value," using the words of William Vickrey's, the 1996 Nobel Prize laureate in economics. Vickrey's assessment is commonly shared by other economists, including Milton Friedman, another Nobel Prize laureate in economics, or the US Federal Reserve Bank (Text Box 9)

Text Box 9: Background on Land Value Taxation (LVT)

Source: Jeffrey P. Cohen and Cletus C. Coughlin. An Introduction to Two-Rate Taxation of Land and Buildings

"In my opinion, the least bad tax is the property tax on the unimproved value of land, the Henry George argument of many, many years ago." Milton Friedman, 1976 Nobel Prize laureate in economics (quoted in Mankiw 2004).

"The property tax is, economically speaking, a combination of one of the worst taxes-the part that is assessed on real estate improvements [e.g. buildings] ... and one of the best taxes-the tax on land or site value." William Vickrey (1999), 1996 Nobel Prize laureate in economics.

"When taxing real property at the local level in the United States, land and improvements to the land, such as buildings, are generally taxed at the same rate. Two-rate (or split-rate) taxation departs from this practice by taxing land at a higher rate than structures. This paper begins with an elementary discussion of taxation and the economic rationale for two-rate taxation. In theory, moving to a two-rate tax reduces the deadweight losses associated with distortionary taxation and generates additional economic activity. The paper also provides a history of two-rate taxation in the United States and a summary of studies attempting to quantify its economic effects. Discussions of the practical and political challenges of implementing two-rate taxation complete the paper." Federal Reserve Bank of St. Louis Review, May/June 2005, 87(3), pp. 359-74.

[53] (https://www.thehindu.com/real-estate/your-ultimate-guide-to-property-taxes/article19962403.ece)

Finding 26: A fiscal shift to Land Value Taxation may be the most powerful policy option at hand for expanding land supply and improving housing affordability.

There is a clear opportunity to move from conventional property taxation to Land Value Taxation (LVT): the most efficient and equitable means to tax land. During the study's field mission, the research team encountered a young but emerging initiative in one of the three partner states, assessing options for moving from the current property taxation, levied on both site and improvement, to a property tax based solely on site value. LVT is transparent and pro- poor, promotes investment in the land (thus contributing to employment generation in construction and housing supply through construction), and has the potential to control inflation of land prices. The shift from conventional property taxation to LVT may happen either through a two-rate property tax (possibly initially and as a means to smoothen the transition)54 or, better, through a pure LVT. Annex 9 provides more details.

In conclusion, acknowledging the political dimension of any changes in taxation, the researchers would like to highlight the great potential of Land Value Taxation (LVT). It is an often-overlooked gearwheel in the urban policy toolbox, but it has very strong and positive effects on land and housing markets. As LVT is also a means of value capture – taxing away a share of land value from private owners – it makes part of India's rich Value Capture Finance Policy Framework, 2017. However, amongst Land Value Capture (LVC) tools, LVT stands out, due to its sustained long-term cashflows that constitute both an affordable and inclusive fee to citizens and a sustainable public revenue that can be used for O&M of public services and infrastructure. Therefore, the study team has identified LVT as a priority area for action.

Finding 27: There is a need to focus subsidies in EWS and LIG households for poverty reduction and market-building, rather than subsidizing MIG households – as the latter tends to distort markets and increase the affordability challenge for everyone.

Beyond GoI commitment to SDG10 on equality, possibly the most important argument for prioritization of public expenditures for the bottom 40 percent and, thus, for designing a regressive subsidy regime55 across public housing schemes is the minimization of market distortions and the magnitude of the need (contrasting the fiscal limitations that even a government as powerful of the Indian one faces).

The current approach of PMAY, however, is not regressive (i.e. does not prioritize LIG and EWS). In fact, for example in the case of CLSS the size of the subsidy is directly proportional to the loan size. Even though the interest rate subsidy reduces from 6.50 percentage points for EWS and LIG households to 4.00 and 3.00 percentage points for MIG 1 and MIG 2 households respectively, in reality better-off households tend to capture larger subsidies, as is the result of the affordability analysis (Finding 2) that is inter alia based on the undivided accounts of interviewees and in line with international experience (e.g. Buckley & Mathema, 2008). The main reasons include that most EWS and LIG households, if at all considered eligible by lenders, in practice are unable to afford loans larger than INR 3 lakh (Table 7), implying a subsidy of 1.33 lakh or less – which is significantly below the subsidy that better-off households capture. (Table 12)

[54] A two rate tax charges a higher tax rate on site value than the rate on improvements. This may happen either explicitly (i.e. with two different rates) or implicitly (e.g. with a surcharge on the tax assessed on site value, e.g. under the affordable housing cess discussed in Recommendation 10).

[55] Similar to progressive taxation – taxing higher incomes at a higher rate – regressive subsidies support lower incomes at a higher rate. It is thus the other side of the coin of redistributive policies.

Table 12: CLSS parameters and subsidy size

Source: https://www.hdfc.com/housing-loans/pradhan-mantri-awas-yojana-clss and https://www.bankbazaar.com/home-loan/pradhan-mantri-awas-yojana-eligibility-criteria.html

CLSS SCHEME TYPE	EWS AND LIG	EWS AND LIG	MIG 1 **	MIG 2 **
Eligible Annual Household Income	Rs. 6,00,000	Rs. 6,00,000	Rs. 6,00,001 to INR 12,00,000	Rs. 12,00,001 to INR 18,00,000
Max. Carpet Area	60 sqm	60 sqm	160 sqm	200 sqm
Woman Ownership	Yes *	Yes *	Not Mandatory	Not Mandatory
Interest Subsidy (%)	6.50%	6.50%	4.00%	3.00%
Subsidy calculated on a max loan of	Rs. 3,00,000	Rs. 6,00,000	Rs. 9,00,000	Rs. 12,00,000
Loan Purpose	Purchase Self-Construction Extension	Purchase Self-Construction Extension	Purchase Self-Construction	Purchase Self-Construction
Validity of scheme	31/03/2022	31/03/2022	31/03/2020	31/03/2020
Max Subsidy (Rs.)	1.33 Lakhs	2.67 Lakhs	2.35 Lakhs	2.30 Lakhs
Initial EMI	Rs.2,895	Rs.5,790	Rs.7,894	
Reduced EMI after subsidy credit	Rs.1,605	Rs.3,211	Rs.7,071	

From the authors' point of view this may be problematic as all subsidies are at least partially absorbed by increased market prices for housing (or land) – at least as long as the supply does not expand sufficiently in order to compensate the increase in demand (which is true for housing in general as well as for serviced land in particular). Quantifying this increase for India is beyond the scope of this study; however, international experience shows that this is a general problem that should not be ignored. For example, the OECD observed that "tax breaks [or subsidies in general] tend to be capitalised in house prices, thereby preventing some financially-constrained households from owning their home." Moreover, subsidies lead to inflation that adversely affects all (and often the poorest) citizens not included in public schemes, as, for example, Buckley and Mathema have documented (2008).

In this context, it is suggested to consider designing a regressive[56] subsidy regime that prioritizes resources for low-income and urban poor households while phasing out subsidies for middle-income households. To avoid capture by better-off households it is important to however promote fairness in such a system, by ensuring that each next-higher income group – despite a smaller subsidy – can still afford more than the next lower income group with a larger subsidy. This is a critical condition for building markets. The trick is to differentiate the type of subsidy given to different income groups[57]; for example:

- EWS households may be served best with a downpayment subsidy, which displays the largest redistributive power and for which the subsidy size is directly proportional to the improvement in affordability;
- LIG households' payment capacity may be best expanded with a buy-down (i.e. a payment match or interest subsidy that is higher for initial years of repayment and, with nominal income growth expanding the payment capacity, steps

[56] A regressive subsidy is the equivalent of a progressive tax. The opposite direction of the cash flow from state to beneficiary (subsidy), in contrast to from citizen to state (tax), requires the adaptation from 'progressive' to 'regressive'. A regressive subsidy is thus efficient and pro-poor: it prioritizes resources for low-income and urban poor households while phasing out subsidies for middle-income households.

[57] Rapid Urbanism's introductory lecture on demand-side subsidies. Accessed on June 24, 2019 at: https://app.box.com/s/dins0j8un6gahsimoeb07i87f9iqz0u4

down over a specified period). Therefore, a buy-down is more economical to government (due to lower NPV of the reducing cash flow) while reducing the initial payments for the housing loan[58];

- MIG I households could just be supported with insurance for a financially engineered mortgage, using increasing loan instalments that start with zero amortization (to avoid negative amortization) and over few initial years growing to a regular EMI – not requiring any support other than risk insurance; and
- MIG II households may self-purchase such an insurance, being free of cost to government while still triggering the affordability improvement (if any); however, given the heated real estate market it is not advisable to further enhance the payment capacity of this income group, at least not through public investment.

Table 13 illustrates these principles, which is intended merely as a basis for further discussion: the affordability improvements are higher for higher income groups – so that there is little incentive to capture the subsidy with a higher fiscal cost to government and a higher redistributive power for poverty reduction amongst lower income groups; in summary[57]:

- Regressive absolute subsidies. Lower-income households should receive a larger subsidy (by fiscal cost) while the subsidy for better-off households reduces ("regresses").
- Progressive affordability. At the same time, better-off households must be able to afford more than poorer households with a subsidy; otherwise, the system is unfair and the incentive to capture subsidies (intended for poorer income groups) would become too large.

Further research would be required for better understanding the fiscal cost of current housing programmes (e.g. PMAY verticals) and how to design an integrated subsidy regime that is efficient and fair across schemes and income groups and that allows government to scale up the number of housing units developed in the market without running out of allocation.

[58] Note that, similar to the current approach taken by NHB to emulate an interest rate subsidy under CLSS, it is most effective to deposit the NPV of the subsidy into the loan at the beginning; to maintain the features of a payment match, which is required for a buy-down, the amount can be deposited in an escrow account from which the match is transferred on a regular basis; the escrow account may be required to pay the same interest rate as the one charged on the loan (possibly with a minor spread of e.g. 0.25 percentage points to cover the administrative expenditures for setting up the escrow system and covering the recurring transfer costs).

Table 13: example for a regressive subsidy regime, improving affordability and market effectiveness

Stylized facts to illustrate a concept. Changes are highlighted in bold and green font. Given the improved collateral, the scenario with subsidies also assumes lower interest and longer amortization. For a basic introduction to different subsidy approaches see Annex 7;

	ECONOMY / GEOGRAPHY	INDIA	INDIA	INDIA	INDIA
	Income group	**MIG II**	**MIG I**	**LIG**	**EWS**
	Monthly income (selected)	INR 1,25,000	INR 75,000	INR 37,500	INR 18,750
	Income share (FOIR)	25%	25%	20%	15%
Market based, after innovation (from Table 10)	**Rent capacity**	**INR 31,250**	**INR 18,750**	**INR 7,500**	**INR 2,813**
	Financial instrument	Mortgage	Mortgage	Emerging Housing Microfinance	Emerging Housing Microfinance
	Interest rate (APR)	10.00%	12.00%	15.00%	18.00%
	Amortization period	20 years	20 years	15 years	10 years
	Loan amount	INR 44,69,621	INR 20,16,750	INR 5,26,263	INR 1,51,675
	Downpayment share	30%	30%	20%	10%
	Downpayment amount	INR 19,15,552	INR 8,64,321	INR 1,31,566	INR 16,853
	Affordable project cost	**INR 63,85,173**	**INR 28,81,071**	**INR 6,57,829**	**INR 1,68,528**
	Annual income	INR 15,00,000	INR 9,00,000	INR 4,50,000	INR 2,25,000
	Income multiplier	4.3	3.2	1.5	0.7
Regressive subsidy regime	Subsidy	Market-based Step-up amortization mortgage	Insurance for Step-up amortization mortgage	Buy down*, emulating INR 2 lakh subsidy	INR 2 lakh down-payment subsidy
	Interest rate (APR)	10.00%	12.00%	14.00%	16.00%
	Amortization period	20 years**	20 years**	20 years	15 years
	Loan amount	INR 37,50,000	INR 18,75,000	INR 7,96,082	INR 1,88,172
	Downpayment share	30%	30%	20%	10%
	Downpayment amount	INR 16,07,143	INR 8,03,571	INR 1,99,020	INR 20,908
	Downpayment subsidy[59]	–	–	–	INR 2,00,000
	Affordable project cost	**INR 53,57,143**	**INR 26,78,571**	**INR 26,78,571**	**INR 26,78,571**
	Annual income	INR 15,00,000	INR 9,00,000	INR 4,50,000	INR 2,25,000
	Income multiplier	3.6	3.0	2.2	1.8
	Subsidy impact: Affordability improvement	**INR 8.0 lakh**	**INR 2.8 lakh**	**INR 2.0 lakh**	**INR 2.0 lakh**
	Subsidies' fiscal cost	**–**	**INR 0.36 lakh[60]**	**INR 0.77 lakh[61]**	**INR 2.0 lakh**

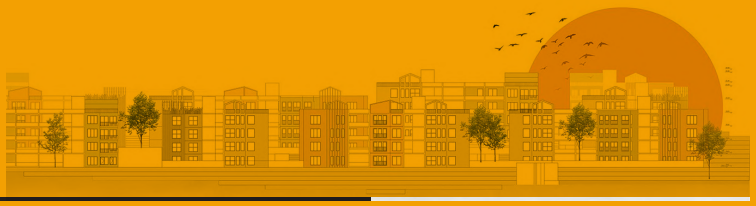
[59] Assumed is the current BLC subsidy size of INR 2 lakh.

[60] The calculation assumes an insurance premium of 1 percentage point, of which half is given as a subsidy for the initial five years (after which the rent capacity will cover the full EMI). The subsidy payments are discounted at 9 percent (as per the CLSS subsidy scheme provisions).

[61] The calculation assumes a discount rate of 9 percent (as per the current CLSS).


தமிழ்நாடு காவலர் வீட்டு வசதிக் கழகம்
V

PART III



India has made consistent progress in addressing urban housing poverty over time. Inter alia, the number of urban citizens with access to basic services and adequate housing has more than tripled from 100 million in 1990 to 318 million in 2014. 62 This has become possible through major investments into cities, including public housing programmes that are described in Part I of this report, including today's flagship housing programme PMAY. Today, as per Part I, the total urban housing demand is estimated to be 12 million units. 8.5 million units have been sanctioned, out of which only 27 percent have been completed while 23 percent are already occupied. Further, out of a total investment of INR 5.05 lakh crores, central government has contributed INR 51.162 crores.

However, demographic and economic changes cause rapidly increasing demand for adequate habitats, including connected land, infrastructures and housing, asking urban leaders to further increase their efforts. In fact, India has made consistent progress in reducing the share of households living with slum condition as per the UN MDG/SDG measure: while 54.9 percent of urban households fell under this category in 1990, the share radically declined to only 24 percent in 2014.63 However, given the simultaneous increase in the total number of urban households, the number of urban households with substandard housing has remained largely the same: approx. 2.64 crores in 1990 and approx. 2.55 crores in 2014.62 This shows that despite the laudable efforts and achievements, evident in the relative decline of housing poverty, Government of India needs to significantly step up its efforts of addressing the housing backlog (curative policies), while also providing affordable alternatives to new slum formation (preventive policies). Therefore, it is now time for India to heavily expand its investment to master its rapid urban future and to harvest the urbanization dividend.

Considering the above, fiscal instruments are a critical complement to the traditional regulatory and planning measures in cities. Particularly land-related charges under the revenue regime need to become more affordable and more inclusive, and property taxation would produce significant co-benefits if it was imposed solely on site value (instead of on both site and buildings). Based on the previous descriptive and diagnostic parts, the following sections provide a brief list of tentative recommendations, which (as per the TOR) are intended to provide a basis for discussions and that can be detailed further in separate assignments.

Given the interdependencies between national and subnational frameworks, actors and programmes, and given the strategic nature of the larger-picture observations in Part I and II, the following recommendations will typically apply to both the national and subnational level. However, Sections I and II on demand and finance tend to be more relevant for the central level, Section III on supply more relevant for the state and city level, and Section IV on governance relevant to all three levels (e.g. for interdependencies of national subsidies or environmental regulations for state programme design and local implementation).

[62] Authors' calculation based on UN and WB data.

[63] https://data.worldbank.org/indicator/EN.POP.SLUM.UR.ZS?locations=IN&view=chart. Accessed on June 26, 2019

Section I – Understanding and strengthening households' demand for housing.

Recommendation 1: Improve the definition of 'affordability' to enable access to 'adequate habitat and housing'.

This recommendation responds to the identified need to make more modest assumptions about households' co-payment capacity (Finding 2), as a precondition of improving the targeting to low-income households and of building housing finance ecosystems inclusive of low-income households.

A. **Consider defining affordability for inclusive finance of housing demand, based on a sliding scale of income/ expenditure share affordable for housing.** EWS households tend to afford the lowest income share (e.g. 15 percent), due to high priority expenditures (food, energy, transportation). LIG households can afford a little bit more (e.g. 20 percent) and MIG households still more (e.g. 25 percent). Only HIG households can afford the conventional assumption of 30 percent; using such a high share for all other income groups leads to policy and market failure.

B. **Define affordability for inclusive housing supply, considering transportation cost versus location cost trade-offs and promoting connected developments.** Households at central locations tend to be able to spend relatively more on housing (given the improved access to economic opportunities and the savings in transportation costs). The increase in affordable project cost at better-connected locations is particularly pronounced for lower income households, as transportation makes up a larger expenditure share. Moreover, housing at central locations also reduces negative externalities (e.g. traffic congestion and pollution), imposing high costs on society and the environment; thus, housing at adequate locations should be promoted and, where applicable, even subsidized at higher rates than disconnected developments.

C. **Define maximum price ceilings for affordable housing projects, considering commuting costs and access to finance.** Transportation costs necessary to reach economic opportunities from any given location are an important parameter of income disposable for housing (e.g. EMI of a housing loan). Furthermore, access to housing finance across the diverse characteristics of households of different socioeconomic groups (e.g. income groups, formal versus informal labourer) is critical for translating recurring payments (e.g. monthly or weekly) into a large lump sum, taking housing off project budgets.

Section II – Expanding access to affordable housing finance

Recommendation 2: Consider promoting housing finance products that aid low-income and vulnerable households in managing risk, particularly income and expenditure shocks.

This recommendation addresses the need to expand lending to EWs and LIG households, inter alia through addressing real or perceived risks. (Finding 6)

- **Consider technical assistance for designing pro-poor housing finance products.** Such products are not only truly affordable to low-income households – inter alia considering the payment capacity identified above – but also help to manage risks through built-in safety nets and convenient and flexible product characteristics. They are, as such, a precondition for reducing risk in the sector and in empowering intermediaries for refinancing.
- **Consider partnerships with non-conventional financial institutions, such as credit and savings cooperatives or microfinance institutions, that truly reach the poor.** Be aware that such institutions may be required to charge higher interest rates, but are still more inclusive than formal institutions that exclude the many 'unbankable' clients. Avoid the pitfall of regulating interest rates, rather consider means that reduce the intermediaries' risks and costs, such as improved tenure security (Recommendation 8, Recommendation 9, Recommendation 10, and Recommendation 11) or concessional liquidity (Recommendation 3).

Recommendation 3: Consider providing liquidity to financial intermediaries that truly service EWS and LIG clients, aiding the building of competitive markets providing access to long-term and low-interest credit for all.

This recommendation addresses the identified need for liquidity that those non-conventional lenders face that more likely reach poor and low-income households. (Finding 6)

A. **Consider financial assistance to truly inclusive financial intermediaries** that truly lend out to EWS and LIG households. An allocation of INR 100 lakh crore may be appropriate to kick off the sector.

B. **Consider the creation of a large-scale liquidity facility.** Such an SPV may blend multiple international and national sources and thereby mobilize and leverage, over time, a majority share of private investment.

C. **Consider making the SPV eligible for CSR investments,** reducing the allocations required from government and aiding the targeting to EWS and LIG.

D. **Consider concessional liquidity to inclusive lenders at own cost of fund.** Charge to the SPV the government's own cost of fund (i.e. government bond yield), possibly with a minimal spread to cover administrative expenditures to minimize market distortions and own risks and costs to Government.

Section III – Enabling housing supply to effectively respond to demand.

Recommendation 4: Provide basic infrastructure in all under-serviced communities.

This recommendation addresses the identified need for basic services in line with SDG 6 as well as other development objectives such as public health. (Finding 8)

A. Consider de-linking service provision from secure land tenure and permissible land use. This is required in order to be able to reach all households in substandard housing and with lack of access to basic services, as a precondition to achieve larger development objectives such as public health and environmental awareness.

B. Consider minimal co-payments from households to help building a financial history and to enable their access to finance. Affordable co-payments - without unnecessarily undermining households' capacity to later invest into their own housing may be set at, for example, 10 percent of infrastructure cost to be collected by a critical share (e.g. 70 percent) of community households before the intervention starts. To be politically legitimate, the mobilized resources can be used within the community, for example for kicking off a livelihood programme around solid waste collection, or subsidies for entry-level housing loans (see next point).

C. Consider linking co-payment performance as a precondition for access to housing microfinance entry products, such as partially subsidized and risk-insured microloans for minimal home improvement (e.g. durable floor to reduce child mortality). Thereby, households can graduate loan products based on performance, reducing lenders risk.

D. Consider nudging service provision with negotiations about the tenure status. For details refer to Recommendation 8, Recommendation 9, Recommendation 10, and Recommendation 11. However, without imposing any conditionalities (see item A above).

Recommendation 5: Introduce 'In-Situ Slum Upgradation' (ISSU) as a new vertical under PMAY.

This recommendation addresses the identified need for upgrading the many, possibly majority of slums where the land as a resource mechanism is not powerful enough to pay for an intervention. (Finding 9)

A. Consider ISSU as a strategic tool for improvement of many, possibly the majority of slums, effectively complementing (but not substituting) the 'land as a resource' mechanism under ISSR where the latter may be unsuitable, for example, for limited site value (e.g. in smaller urban agglomerations).

B. Consider an incremental strategy that focuses in poverty alleviation and enabling markets, for example by overcoming collective action hurdles in the provision of basic services and establishing of tenure security, while minimizing market pressures in upgraded communities.

Recommendation 6: Promote rental housing, especially through small-scale private landlords

This recommendation addresses the identified need for rental housing and the opportunity to collaborate with small-scale landlords for bottom-up densification of existing communities and for building an asset base amongst India's growing middle class. (Finding 11)

A. Consider a focus in small-scale landlords, which may aid densifying existing settlements (e.g. by adding one or multiple rooms for rent to existing properties), thereby making a positive contribution to land-use efficiency, reducing the need for new land supply, and investing in small-scale assets to sustain a growing middle class.

B. Consider providing concessional access to credit and technical assistance for private rental housing construction by MIG, LIG or even EWS landlords, for renting out to their peer tenants with which they may establish social relationships that aid the operation and maintenance of the asset.

C. Consider financial support to small-scale landlords as a means for asset creation amongst India's growing middle class, rather than subsidizing larger institutional landlords.

D. Consider sizing support (subsidies) at a level lower than for ownership housing, but with suitable conditions to ensure affordable rent. Even households who already benefitted under PMAY may be considered eligible, if they effectively aid the expansion of the housing stock at minimal fiscal cost to government.

Recommendation 7: Test the supply of 'adequate habitat and housing' projects that are inclusive, sustainable, resilient, and safe (SDG 11).

These recommendations respond to multiple, interlinked diagnostic findings indicated below.

A. Consider focusing on adequate location of new development and/or adequate transportation linkages to ensure accessibility and connectivity. Transit-oriented Development (TOD) and Housing-oriented Transit (HOT) linkages are critical ingredients for building better cities, harnessing urbanization for economic growth, socio economic inclusion and environmental protection. (Finding 13)

B. Consider innovative partnerships for land supply. Explore the release of public lands (short-term) and partnerships for guided land development and negotiated land purchases (medium term). Where appropriate also consider acquisition at fair prices to complement land pooling and land readjustment. (Finding 14)

C. Consider heterogenous development, exploring a mix of land uses, plot sizes and infrastructure standards as a means for promoting mixed income and for creating internal cross-subsidies through differential land pricing. (Finding 15)

D. Consider enriching this mix with an incremental approach to development, providing a partially subsidized starter environment that mobilizes beneficiary-led investments into improving this habitat. (Finding 16)

E. Consider diversifying housing prototypes through allocation of an adequate proportion of land for incremental development. Within mixed developments, exploit the modern range of starter options, including multi-story incremental housing. (Finding 17)

F. Consider developing a catalogue of starter housing prototypes, designed for incremental development and addressing a rich set of sociocultural, economic and climatic environments of India. Such a starter catalogue would not only inform the innovation of habitat and housing projects under this recommendation, but also the reform of enabling development control regulations (Recommendation 12C).

G. Consider integrating climate change adaptation strategies, increasing resilience regarding water, waste, heat, energy and durable shelter. Amongst other components, rainwater harvesting and retention as well as ground water recharge are critical for India's future; solid waste management is imperative, not only to protect water resources; urban vegetation can contribute to cooling; solar panels generate income and energy. Durable shelter (e.g. solid core house) can protect against natural hazards. (Finding 18)

Section IV – Enhancing governance to enable thriving and inclusive habitat and housing markets, balancing demand, finance and supply.

Nota bene: the following recommendations in regard to land tenure (Recommendation 8, Recommendation 9, Recommendation 10, and Recommendation 11), with adequate incorporation into policies and legal bodies, can constitute powerful instruments in preventing the root causes for land informality and housing unaffordability, thus preventing informal land markets, informal settlements barred from service provision and inadequate housing resulting from lack of investments due to insecurity. ***All details are to be worked out according to each Indian State's regimes for land management and urban planning.***

Recommendation 8: Improve tenure security for all, considering the full land tenure continuum.

This responds to the identified need to find tailor made solutions for all households within the land tenure continuum.

A. Expand titling for all households with legitimate land possession. Consider using alternative documentation, such as vanshavali.

B. Consider strategic support all other households – occupiers lacking evidence of legitimate acquisition – on public and private land in obtaining legitimate access to the land. Consider arrangements that do not incentivize squatting while acknowledging the limited alternatives of the urban poor in accessing adequate land. Consider:

   - Long-term leasehold between landowner and occupiers with restricted and possibly collective land use rights balancing community and market needs.
   - Land acquisition by a trusted intermediary then leasing it to the community. (Possibly, the latter is better done through a private intermediary to reduce the risk of financial default due to moral hazard.)
   - Land use right certificates, such as under the Jaaga Mission.

   Where none of the previous options is possible, consider:

   - Temporary no-eviction guarantees, such as under the Parivartan Slum Networking Programme (Annex 6), enabling public departments to install infrastructures necessary to achieve public objectives as well as private households to invest in their housing.

C. Evictions without adequate alternatives should be avoided by all means. Adequate alternatives provide adequate housing at adequate locations and at affordable cost.

Recommendation 9: Simplify and streamline procedural regulation in order to improve access to tenure security for all.

This recommendation responds to the identified need pragmatically remove procedural hurdles to land tenure access (Finding 21).

A. Consider rapid issuance of surrogate documents, such as a vanshavali, that can serve for regularization of RoR.

B. Consider the setting up of a one-stop booth where all urban land management and urban planning procedures may be made available. There, households can submit all evidence and any forms necessary for obtaining title without visiting multiple government departments.

C. Consider deeper integration between revenue and planning regimes. For example, the removal of any restrictions of rights under new tenure (e.g. non-agricultural permit) may be automatically included in land supply mechanisms, such as higher land deductions during land pooling and readjustment, or lower purchase cost during acquisition; thus, once the land is serviced and zoned for development under the planning regime, revenue regime restrictions should no longer counter urbanization.

Recommendation 10: Consider eliminating fiscal hurdles to tenure security and functional land records and markets.

This recommendation responds to the identified need pragmatically remove procedural hurdles to land tenure access (Finding 22).

A. Consider replacing unaffordable one-off lumpsums for land transfers and land use conversion fees by an affordable recurrent payment. For example, consider payment of the current level of fees over extended periods, such as 10 or more years. Also consider frequent (e.g. monthly) payments, possibly pegged to other collections (e.g. electricity bill) to minimize cost of collection.

B. Consider recording land transfer or use conversion against nominal fees. The level of charges may be set to just cover the administrative cost of land management and urban planning procedures). Any revenue losses can be offset through taxation of land and/or properties solely based on land value; land value taxation is the preferred source of public revenue. (Recommendation 13) Consider charging either a surcharge (e.g. affordable housing cess, similar to the education cess) to the property tax (small solution) or by increasing the property tax itself (large solution).[64]

Recommendation 11: Consider 'a change of paradigm' regarding untenable and objectionable land.

This recommendation responds to the identified need to reduce resource-intensive relocation projects that may even increase the vulnerability of urban poor households, rather than reducing poverty (Finding 23), for example in case of settlements in legal conflict with water bodies or railways land.

A. Consider updating revenue records to reflect de-facto land-use changes, where applicable. For example, if historic water bodies have vanished, revenue records can be updated to remove the conflict between de-facto occupation and de-jure (but non- existent) water bodies, as already practiced in Odisha.

B. Consider reforms of environmental regulations that enable human settlements in environmentally sensitive areas, however conditional on a set of compulsory environmental safeguards. For example, settlements along existing water bodies can be upgraded with environmental infrastructure (e.g. interception sewer), and services (e.g. solid waste management) to find pragmatic solutions to the interlinked environmental and housing crises. Notably, the value increase from upgrading with land tenure and infrastructure can be captured and sustain the costs of installation and operation and maintenance.

C. Consider formalizing settlements on railways lands. Again, long-term land use rights in exchange for long-term financial compensation allows to structure a win-win for all parties, unlocking underutilized railway lands and creating collateralizable assets for households.

[64] The rate of the levy/tax should be set so to compensate for the loss in other land-related revenues. For example, if a land transfer charge of 10 percent would happen any 24 years on average, then an annual payment of 0.6 percent or a monthly payment of 0.05 percent would result in the same revenue – but be significantly more affordable. In order to minimize collection cost, frequent (e.g. monthly payments) could be pegged to other collections, such as electricity bills.

Recommendation 12: Improve development control to become more efficient, investment-friendly and inclusive of the urban poor.

This recommendation responds to the identified need for increasing land use efficiency and lowering barriers to entry into the formal market (Finding 19.

A. Consider increasing permissible FSI where appropriate. Based on necessity to finance improvements of public infrastructure – that may be required for servicing the higher densities – consider exacting betterment charges for additional FSI. Charges may be payable with a building permit, or TDR may be auctioned and traded freely within any given area. However, charges should not exceed the cost of infrastructure upgradation, because any charge on construction has the effect of a tax, potentially reducing much needed construction investments and thus imposing an excess burden on market and causing a dead weight loss.
B. Consider removing indirect constraints of the usability of land. 65 Deregulation is a short-term and cost-effective measure for unlocking floor space supply and, thus a substitute for the more challenging supply of additional, service land. In addition, densification of existing cities has significant social and environmental co-benefits. Amongst other regulations, consider removing setbacks and margins (e.g. amongst neighbours that mutually agree to do so e.g. to extend existing buildings or to insert additional buildings) or minimum parking requirements that unnecessarily increase the cost of housing development and indirectly subsidize private motor vehicles. (Shoup, 1997)
C. Consider introducing development control regulations that embrace incremental development and permit affordable starter standards. This measure reduces the entry cost to the formal housing market while promoting and incremental development in line with the ambitions and capabilities of all income groups and guiding investments towards fully adequate housing (Text Box 7).

Recommendation 13: Consider land value taxation (LVT) as a fiscal measure to sustain tax revenues while taming land speculation, guiding investment, and promoting employment generation in the most equitable and most efficient way possible.

This recommendation responds to the identified opportunities of LVT (Finding 25) and provides a fiscal mechanism for expanding the supply of housing by unlocking underdeveloped areas. As such, LVT serves as an effective surrogate for urban land supply and complement to conventional planning tools, and the inherent promotion of compact cities makes an important contribution to environmental protection (Finding 14). Further, LVT is also a means for improving the efficiency and equity of urban land management and taxation (Finding 24). Last, LVT is already anchored in India's Value Capture Finance Policy Framework, 2017, providing a basis for designing policy initiatives.

A. Consider a paradigm shift in the taxation of properties solely based on land value. LVT is a preferred source of tax revenue, promoting equitable and efficient market outcomes. LVT collects revenues solely based on land value, but not on any improvement of the land (e.g. a building). LVT captures a share of land value and of any value increases (reducing land price inflation), aids the control of speculation, and promotes the development of underdeveloped lots. As such LVT contributes to the supply of housing, reducing market prices and making housing more affordable.
B. Consider simple, fair, transparent, and accountable valuation mechanism. Land value may be assessed based on settlement characteristics (e.g. distance and connectivity to primary social and economic land uses, level of overall service provision and economic activity in the settlement), plot characteristics (e.g. level in the street hierarchy, access to open space, local service provision), and permitted land use (e.g. FSI, residential versus commercial).

Recommendation 14: Design an integrated subsidy system that promotes efficiency and equity between different housing schemes and income groups, redistributing to the most poor and vulnerable households and minimizing fiscal burden to government and market-distortions.

This recommendation responds to observations on the current subsidy regime (Finding 26) and the need for redistribution to the urban poor (SDG 10), as well as considering the need to build housing finance ecosystems truly inclusive of economically-weaker and low-income households (Finding 6 & Finding 7).

A. Consider regressive subsidies, phasing out support for higher income groups. Lower-income households should receive a larger subsidy (by fiscal cost) while the subsidy for better-off households reduces ("regresses").

B. Consider progressive affordability (purchasing power) with increasing income. To be fair and to reduce market distortions, better-off households with less subsidies must still be able to afford more than poorer households with more subsidies.

C. Consider further research to improve the understanding the fiscal cost of current housing programmes (e.g. PMAY verticals) as a basis for designing an integrated subsidy regime that is efficient and fair across schemes and income groups that allows government to (i) scale up the number of housing units developed in the market without running out of allocation and (ii) build a thriving low-income housing finance market (see Recommendation 2 & Recommendation 3).

Conclusion: Tentatively Recommended Initiatives

Finally, synthesizing and grouping the above findings and recommendations across the four dimensions of the Rapid Urbanism framework, the study's authors suggest eight distinct thematic areas for consideration as pilot projects/initiatives, aiming for 'Removing Hurdles towards Affordable Habitat and Housing for All':

DEMAND

FINANCE

GOVERNANCE

GOVERNANCE

GOVERNANCE

SUPPLY

SUPPLY

SUPPLY

1. **Improved affordability definition inclusive of all, inferring the efficacy of policy making.**
2. **Improved access to finance for all,**
   reaching EWS & LIG and nudging with integrated subsidies system.
3. **Deregulation of development control,**
   increasing densities and improving affordability.
4. **Land tenure security for all,**
   eliminating regulatory and fiscal barriers to titling.
5. **Property and land taxation solely based on land value,**
   guiding urbanization and growing the economy.
6. **'In-situ Slum Upgradation' pilot project,**
   adding a vertical to or complementing PMAY.
7. **'Adequate (New) Habitat and Housing' pilot project,**
   expanding access rapidly & fiscally responsibly at suitable location.
8. **'Bottom-up Densification' through 'Small-Scale Private Rental',**
   promoting compact cities, resource efficiency and housing affordability.

The first two initiatives – on demand and finance – apply especially to the national level (e.g. updating PMAY baselines, mandating NHB, allocating resources), but also to the three partner states – Kerala, Odisha and Tamil Nadu (e.g. designing their own policies or aligning housing schemes with financial institutions).

First, improving the affordability definition (see Recommendation 1) is critical for establishing proper baselines that enable the development of low-income housing markets, both regarding production and finance. In particular, it is suggested to focus on understanding payment capacities across income groups and in establishing prudent bench lines in policies and programmes. Table 1 provides a basis for discussion, based on interview results and national and international experience. Furthermore, households' transportation costs need to be considered when estimating affordability. Therefore, locations of housing projects should be well located or require additional transportation investments.

Second, integrated housing finance ecosystems (see Recommendation 2, 3 and 14) match households' payment capacity with pro-poor housing finance products, such as long-term lease-to-own contracts, micro mortgages, or loan cycles with client graduation. To develop such ecosystems requires (a) technical assistance for low- risk and affordable housing finance products, (b) liquidity for scaling up emerging pro-poor initiatives, and (c) targeted subsidies for reducing/managing risks and enabling market-based solutions (in complement to the poverty reduction objective).

Further, the three governance initiatives apply especially to the state level; however, findings and recommendations may also apply to the central level, for example for relevant for national scheme design. As a next step, it is important to further assess the demand amongst the partners.

Third, deregulation of development control aids the development of denser and more compact cities, with significant

economic, social and environmental co-benefits, relaxation of starter standards further reduces the capital required to enter the formal housing market and frees up resources that can possibly be invested in better land (a key constraint to adequate habitats).

Fourth, land tenure security for all (see Recommendation 8, 9, 10, and 11) may be achieved by embracing the land tenure continuum, significantly expanding the policy options for increasing tenure security without causing market distortions or unleashing undue market pressures on the poor, by simplifying and streamlining procedural regulations (e.g. with a one-stop-booth where households can undertake all necessary planning and land management tasks) and by removing fiscal barriers (e.g. by eliminating unaffordable lump sum fees). Lastly, in many cases also a review of related legal bodies (e.g. environmental regulations) and a responsible reform may acknowledge competing interests while maintaining high standards (e.g. environmental safeguards).

Fifth, Land Value Taxation (see Recommendation 13) has been identified as a priority area, given its outstanding significance for land supply, municipal revenue, housing affordability, economic growth and environmental preservation. In the light of the SDGs, seeking to inter alia balance economic gains and environmental protection, LVT is highly promising. Therefore, it is recommended to consider a respective initiative in all states. HUDD-OD already requested support on taxation of urban properties solely based on site value and, in the eyes of the study authors, this initiative should be supported with adequate resources.

Last, on the supply side, there is a clear need for complementing the existing pillars of housing policies and programmes.

Sixth, 'In-Situ Slum Upgradation' (ISSU) (see Recommendation 4 and 5) should be considered both at the national level (e.g. adding a vertical to PMAY) and at the state level (e.g. as already happening with the Jaaga Mission in Odisha).

Seventh, new 'Adequate Habitat and Housing' (see Recommendation 7) developments are needed, embedded in larger land management, planning and industrial policies. Such projects may be promoted at the central level (e.g. as a new vertical under PMAY or a separate programme going beyond just land supply but including the promotion of mixed-use, mixed-income, differential standards and pricing). Odisha expressed interest in developing 64 acres (26 hectares) of public land, including a large site of about 40 acres (16 hectares). If a pilot project was able to produce sufficient revenues to acquire land for a successive project – while realizing other social and environmental objectives – then this would be a major step forward. Similarly, discussions in Kerala indicated interest in developing peri-urban sites under pressure of urbanization. (Further, given that lack of services is not a significant issue (making ISSR and ISSU obsolete), 'Adequate Habitat and Housing' may be prioritized on the supply side in Kerala.) Finally, in TN collaboration with TNHB and TNSCB would allow to enhance plans for townships and diversify the range of housing prototypes offered there.

Eighth, 'Small-Scale Private Rental' (see Recommendation 6) could contribute to housing supply and to urban densification, and it would be fiscally responsible, provided that subsidies are lower than for ownership housing. Thus, small-scale private rental is suggested as a new initiative, especially at the central level (possibly under PMAY) and/or at the state level.

Eventually, for successful delivery the multiple initiatives will need to be coordinated across government scales (national, state, local) and sectors (demand, finance, governance, supply). While the study has compartmentalized complex interdependencies into select diagnostic findings, programmatic recommendations and – in this forward looking conclusion – tentatively recommended initiatives, ultimately interventions will need to reassemble the parts: for example, an 'adequate habitat and housing pilot project' would not just deliver a safe, resilient, inclusive and sustainable settlement (SDG

11) on the supply side, but also need to accommodate the heterogenous need and demand (e.g. payment capacity, housing prototype, form of tenure), differentiated access to finance across income groups (e.g. EWS, LIG, MIG) and categories of livelihoods (e.g. formal/informal) and assets (e.g. starter prototypes) – as well as encompass an enabling governance framework (e.g. development control). This again will require coordination amongst stakeholders across national, state and local level.

As next steps, further discussion and negotiations ought to take place in order to agree on the potential pilot initiatives and their respective geographies. (For example, should the central or state government serve as the policy lead, or should state or city government as the implementation lead). This study aims at contributing towards structuring such debate. The study authors wish all stakeholders a successful way forward.

References

1. Aga Khan Development Network. (1989). Aranya Community Housing [The Aga Khan Award for Architecture: Application, Technical Review Reports and further documentation]. Retrieved from https://www.akdn.org/sites/akdn/files/media/documents/AKAA%20press%20kits/199 5%20AKAA/Aranya%20Community%20Housing%20-%20India.pdf
2. Anand, G., & Deb, A. (2017). Planning, 'Violations' and Urban Inclusion: A study of Bhubaneshwar. Delhi: Yuva & IIHS.
3. Angel, S. (2011). Making Room for a Planet of Cities. Cambridge; MA: Lincoln Institute. Angel, S., Sheppard, S. C., & Civco, D. L. (2005). The Dynamics of Global Urban
4. Expansion. Washington; DC: World Bank.
5. Ayala, A., van Eerd, M., & Geurts, E. (2019). The 5 Principles of Adequate Housing. In My Liveable City. Retrieved from http://www.myliveablecity.com/book-purchase.html
6. ASCI. (2016). Study on Land Acquisition vs Land Pooling. National Housing Bank.
7. Ballaney, S., & Patel, B. (2009). India Infrastructure Report 2009: Land-A Critical Resource for Infrastructure. Retrieved from http://www.iitk.ac.in/3inetwork/html/reports/IIR2009/IIR_2009_Final_July%2009.pd f
8. Bertaud, A., Bertaud, M. A., & Wright, J. O. (1988). Efficiency in land use and infrastructure design: An application of the Bertaud Model. Retrieved from The World Bank website: http://documents.worldbank.org/curated/en/572091468739300255/pdf/multi- page.pdf
9. Bhan, G. (2018). From the basti to the 'house': Socio-spatial readings of housing policy in India. Current Sociology, 65(4).
10. Bhan, G., Anand, G., & Harish, S. (2014). Policy Approaches to Affordable Housing in Urban India: Problems and Possibilities. Bangalore: IIHS-Rockefeller Urban Policy Partnership.
11. Boonyabancha, S. (2004). A Decade of Change: From the Urban Community Development Office to the Community Organization Development Institute in Thailand. In D. Mitlin & D. Satterthwaite (Eds.), Empowering Squatter Citizen: Local Government, Civil Society and Urban Poverty Reduction (pp. 25–53). Routledge.
12. Brown, W. (2003). Building the Homes of the Poor – One Brick at a Time Housing Improvement Lending at Mibanco (No. 4). Retrieved from ACCION Insight website: http://www.habitat.org/lc/housing_finance/pdf/Insight_4.pdf
13. Buckley, R. M., & Kalarickal, J. (Eds.). (2006). Thirty Years of Shelter Lending: What Have We Learned? Retrieved from http://siteresources.worldbank.org/INTHOUSINGLAND/Resources/339552- 1153163100518/Thirty_Years_Shelter_Lending.pdf
14. Buckley, R. M., & Mathema, A. (2008). Some Macroeconomic Implications of Real Estate Regulations: The Case of Accra. Urban Studies, 45(11).
15. Butala, N. M., VanRooyen, M. J., & Patel, R. B. (2010). Improved health outcomes in urban slums through infrastructure upgrading. Social Science & Medicine (1982), 71(5), 935–940. https://doi.org/10.1016/j.socscimed.2010.05.037
16. Caminos, H., & Goethert, R. (1978). Urbanization Primer: Project Assessment, Site Analysis, Design Criteria for Site and Services Or Similar Dwelling Environments in Developing Areas, with a Documentary Collection of Photographs on Urbanization. MIT Press.
17. Cattaneo, M. D., Galiani, S., Gertler, P. J., Martinez, S., & Titiunik, R. (2009). Housing, Health, and Happiness. American Economic Journal: Economic Policy, 1(1), 75–105. https://doi.org/10.1257/pol.1.1.75
18. Cities Alliance. (2017). The transformative role of city-community partnerships in the fight against Ebola. Brussels: Cities Alliance.
19. City Say. (2018). Housing Needs of the Urban Poor in Nagpur: Assessing the Applicability of the PMAY, Housing for All Mission. Mumbai: Youth for Unity and Voluntary Action and Indian Housing Federation.
20. Cohen, M. (2007). Aid, Density, and Urban Form: Anticipating Dakar. Built Environment, 33(2), 145–152.
21. CRDF. (2018). Preparation of Tamil Nadu Urban Housing and Habitat Policy of Tamil Nadu. CEPT University.

22. Das, A., & Mukerhjee, A. (2018). Demystifying Urban Land Tenure Issues: The Curious Case of Small Cities in India: A Case Study from Odisha. Delhi: GIZ GmbH.
23. Das, A., Chatri, A. K., Jacob, R., Jose, M., & Mahalingam, K. (2018). Documentation of Learnings from Beneficiary Led Individual House Construction (BLC) Implementation in Tamil Nadu. Delhi: GIZ-GMBH.
24. Das, A., Potti, N. K., Mukherjee, A., & Mazumder, A. (2017). Prevailing Rental Housing Practices among Urban Poor. Delhi: GIZ-GmbH.
25. Das, C., Karamchandani, A., & Thuard, J. (2018). State of the Low Income Housing Finance Market 2018. Mumbai: FSG.
26. Davidson, F., & Payne, G. (2000). Urban Projects Manual: A guide to preparing upgrading and new development projects accessible to low-income groups. (2nd revised edition). Liverpool University Press.
27. Department of Housing, Kerala. (2011). Kerala State Housing Policy. Thiruvananthapuram: Government of Kerala.
28. Desai, S. B., Dubey, A., Joshi, B. L., Sen, M., Sharif, A., & Vanneman, R. (2010). Human Development in India: Challenges for a Society in Transition. New York: Oxford University Press.
29. DTTILLP. (2016). Mainstreaming Affordable Housing in India: Moving towards Housing for All by 2022. Deloitte.
30. Dye, R. F., & England, R. W. (2010). Assessing the Theory and Practice of Land Value Taxation. Cambridge, MA: Lincoln Institute of Land Policy.
31. European Commission, E. (2017, May). The EU Blending Framework. Presented at the Joint Workshop on the PSUP, Brussels.
32. Garcia-Huidobro, F., Torres Torriti, D., & Tugas, N. (2008). Time Builds!
33. EquipoArquitectura.
34. Goethert, R. (2005). The Housing Policy Map. Retrieved from http://sigus.scripts.mit.edu/x/archived/challengecourse/pdfs/housingmap.pdf
35. Goethert, R., Nohn, M., & Schmidt, D. (2014). Leaving No-One Behind: How to access land, design shelter and deliver finance to the urban poor. Presented at the UN World Urban Forum.
36. GoK. (2012). Kerala State Urbanisation Report: A study on the scattered human settlement pattern of kerala and its development issues. Department of Town and Country Planning.
37. Government of Kerala. (2019, May 10). LIFE. Retrieved from Local Self Government Department: http://lsgkerala.gov.in
38. Gulyani, S. (2016, June 23). Success when we deemed it failure? Revisiting sites and services 20 years later. Retrieved November 5, 2016, from World Bank Sustainable Cities
39. Blog website: https://blogs.worldbank.org/sustainablecities/success-when-we- deemed-it-failure-revisiting-sites-and-services-20-years-later
40. H&UDD. (2018). Policy Note 2018-19. Government of Tamil Nadu.
41. H&UDD, Odisha. (2015). Policy for Housing for All in Urban Areas, Odisha. Government of Odisha.
42. Hamdi, N. (1995). Housing without Houses: Participation, flexibility, enablement.
43. Harish, S. (2016, May 10). Mind the gap: Indian cities need 18 million houses – even as nine million houses lie vacant. Retrieved from Scroll: https://scroll.in/article/823460/nine- million-houses-vacant-18-million-needed-explaining-the-housing-gap-in-indias-cities
44. Harish, S. (2016). Public Social Rental Housing in India: Opportunities and Challenges.
45. Economic and Political Weekly, 49-56.
46. Harish, S. (n.d.). Urban Rental Housing.
47. Hausmann, R. (2013, September 26). Housing versus Habitat. Retrieved April 14, 2014, from http://www.project-syndicate.org/commentary/reframing-low-income-housing-policy- by-ricardo-hausmann
48. Hingorani, P. (2011). Revisiting Low Income Housing: A Review of Policies and Perspectives. India Urban Conference 2011: Evidence and Experience. IIHS.

49. HSMI-HUDCO Chair-NIUA. (2017). Urban India: Status of Demography, Economy, Social Structure, Housing and Basic Infrastructure.
50. Inclusive Cities Partnership Programme. (2018). Demystifying urban land tenure issues- A case study from Odisha. Retrieved from https://www.urban- industrial.in/e15/e1533/e1534/e4479/e4480/e4540/Demystifyingurbanlandtenureissue s-AcasestudyfromOdisha.pdf
51. JLL India. (2018). Affordable Housing: The Indian Perspective and Future Outlook, Building change & sustainable communities. Jones Lang LaSalle Property Consultant.
52. Kanwar, S. (2019, May 10). How the PM's Affordable Housing Scheme Went From Promising to Dysfunctional. Retrieved from The Wire: https://thewire.in/urban/housing-urban-policy-scheme
53. Kerala State Planning Board. (2017). Approach Paper: 13th Five Year Plan.
54. Thiruvananthapuram: Government of India.
55. Kessler, E., & Steinberg, F. (2011). Inclusive Urban Redevelopment: Toward Livable Cities. In F. Steinberg, & M. Lindfield, Inclusive Cities: Urban Development Series (pp. 83- 142). Mandaluyong City, Philippines: Asian Development Bank.
56. Khan, S. (2014). The Other JnNURM: What does it mean for small towns in India? CPR Urban Working Paper 4.
57. Kundu, A. (2014). Exclusionary Growth, Poverty and India's Emerging Urban Structure.
58. Social Change, 44(4), 541-566.
59. Kundu, A., & Kumar, A. (2018). Cost-benefit analysis of housing vertical interventions for urban poor in large cities of Rajasthan. Copenhagen: Rajasthan Priorities: An India Consensus Prioritization Project.
60. Mahadevia, D. (2006). NURM and the Poor in Globalising Mega Cities. Economic and Political Weekly.
61. Mahadevia, D. (2006). NURM and the Poor in Globalising Mega Cities. Economic and Political Weekly, 3366-3403.
62. Mahadevia, D. (2011). Branded and Renewed? Policies, Politics and Processes of Urban Development in the Reform Era. Economic and Political Weekly, XLVI, 56-64.
63. Mathivathanan, G., Pichel, F., Dash, S. R., & Shrivasatava, S. (2019). The Odisha Liveable Habitat Mission: The process and tools behind the world's largest slum titling process. Catalyzing Innovation: Annual World Bank Conference on Land and Poverty. Washington DC.
64. McKinsey Global Institute. (2010). India's urban awakening: Building inclusive cities, sustaining economic growth.
65. Ministry of Home Affairs. (2011). Census. New Delhi: Government of India.
66. Mitlin, D. (2008). Urban Poor Funds: Development by the People for the People. IIED London.
67. MoHUA. (2018). Monitoring of Progress Pradhan Mantri Awas. Delhi: Mission Directorate, PMAY (U), DRMC-MoHUA, JS & MD (HfA), MoHUA, Government of India.
68. MoHUA. (2018). National Urban Policy Framework Draft. Government of India.
69. MoHUPA. (2007). National Urban Housing and Habitat Policy. Delhi: Government of India. MoHUPA. (2012). Report of the Technical Group on Urban Housing Shortage (TG-12).
70. Government of India.
71. MoHUPA. (2016). Pradhan Mantri Awas Yojana Housing. Delhi: Government of India.
72. Mukherjee, M., Sriva, A., Arora, K., De, B., Biswas, A., & Roy, U. (2016). Changing paradigms of Affordable Housing in Independent India. 3rd Residential Building Design & Construction Conference. Penn State: PHRC.
73. Nair, D. G., Gopikuttan, G., Vergragt, P., Enserink, B., Hendriks, C., Fraaij, A., & Dalmeijer,
74. R. (2005). Public housing schemes for the poor in Kerala: Recommendations for sustainable housing. Conference on Sustainable Building South East Asia, (pp. 493- 501). Malaysia.
75. NHB. (2018). Report on Trend and Progress of Housing in India.
76. Nohn, M. (2016, draft). How to Expand the Access to Affordable and Adequate Urban Land.
77. Technical Working Paper. Nairobi: UN Habitat, Urban Economy and Finance Branch.
78. Nohn, M., & Bhatt, B. (2007). Extract on slum upgrading, home improvement and poverty alleviation schemes. In

Gujarat Mahila Housing SEWA Trust, The Habitat and Employment of Ahmedabad's Poor. Report to NIUA and UNDP. Retrieved from https://app.box.com/s/6ui7j8zvfr8lc4lp5co8

79. Nohn, M., & Bhatt, B. (2014). How to Assess Security of Tenure and Emulate Mortgages for Financing Semi-Formal Homes: Lessons from Mahila Housing SEWA Trust. WIEGO, Cambridge/MA.
80. Nohn, M., & Goethert, R. (Eds.). (2017). Growing Up! The Search for High-Density Multi- Story Incremental Housing. Retrieved from http://tuprints.ulb.tu- darmstadt.de/6646/7/Goethert%20%26%20Nohn%20%282016%29%20-%20Multi- story%20Incremental%20Housing_1st%20edition_online%20PDF.pdf
81. Nohn, M., Goethert, R., & Holz, E. (2016). Leaving No-One Behind: How to access land, design shelter and deliver finance to the urban poor. Training Session. Presented at the Habitat III, Quito, Ecuador. Retrieved from https://app.box.com/s/wg06zweqpcb5gw2lkawwv81ok351lwam
82. Owens, K. E., Gulyani, S., & Rizvi, A. (2018). Success when we deemed it failure?
83. Revisiting Sites and Services projects in Mumbai and Chennai 20 years later. World Development, 106, 260-272.
84. Owens, K. E., Gulyani, S., & Rizvi, A. (2018). Success when we deemed it Failure? Sites and Services projects in Mumbai and Chennai 20 years later. World Bank, 106, 260-272.
85. PADCO. (1984). Site and Unit Design Handbook.
86. Pande, R., Holland, A., & Field, E. (2016). Contemporary and Emerging Issues, for W.E. Upjohn Institute for Employment Research. Ed. Jean Kimmel.
87. Payne, G. (2002). Land Rights and Innovation. London: Intermediate Technology Publications.
88. Payne, G., & Majale, M. (2012). The Urban Housing Manual: Making Regulatory Frameworks Work for the Poor. Taylor & Francis.
89. Philip, S. (2019, April 22). In Kerala, homeless move into own flats. Retrieved from The Indian Express: https://indianexpress.com/article/india/in-kerala-homeless-move-into- own-flats-5687483/?fbclid=IwAR12P9MauOltBNz-YcgQyzEYRjeSbHZmsWgrSQgwv7uEyfAMGuLBaK3VYNg
90. Prahalad, C. K. (2009). The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits. Upper Saddle River, New Jersey: Pearson Education.
91. Raman, N. (2011). The Board and the Bank: Changing Policies towards Slums in Chennai.
92. Economic and Political Weekly, XLVI(31), 74-80.
93. Rao, P. (2004). Transformation of Housing Policy in India - the Trend Towards Market Mechanisms. Delhi: Indian Institute of Public Administration.
94. Rosenberg, R. (2002). Microcredit Interest Rates. CGAP Occasional Paper, (1).
95. Royo-Olid, J. (forthcoming). Scarcity of adequate housing amidst financialising land markets: Approaches for urban inclusion through the case of metropolitan Odisha, India. University of Cambridge.
96. Rusling, S. (2010). Approaches to Basic Service Delivery for the Working Poor: Assessing the Impact of Mahila Housing Trust's Parivartan Slum Upgrading Programme in Ahmedabad, India. WIEGO, Cambridge/MA.
97. Rutherford, S. (1999). The Poor and Their Money: An essay about financial services for poor people. University of Manchester.
98. Sahu, G., Zachariah, Y., & Baksi, S. (2009). National Level Background Document on Urban Issues and Concerns: Laying Foundation for Urban India Reforms Facility (UIRF) with Focus on Small and Medium Towns in India. Urban India Reforms Facility (UIRF).
99. Shoup, D. C. (1997). The High Cost of Free Parking. Planners Press, American Planning Association.
100. Tarlo, E. (2003). Unsettling Memories: Narratives of the Emergency in Delhi. Berkeley: University of California Press.
101. Tiwari, P., & Rao, J. (2016). Housing Markets and Housing Policies in India. ADBI Working Paper 565.
102. Turner, J. F. C. (1968). Housing Priorities, Settlement Patterns, and Urban Development in Modernizing Countries. AIP Journal, 354–363.
103. Turner, J. F. C. (1976). Housing by People: Towards autonomy in building environments.

104. London: Boyars.
105. Venkat, T., & Subadevan, M. (2015). Implementation of JNNURM -BSUP : A Case Study of the Housing Sector in Chennai. Impact of Infrastructure and Governance Transformations on Small, Medium and Big Cities in India.
106. UN-Habitat. (2016). The Implementation of the Principles of Planned Urbanization: A UN- Habitat approach to sustainable urban development. Nairobi: UN-Habitat.
107. UN-Habitat. (2019). Financial Strategy for the Participatory Slum Upgrading Programme PSUP. (Peer-reviewed final draft). Nairobi: UN-Habitat.
108. UN-Habitat, & UNESCAP. (2008). Quick Guide 4: Eviction. United Nations Economic and Social Commission for Asia and the Pacific and United Nations Human Settlements Programme.
109. Vaidya, C. (1986). Taxation as an Instrument to Improve Urban Land Management in India.
110. Nagarlok Journal, 18(1), 25–37.
111. Wadhwa, K. (2009). Affordable Housing for Urban Poor. Delhi: National Resource Centre, SPA.
112. Wakely, P., & Riley, E. (2011). The Case for Incremental Housing. Cities Alliance Policy Research and Working Papers Series No. 1.

Annexes

Annex 1: List of meetings / interviews / site visits

Mission 1, May 21–31, 2019

1. GIZ Delhi, 2019-05-21 (concall)
2. Reinhard Skinner, SUD-SC; 2019-05-22 at 12:00 to 13:00; India Habitat Centre
3. Barsha Poricha, SUD-SC Odisha; 2019-05-22 at 13:00 to 15:30; India Habitat Centre, Library
4. Reinhard Skinner, SUD-SC; Vaidya, Chetan, SUD-SC Kerala; 2019-05-23 at 10:30 to 11:30; SUD-SC Kochi
5. Sahil Sasidharan, GIZ Kerala, Reinhard, Chetan; 2019-05-23 at 12:00 to 13:00; SUD- SC Kochi
6. Arpan Mazumder, GIZ; Sahil Sasidharan, GIZ Kerala; Ranjani KC, Habitat for Humanity (BLC housing finance study); Rakkee Thimothy, CSES (BLC tenure continuum study); 2019-05-24 at 11:00 to 12:15; GIZ Kochi
7. Riby Matthew, Smart Cities Mission Kochi; 2019-05-24 at 16:00 to 17:00
8. Site visit: Kalavathy Canal, Mattan Jari Area; 2019-05-25 at 09:00 to 12:00
9. TNHB site visit, Koundampalayam, Coimbatore (high-rise for LIG, MIG); 2019-05-26 at 17:30 to 18:00
10. Slum site visit (adjacent to TNHB site), Koundampalayam Coimbatore; 2019-05-26 at 18:00 to 19:00
11. TNSCB site visit, Bilal Nagar, Coimbatore (constructed under JNNURM); 2019-05-27 at 09:00 to 11:00
12. Site visit, Ukkadam, Coimbatore (low and middle-income neighbourhood, incl. multiple historic TNSCB interventions); 2019-05-27 at 11:00 to 12:00
13. A. Thirumurthu, Infrastructure Expert, PMU, Coimbatore Smart Cities Mission
14. A. Lakhmanan, City Engineer, Coimbatore City Municipal Corporation (CCMC)
15. Thiru Kumar, Executive Engineer, Coimbatore Division, TNSCB
16. TNSCB site visit, Coimbatore (remote periphery); 2019-05-27 at 16:00 to 19:00
17. Venu, GIZ Chennai; 2019-05-28 at 10:30 to 11:30
18. Ms. U.Manimekelai, Senior Planner, TNSCB Chennai; 2019-05-28 at 15:00 to 15:15 &
19. Shreya Gadepalli, Country Director, ITDP India; 2019-05-28 at 18:00 to 19:00
20. Mr. Rajasekaran, Executive Engineer & Town Planner, TNHB; 2019-05-29 at 11:00 to 12:00
21. Ms. U.Manimekelai, Senior Planner, TNSCB Chennai; 2019-05-29 at 14:00 to 15:00
22. Anupam Mishra, Economic Advisor (Housing), Joint Secretary; 2019-05-30 at 11:00 to 12:00
23. Kiran, GIZ Delhi; Scheduled: 2019-05-30 at 12:30 to 13:30
24. Debolina Kundu, NIUA; 2019-05-30 at 14:30 to 15:30
25. Sangeeta, Sa-Dhan; 2019-05-30 at 15:30 to 16:30
26. Abhijit Sankar Ray, World Bank; 2019-05-30 at 16:30 to 17:30
27. Anindita Mukherjee, CPR; 2019-05-30 at 18:00 to 20:00
28. Akshaya Kumar Sen, HUDCO HSMI; 2019-05-31 at 15:15 to 16:45
29. Amitabh Kundu, Scheduled: 2019-05-31 at 16:45 to 17:15
30. Mr. Vishal Goyal, Deputy General Manager, NHB; 2019-05-31 at 17:15 to 18:00
31. Shruti Gonsalves, CEO, SEWA Grih Rin; 2019-05-31 at 18:00 to 19:00

Mission 2, Jul 18–29, 2019

1. Bijal Brahmbhatt, Director, Mahila Housing SEWA Trust; 2019-07-19 at 10:00 to 10:45
2. Bimal Patel, Director, HCPDPM & President, CEPT University; 2019-07-20 at 12:00 to 13:00
3. Shirley Ballaney, Independent Urban Specialist & Lecturer; 2019-07-20 at 14:00 to 15:00
4. Rajendra Joshi, Director, Saath; 2019-07-20 at 16:30 to 18:00
5. PMAY Site: Yamuna apartments, Rajiv Nagar Ayojan Nagar ISSR, Ahmedabad; 2019- 07-21 at 13:30 to 15:00
6. Swapna Sakar Residency, Market-based affordable Housing Project, Lambha, Ahmedabad; 2019-07-21 at 15:00 to 17:00
7. Odisha GIZ and SUD-SC team meeting; 2019-07-23 at 11:00 to 12:15
8. NN, Deputy Director, AWAAS (Odisha Urban Housing Mission, OUHM); 2019-07- 23 at 12:45 to 14:30
9. BJB Nagar Slum, Bhubaneswar RAY ISSR site visit; 2019-07-23 at 15:30 to 16:30
10. Adwitiya Patro, GIZ: data meeting; 2019-07-23 at 17:00 to 19:00
11. Shri Mathi Vathanan, PS, HUDD Odisha; 2019-07-24 at 15:30 to 17:30
12. Kiran Rajashekariah, GIZ study lead; 2019-07-25 at 09:15 to 10:15
13. Thiru Rajesh Lokhoni, PS, TN-HUD; 2019-07-25 at 10:30 to 11:30
14. Mr. U. V. Jose, I.A.S., Chief Executive Officer, Life Mission, Govt. of Kerala; 2019- 07-26 at 10:00 to 11:00
15. P.B Sajan, Head of COSTFORD & Member of Board of Laurie Baker Centre; 2019- 07-26 at 14:30 to 15:30
16. Shri SM Vijayanand, Former Additional Chief Secretary and current Chairman of the Centre for Management Development (CMD); 2019-07-26 at 16:30 to 17:30
17. Kavitha Selvaraj, Director Cityworks; 2019-07-28 at 12:00 to 13:00
18. Thiru Rajesh Lokhoni, PS, TN-HUD; 2019-07-29 at 10:30 to 12:00

Other

- Jaime Royo Olid, PhD researcher, University of Cambridge (multiple Skype interviews on affordability, and land and housing markets in Odisha)

Annex 2: Rapid Urbanism

Background

The consultant uses Rapid Urbanism66 as an integrated framework, guiding the diagnostic analysis of the sector and the framing of programmatic recommendations. Rapid Urbanism is a political economy and spatial cum temporal model that is geared towards analysing inter- dependencies between housing, land, infrastructure, transportation, livelihoods, and the environment during rapid urbanization as well as towards structuring respective programmatic recommendations.

Rapid Urbanism considers various proven academic and professional frameworks, such as PADCO's Bertaud Model (Bertaud, Bertaud, & Wright, 1988) or the MIT's Urbanization Primer (Caminos & Goethert, 1978) widely used in World Bank's supply-side urban and housing programs in the 1970s and 1980s that have recently been reconfirmed (e.g. Owens, Gulyani, & Rizvi, 2018). These proven components are complemented with more recent innovations, such as a range of subsidy options and financial engineering commonly used downstream of World Bank-supported liquidity facilities with the objective of strengthening the demand side (e.g. down payment, buy-down, interest rate, vouchers; or, indexing for taking inflation out of the interest rate) or multi-story incremental housing as a means to generate higher densities and to pool the costs for accessing adequate land (Nohn & Goethert, 2017). The question how to access – especially pay for – adequate land is possibly the most critical subordinate research question in the context of urbanization and housing.

The framework has been successfully employed inter alia for: preparing the recent USD500- million loan to Indonesia with the World Bank; developing a diagnostic and programmatic report for Vietnam, also with the World Bank; framing the financial strategy of UN-Habitat's Participatory Slum Upgrading Programme in ACP states; training the EU-funded and UN- Habitat-executed housing reconstruction programme in Sri Lanka; reviewing the Bill and Melinda Gates Foundation's grants to member-based associations of informal labourers and residents of informal settlements; or, setting up a private housing finance company and a private land and infrastructure developer in India.

Diagnostic model/approach

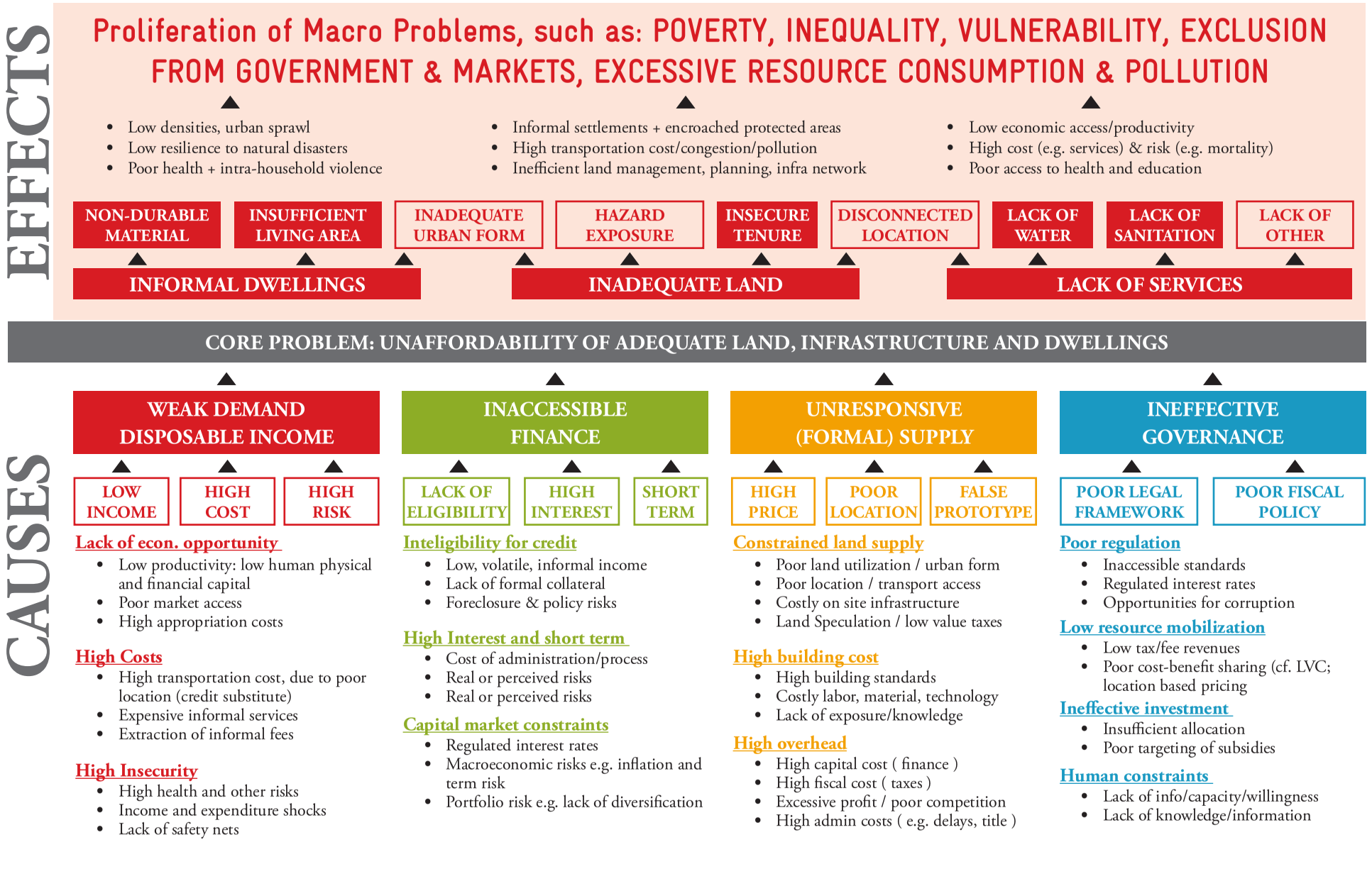
Figure 1 illustrates Rapid Urbanism's understanding of potential causes and effects of unaffordable land, infrastructure, and shelter as a problem tree:

The causes and root causes are structured around four sectors: demand, finance, supply and governance: (i) weak demand as low disposable income due to, for example, low earning, high cost, and high risk/vulnerability; (ii) inaccessible affordable finance due to, for example, lack of eligibility, prohibitively expensive interest rates and lack of long-term credit; (iii) unresponsive supply due to, for example, high price, poor location, unsuited housing prototypes; (iv) ineffective governance due to, for example, poor legal frameworks, fiscal or investment policy.

In regard to the effects, housing unaffordability exposes slum populations, unable to access adequate housing, to one or more of the five housing deprivations – nun-durable material, insufficient living area, inadequate access to water and/or sanitation, and lack of tenure security – and to other interrelated issues, such as disconnected sites that are developed with low-density sprawl, exposed to hazards, and lack other services (e.g. education and health amenities). In turn, this set of housing deprivations results in macro problems, including poverty, inequality, vulnerability, exclusion from government and markets, excessive resource consumption and pollution. This is a vicious cycle of housing and other forms of poverty where the effects aggravate the root causes.

[66] A set of peer-reviewed working papers on Rapid Urbanism has been developed with UN-Habitat and is pending publication, expected for late 2019 or early 2020. An introductory slide show provides an overview of the approach and is available online: https://app.box.com/s/ucjocsl936o0vmcl73xf74zaz4cwnv6x.

Figure 1: Rapid Urbanism's (model) problem tree for unaffordable land, infrastructure and housing

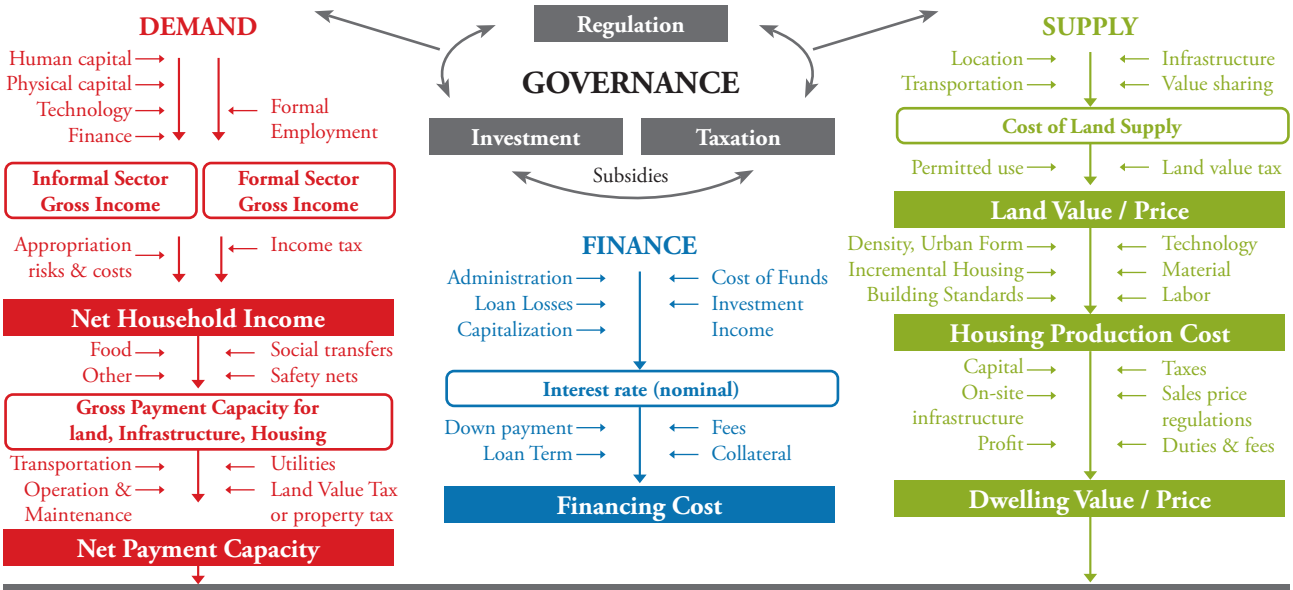


In response to the causes, preventive housing policies can be structured addressing any combination of the causes and root causes and thus reducing households' affordability gap. Last, in response to the effects, curative housing policies can address substandard land, infrastructure and housing as well as the macro-problems.

Framework Elements

Four sectors of a political economy model, informing affordability

Figure 19: Housing affordability as a match of demand, finance and supply, enabled through governance



INCOME GROUP*	INCOME DECILE	MONTHLY INCOME	PAYMENT CAPACITY	LOAN TERM	LOAN RATE	LOAN AMOUNT	DOWN-PAYMENT	AFFORDABLE PRICE	AFFORDABLE HOUSING OPTION
High income	D10	USD 1,200 40%	USD 480	15	10%	44,668 20%	USD 11,167	USD 55,834	Formal unit by developer
	D9	USD 600 30%	USD 180	15	10%	16,750 20%	USD 4,188	USD 20,938	
Upper middle income	D8	USD 450 27.5%	USD 124	8	15%	6,896 20%	USD 1724	USD 8,620	Incremental (fast) Co-habitation with family Formal rental
	D7	USD 350 25.0%	USD 88	8	15%	4,876 20%	USD 1219	USD 6,095	
Lower middle income	D6	USD 300 22.5%	USD 68	5	20%	2,548 20%	USD 637	USD 3,185	
	D5	USD 260 20%	USD 52	5	20%	1,963 20%	USD 491	USD 2,453	
Lower income	D4	USD 220 17.5%	USD 39	3	40%	800 20%	USD 200	USD 1,000	Incremental (slow) overcrowding Informal rental Public housing
	D3	USD 180 15%	USD 27	3	40%	561 20%	USD 140	USD 702	
Poor and vulnerable	D2	USD 140 12.5%	USD 18	1	100%	130 20%	USD 32	USD 162	
	D1	USD 100 10%	USD 10	1	100%	74 20%	USD 19	USD 93	
Factor (D10/D1)	**12x**	**4x**	**40x**	**15x**	**10x**	**600x**	**600x**	**600x**	—

In line with the diagnostic problem tree, Rapid Urbanism promotes a political economy model considering interventions for improving access to affordable housing across all four sectors: demand, finance, supply and governance.

The economic aspect of the model is captured in Figure 19, showing the relationship of the three primary sectors and how each one contributes to affordability equation: housing demand (e.g. capacity to pay for amortization of a lump sum) and housing finance (e.g. access to low- interest and long-term credit) determine the affordable cost (capacity to pay x financial terms

= affordable cost) and, thus, which housing options are accessible in a free market, given the price of different options of housing supply.

Then, within a political model, adequate governance needs to balance the three primary sectors through adequate regulation (e.g. development control and incentives such as density bonus for social developments), taxation (e.g. land value capture) or investment (e.g. supply-side in public infrastructure, demand-side subsidies in downpayments, long-term low-interest rate credit, or rental vouchers); governance is further discussed below.

In Figure 19, inequality compounds exponentially across the value chain, starting with income inequality with a factor of 12, and growing to housing inequality with a factor of 600: the table below indicates the market-based affordability level (i.e. before government involvement) in urban Indonesia in 2014 (based on stylized facts).

Housing affordability should consider aspects of demand (e.g. payment capacity), financing conditions and cost of production/supply. Note that the table differentiates roughly any two/four income deciles in line with markets and policies: e.g. in Indonesia, the top two deciles can access mortgage finance and purchase in the market without subsidies while SDG 10 targets the bottom 40 percent that faces the largest affordability gap. (Source: Nohn/Rapid Urbanism; * authors' categorization.)

Four scales for delivering adequate habitat and housing projects.

Rapid Urbanism differentiates four project scales (city, neighbourhood, cluster, and dwelling) that correspond to different steps in a value and delivery chain for urbanization and housing, thus allowing to structure respective responsibilities based on the principles of subsidiarity and comparative advantage. Furthermore, this approach allows addressing common project risks, such as (at the city scale) ensuring an appropriate relocation site that provides access to social and economic opportunities. Any higher-level framework (at the national or state level), such as any guiding policy or statutory legislation needs to consider these basic scales to frame and deliver successful interventions:

1. **At the city-scale (focus: right to the city)**, improve the supply of adequate land with proper connectivity to life-affirming opportunities (e.g. through developments at improved location). This is inter alia relevant in order to understand and mitigate the potentially adverse impact of transportation cost on housing affordability.
2. **At the settlement scale (public space)**, ensure access to adequate and affordable public space and land security for all (against evictions and hazards). This is inter alia important for promoting local socioeconomic opportunities and for differentiation infrastructure standards based on location to enable differential land pricing.
3. **At the cluster scale (collective space)**, design spatial support for self-help, e.g. by grouping dwelling units around collective land, infrastructure and buildings. This is inter alia important as an organizational unit for collective land management/tenure, differentiated (self-managed) basic services, mutual-help construction or collective finance (e.g. top-down joint liability group, or bottom-up self-help group within a community managed fund).
4. **At the household scale (private space)**, support a decent housing career, climbing up the ladder from a basic and safe 'starter home' to a more complete 'dream house'. This level is often the concern of out-put oriented programmes producing complete housing units, but in a 'habitat and housing' project may focus on just a basic starter environment

that can be self-improved by the beneficiaries; the latter approach then frees up administrative and capital resources than can be invested in developing 'adequate habitats', rather than just 'affordable housing'.

Figure 20: Four scales for planning, delivery and governance.
Source: Nohn, Rapid Urbanism. Image Credit: ITDP, Jessykoffi (on Wikipedia), Caminos and Goethert, Wakely, Sparc, Rapid Urbanism

Enabling incremental development: standards across two temporal scales

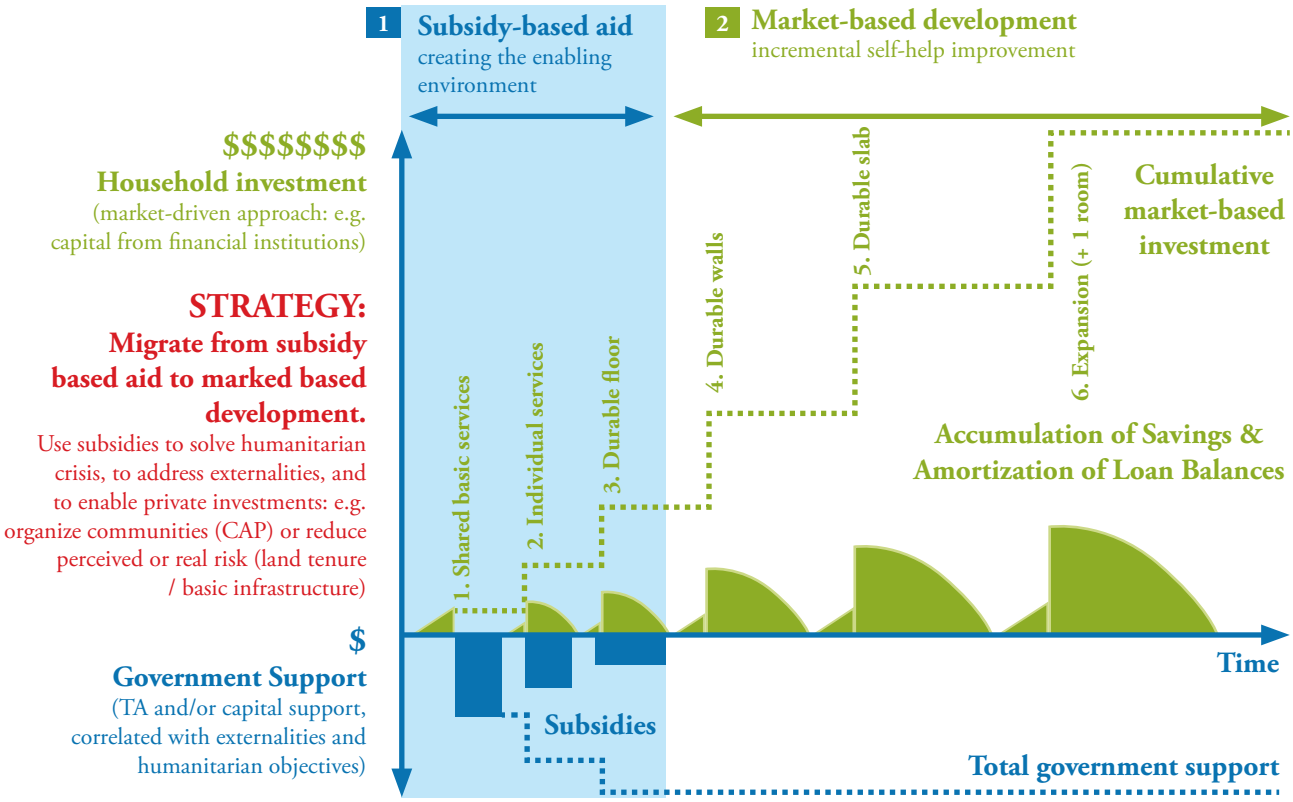
Rapid Urbanism considers the pros and cons of incremental development of land, infrastructure and housing, enabling access to adequate starter environments which then enable further market-based development according to the needs, preferences and resources of the users; the model strategizes. Figure 21 demonstrates how strategic public investments into the Parivartan Slum Networking Programme in Ahmedabad, Gujarat mobilized additional domestic resources (community co-payments and further market-based investments), transitioning from subsidy- driven interventions towards private investments and local economic development. Moreover, Rapid Urbanism differentiates two strategic phases:

1. **Phase I creates a subsidized starter habitat, including land security, basic infrastructure and basic shelter,** addressing three SDG 11.1 indicators (land, water, sanitation) and reducing/managing the risk of further investments as well as providing a ready-to-move, albeit basic and resilient, dwelling providing shelter against men- made threats as well as natural disasters.
2. **Phase II leverages the enabling starter environment** through access to affordable finance and technical assistance for community-driven marked-based incremental investments (addressing the last two SDG 11.1. indicators – improved dwelling material and size) and promoting inclusive local economic development.

This approach is not only common to the curative Gujarat-based Parivartan scheme but also a common feature of internationally-supported preventive interventions, such as World-Bank- funded sites and services. For example, the Indonesian Million Housing Programme considered a starter home to be of at least 12 sqm and be expandable to 36 sqm, eventually; the former being the affordable entry point to the formal housing market and the latter being the official minimum standard.

Figure 21: Reducing and managing market risks through strategic subsidies during an incremental approach

Source: Nohn, Rapid Urbanism.



Designing effective targeting systems: inclusive eligibility criteria and regressive subsidies

Lastly, the enabling starter habitat can be partially subsidized, with the following objectives:

1. Enabling access to adequate habitat and housing without exhausting the government resources and without crowding out the private sector – in other words, the subsidy allows households to access basic market-provided housing solutions, thus bridging the gap between potentially large-scale top-down housing schemes and likely small-scale community-driven housing schemes;
2. Redistribution for poverty reduction in line with SDG 10, focusing at the bottom 40 percent of the income period – in other words, redirecting government investments towards solutions especially for EWS but also LIG; and
3. Reducing/managing market risks, as discussed above – in other words, aiding economic development through reduced-risk business opportunities, employment generation and financial sector development.

To achieve these objectives, Rapid Urbanism employs proven instruments, particularly a range of subsidy options along with financial engineering commonly used downstream of World Bank-supported liquidity facilities with the objective of strengthening the demand side (e.g. downpayment subsidy, buy-down subsidy (supporting step-up amortization mortgages), interest-rate subsidies (or emulation thereof through a downpayment subsidy as in India's CLSS), vouchers for material or rental; or, rent-to-own or lease-to-own, indexing for and taking inflation out of the interest rate).

Finally, the following is a set of background materials as well as potential training material around demand, finance, supply and governance of 'adequate habitat and housing'.

- **Intro / overview**
  https://app.box.com/s/ucjocsl936o0vmcl73xf74zaz4cwnv6x
- **City-scale: 10 considerations for unlocking land supply at adequate locations**
  https://app.box.com/s/srs696pqkwbux0wsa8zdfeo3hychn1h7
- **Settlement/community-scale: balancing the cost of infrastructure and the revenues from serviced land with liveability and inclusion**
  https://app.box.com/s/fbosm65012r73mhuc3g40unzgaoavnb7
- **Cluster/self-help-group-scale: minimizing public infrastructure cost and nudging with collective services, tenure and livelihoods, etc.**
  https://app.box.com/s/w5brju2dfx004phliv6iuhz0gggqvhbw
- **Household/dwelling-scale: on incremental dwellings and starter prototypes**
  https://app.box.com/s/9n151mhs97ayy5loptpnk92tco3m5lbp
- **Finance of low-income housing demand**
  https://app.box.com/s/dpbijfunk35f06u33irciovbovi2vqhx
- **Subsidizing housing demand, fiscal implications and opportunity cost**
  https://app.box.com/s/1dh1g7h007w7ohm4678enep3bi2bilja
- **Thoughts on governance, including the alignment of land management (revenue) and urban planning regimes**
  https://app.box.com/s/ucjocsl936o0vmcl73xf74zaz4cwnv6x
- **Supply of habitat and housing (case studies)**
  https://app.box.com/s/we4mus2wq93nfbc5ov6zhvgzqex0vbdq
- **Finance of housing demand (case studies)**
  https://app.box.com/s/zsqrtdtc5dgcs5ls9yyhjsj783ybgl05

Annex 3: National Housing Policies in India since Independence

Post-Independence: The 1950s & 60s

The housing sector in the 1st Five-Year Plan (1951-56) was dominantly state-led due to a centralised approach to welfare (Hingorani, 2011, p. 3). It focused on accommodating post-Partition refugees 67 in urban centers such as Delhi and in new 'Model Towns' (Tiwari & Rao, 2016, p. 15). Post-Independence land reforms68 and the consequent low compensation for land led to an upsurge in the rural-urban migration, spurring a new wave of urbanisation (Rao, 2004). Construction of new houses was unprofitable due to high cost of labour and building materials in the post-World War II years (Tiwari & Rao, 2016, p. 15). This led to an increase in rents which the government tried to regulate through the Rent Control Act in 1961. This further curtailed the supply of rental housing and disincentivised private developers69 from creating new housing (Tiwari & Rao, 2016, p. 15). All these factors led to an increase in housing shortage and hence, growth of informal settlements in cities (Rao, 2004, p. 3).

The 2nd (1956-61) & 3rd (1961-66) Year Plans focused on housing for LIG, though the magnitude of the need was too large to provide adequate housing to all deemed eligible. So, the Annual Plans (1966-69) formally introduced the additional category of EWS to further focus policy attention (Hingorani, 2011, p. 3). A new approach emerged with the 3rd Plan, by shifting from slum clearance and resettlement towards incremental development, providing open developed plots and 'skeletal houses' for the residents to self-build their homes70 (Kundu & Kumar, 2018, p. 11). This can be seen as a precursor to the 'Site and Services Scheme' launched by World Bank during 1970s (Owens, Gulyani, & Rizvi, 2018, p. 262).

During this period, many relevant public institutions emerged, such as the Ministry of Works, Housing and Supply71, which recommended setting up of State Housing Boards in 1957 (Tiwari & Rao, 2016, p. 17). The Central Public Works Department (CPWD), National Building Organization (NBO) and Town and Country Planning Organization (TCPO) were also set up at this time.

However, policies from this time are seen as ineffective due to fragmentation in the provision of housing programmes, heavy reliance of states on the Centre and limited success of a centralised approach to housing (Hingorani, 2011, p. 5). The rate of housing delivery did not keep up with demand due to failures in implementation and lack of funds (Wadhwa, 2009, p. 16). Programmes often failed target groups with cases of misappropriation of LIG houses by HIG due to their location away from the city centre adding transport costs and making them unaffordable to low-income households (Tiwari & Rao, 2016, p. 18). The difficulty in procurement of land and lack of public participation became the biggest challenges to housing programmes of this time. Consequently, the need unmet by formal markets and government programmes led to the urban poor looking for introduced in this period was modelled on western examples and resulted in net destruction of housing stock due to evictions (2011, p. 4).

At the same time, the main achievements of this period were the development of cooperative societies at the state level to develop housing and the establishment of the NBO to undertake research on cheaper building materials (Tiwari & Rao, 2016, p. 24). The Urban Community Development Programme of 1966 is considered one of the important centrally sponsored slum improvement programmes but was discontinued due to lack of funds and availability of land (Kundu & Kumar, 2018, p. 11).

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[67] Directed by the Ministry for Rehabilitation

[68] Laws such as the Orissa Estates Abolition Act of 1951 and UP Zamindari and Land Reforms Act of 1951 were enacted in various states of the country

[69] Due to acquisition of private housing by the government for housing government officials at regulated prices

[70] Under this scheme, developed plots of size 32 sq.mts. with only the basic shell were made available (with on- site infrastructure like water supply, electricity, drainage, sewerage etc.) on hire purchase basis

[71] Later known as MoHUPA and today as MoHUA

Text Box 10: Brief Timeline of Housing Schemes & Programmes – Post Independence: The 1950s & 60s

- 1952 Subsidised Housing for Industrial Workers and Economically Weaker Sections
  50% of cost of land & construction provided as subsidy from Centre to State & 50% as loan
- 1954 Low Income Housing Scheme
  Loans up to 80% of dwelling unit provided
- 1956 Slum Clearance and Improvement Scheme
  Aimed at clearing slums and rehabilitating families in government-built housing at nominal rents
- 1956 Subsidised Housing Scheme for Plantation Workers
  Houses of government prescribed standards built
- 1959 Rental Housing for State Government Employees
  Loans to State governments to provide rentals for employees
- 1959 Middle Income Group MIG Housing Scheme
  Life Insurance Corporation
- 1959 Village Housing Projects Scheme
- 1959 Land Acquisition and Development Scheme
  10-year loans to State governments to develop land for housing
- 1961 Rent Control Act
  Ended up disincentivising private sector to invest in rental housing
- 1966 Urban Community Development Programme

Pre-Liberalisation: The 1970s & 80s

The 5th Year Plan focused on 'backward' sections of society (HSMI-HUDCO Chair-NIUA, 2017, p. 71) with an increase in budgetary support for slum improvement schemes within the realm of urban renewal (Kundu & Kumar, 2018, p. 11). In-situ upgradation began to be seen as a better alternative due to the observed failure of conventional public housing schemes in improving the affordability level of the poor (Hingorani, 2011, p. 6). The 'Sites and Services' scheme was formally introduced in 1980 with 'Self-help Housing' projects built to provide tenure rights to the urban poor (Kundu & Kumar, 2018, p. 12).

This phase saw strong government intervention in market operations and the overuse of their regulatory powers is also seen as one of the reasons for the Emergency in 1975-77 (Tiwari & Rao, 2016, p. 18). This furthered the pro-liberalisation push for a larger role of the private sector, thus, marking a gradual shift from subsidies to cost recovery and cross-subsidisation as a precondition for scalability (Wakely & Riley, 2011). The foundations of housing finance were laid with the setting up of Housing Development Finance Company (HDFC) and National Housing Bank (NHB). Housing finance enabled credit expansion primarily for high and middle-income groups through fiscal and monetary policy to encourage ownership based and rental accommodation by the private sector. This gave a major boost to lending and construction activities targeted at those groups. HUDCO was set up in 1970 and provided supply-side finance to the new state capitals of Chandigarh, Bhubaneshwar, Gandhinagar, and Bhopal (HSMI-HUDCO Chair-NIUA, 2017).

Radical reforms in land policies and public housing took place in this period with the creation of the Environmental Improvement of Urban Slums (EIUS) and Urban Land Ceiling and Regulation Act (ULCRA) to provide access to basic services and create land for slum relocation, respectively. ULCRA gave the state right to acquire surplus land at below market rates but very little land was acquired and even less allotted for housing. Land prices went up after the act was brought into force due to the land taken out of the market and the consequent perception of land scarcity (Wadhwa, 2009, p. 12). The perception of slums began to change during this period in the avant-garde discourse to that of self-managed housing solutions (Hingorani, 2011, p. 6). On ground, however, this period saw mass slum clearances such as in Delhi (Tarlo, 2003).

The 6th (1980-85) and 7th (1985-90) Plans recommended greater role of NGOs in community development to empower communities as an agent in the (self) provision of housing. Though hardly implemented, this approach was driven by international discourse at the time which placed greater emphasis on community involvement (Hingorani, 2011, p. 6).

International events such as Habitat I United Nations (UN) Conference held in 1976 and the 1986 International Year of Shelter were other major global factors that influenced the national approach to housing. Within the context of the Washington Consensus[72] and structural readjustment programmes[73], the first National Housing Policy was framed in 1988 as an integrated policy on the development of the housing sector. The Policy articulated, for the first time, the need for change in the government's role from a provider to a facilitator or enabler of private sector investment in housing (Hingorani, 2011, p. 7). Its draft version in 1987 recognised shelter as a basic human need and right for the first time. However, this recognition was eventually removed in the final version in 1988 (NHB, 2018).

Text Box 11: Brief Timeline of Housing Schemes & Programmes - The 1970s & 80s

- 1970 Housing and Urban Development Corporation (HUDCO) set up
  To assist and promote housing and urban development programs with government agencies
- 1977 Housing Development Finance Company (HDFC) set up
  For retail lending based on market principles, targeting middle- and high-income households
- 1972 Environmental Improvement of Urban Slums
  To provide basic amenities to slums
- 1976 Urban Land Ceiling and Regulation Act (ULCRA)
  Formulate to force 'surplus' urban land into the market
- 1979-80 Integrated Development of Small and Medium Town (IDSMT)
  To decentralise urban concentration by developing infrastructure in small and medium towns
- 1980 Site and Services Schemes
  Provision of land with infrastructure to allow the urban poor to self-build their houses
- 1981 Scheme of Urban Low-Cost Sanitation for Liberation of Scavengers
  To end manual scavenging
- 1985 Indira Awas Yojana
  Rural housing programme
- 1986 Urban Basic Services Scheme (UBS)
  Basic social services and physical infrastructures in urban slums especially for women & children
- Minimum Needs Programme
  Million landless laborers given housing sites
- 1987: Draft National Housing Policy (DNHP)
- 1987 National Housing Bank (NHB)
  Set up as the apex financial institution under the Reserve Bank of India (RBI)
- 1988: National Housing Policy (NHP)
  The first housing policy of India
- 1989 Nehru Rozgar Yojna – Shelter upgradation. Scheme for Housing and Shelter Upgradation (SHASHU) introduced as part and discontinued in 1997
- 1989 Integrated Low-Cost Sanitation for Liberation of Scavengers (ILCS)
  To end manual scavenging
- 1990 UBS merged with Environmental Improvement of Urban Slums (EIUS) = Urban Basic Services to the Poor (UBSP)
- 1990 Building Materials and Technology Promotion Council (BMTPC) replaces NBO Set up to research and develop innovative, low-cost building materials

[72] A set of 10 economic policy prescriptions considered to constitute the "standard" reform package promoted for crisis-wracked developing countries by Washington, D.C.-based institutions such as the International Monetary Fund (IMF), World Bank (WB) and United States Department of the Treasury

[73] Structural adjustment programs (SAPs) consist of loans provided by the IMF and the WB to countries that experienced economic crises

Post-Liberalisation: 1990-2000s

The importance of urban centres in economic growth was recognised in this period and several economic reforms introduced. The 8th & 9th Five Year Plans reiterated the role of the private sector in housing. The Habitat II UN Conference held in 1996 put forward the theme 'Adequate Shelter for All'. In this context, the National Housing and Habitat Policy, drafted in 1994, was revised in 1998 with the clause of 'habitat' added to focus on need for adequate services and social infrastructure. The role of the private sector was enhanced, and the financial responsibility of households increased in the policy.

25 new HFIs were created in this period and the HIG & MIG households benefitted from the deepening of the housing finance market (Hingorani, 2011, p. 10). At the same time, subsidised EWS-LIG housing tended to be captured by the HIG & MIG households who, however, also suffered from a housing shortage. This upward pull was at least partially reinforced by a push from below, excluding EWS and LIG households, unable to afford required co-payments. Thus, subsidised programmes largely diverted to meet the demand by MIG and HIG households. (Wadhwa, 2009, p. 16). Accordingly, the impact of the housing policies and programmes seemed very limited, especially for the urban poor, and housing shortage continued to increase. During the 10th Plan, a Technical Group (2007) estimated the national urban housing shortage as 24.7 million dwelling units, of which approximately 98 percent pertained to EWS-LIG. The percentage of urban population living in slums had increased from 17 percent in 1981 to 27.8 percent in 2001 as per the 2001 Census, with the population living in slums as high as 61 million in 2001.

Under the 11th Five Year Plan, private-public models were promoted to provide housing. The 74th Constitutional Amendment[74] was a significant step in this period for devolving powers to Urban Local Bodies (ULB). Jawaharlal Nehru National Urban Renewal Mission (JnNURM) was launched in 2005, as a large, integrated urban program for the first time to make Indian cities 'world class' (Hingorani, 2011, p. 11). The programme focused on supporting infrastructure for economic growth and provision of basic services and secure tenure to urban poor. As a significant urban land market reform, the ULCRA was repealed as part of JnNURM, followed by several state governments equally repealing the state-level laws (HSMI-HUDCO Chair-NIUA, 2017, p. 72). JnNURM included a Sub Mission for Urban Infrastructure and Governance (UIG) by Ministry of Urban Development which aimed to provide seven entitlements/ services i.e. security of tenure, affordable housing, water, sanitation, health, education and social security in low income segments in 63 Mission Cities. It also included a Sub Mission for Basic Service to the Urban Poor (BSUP) by Ministry of Housing and Poverty Alleviation to provide the above mentioned seven entitlements and services in towns/cities other than the Mission Cities (NHB, 2018, p. 126).

JNNURM received mixed reviews wherein its main critique has centred on its fragmented, project-based and 'one size fits all' approach (Mahadevia, 2006). Kundu and Kumar (2018) contend that its component of in-situ upgradation was too small while the HUDCO report (2017, p. 81) traced a 'big city bias' in the mission. Tiwari and Rao (2016) point out that microfinancing options were ignored (2016, p. 25) in the mission and Mahadevia (2011, 2006) argues that the scheme allowed for land capture and slum demolitions through its city branding large-scale projects. Khan (2014) writes that small towns could have benefitted greatly from JNNURM as a larger share of urban population resides in the small towns under UIDSSMT and IHSDP as compared to the large cities under UIG and BSUP.

The National Urban Housing and Habitat Policy (NUHHP) drafted in 2007 emphasises the urban context. It views housing as a tool of productivity, equity, safe environment, pro-poor delivery of civic services and shelter as well as employment opportunities and has emphasised bottom-up planning. It also seeks to promote various types of public-private partnerships

[74] The amendment made in 1992 devolved the responsibility for functions such as urban poverty alleviation, slum upgrading, housing, management of urban services and protection of weaker sections to ULBs

for realising the goal of "Affordable Housing for All" with special emphasis on the urban poor (NHB, 2018, p. 127). The government is seen as organiser of legal, regulatory and financial framework within which housing could be developed by private sector (Sahu, Zachariah, & Baksi, 2009).

The 12th year Plan informed Rajiv Awas Yojana (RAY), a major programme for urban poor and slum dwellers which was launched in 2011 with a preparatory stage from 2009-11 and was effective till 2013. The programme aimed to bring slums into the formal system with access to basic amenities and to develop institutional and market mechanisms to tackle shortages in land and housing (Tiwari & Rao, 2016, p. 23). It has been commended as the first policy formulation of right to shelter with its focus on incremental construction and in-situ upgradation (Bhan, Anand, & Harish, 2014). Affordable Housing in Partnership (AHiP) was initially introduced in the Indian housing policy landscape as the BSUP part of JnNURM in 2009 and then dovetailed into RAY in 2011 (Kundu & Kumar, 2018, p. 15), going on to become one of the verticals of PMAY in 2015. Similarly, the Integrated Subsidy Scheme for Housing the Urban Poor (ISHUP) launched in 2009 as part of JnNURM is seen as the genesis of the Credit-Linked Subsidy Scheme (CLSS) vertical of PMAY.

It is worth noting a gradual shift from informal to formal housing, through schemes such as the Integrated Housing and Slum Development Programme (IHSDP) and Basic Services for Urban Poor (BSUP), that incorporated earlier schemes, such as Valmiki Ambedkar Awas Yojana (VAMBAY) launched in 2001 and National Slum Development Program (NSDP) launched in 199675 (Kundu & Kumar, 2018). Similarly, RAY also relied on greater role of public agencies and favoured the adoption of modern technology for multi-storey housing over incremental housing.

Text Box 12: Brief Timeline of Housing Schemes & Programmes – Post Liberalisation: 1990-2000s

- 1990 Nehru Rozgar Yojana's (NRY) Scheme of Housing and Shelter Upgradation (SHASU)
  Under NRY. Discontinued in 1997
- 1990 Night Shelter Scheme for Pavement Dwellers
  Provided loan and subsidy funding for night shelters, sanitation facilities for pavement dwellers
- 1990-91 Urban Basic Services for the Poor (UBSP)
  Clubbed UBS with EIUS
- 1992: 74th Amendment
  Responsibility for implementing housing programs on ULBs
- 1994 National Housing and Habitat Policy
  Second national housing policy
- 1996 National Slum Development Program (NSDP)
  Upgradation of slums by provision of physical amenities
- 1998 Revised National Housing and Habitat Policy to provide access to serviced urban land, housing finance and innovative technologies for affordable housing.
- 1998 2 Million Housing Program
  Loan based scheme for building 2 million houses each year with funding from HUDCO, HFIs
- 2001 Valmiki Ambedkar Aawas Yojana (VAMBAY) + Nirmal Bharat Abhiyan
  Construction & upgrading scheme for BPL HHs + health services & access to community toilets
- 2005 Jawaharlal Nehru National Urban Renewal Mission
  To support infrastructure for economic growth and provide basic services and secure tenure
- Basic Services for the Urban Poor (BSUP)
  Part of JnNURM: Integrated provision of basic services including shelter and tenure to slum dwellers
- 2009 Integrated Subsidy Scheme for Housing the Urban Poor (ISHUP)
  Part of JnNURM: To improve the affordability of housing loans among the EWS/LIG

[75] Subsumed under JnNURM in 2006

- 2007 National Urban Housing and Habitat Policy (NUHHP)76
  Third national housing policy
- 2009-13 Rajiv Awas Yojana (RAY)
  Reform linked slum redevelopment and affordable housing programme with central assistance
- 2009 'Affordable Housing in Partnership'
  Launched as part of RAY to increase affordable housing stock as preventive strategy

Contemporary India: The current decade

As per the Technical Group on Urban Housing Shortage TG-12, there is a shortage of 18.78 million, with 95% faced by LIG and EWS households77 (MoHUPA, 2012). In this context, RAY was replaced by a new programme: Housing for All – PMAY.

Text Box 13: Brief Timeline of Housing Schemes & Programmes - The current decade

- 2013 Rajiv Rin Yojana (RRY) and Affordable Housing in Partnership (AHP)
  Central Sector Scheme linked to the RAY for interest subvention for poor households
- 2013 Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act LARR (also Land Acquisition Act, 2013)
  Replaced the colonial era Land Acquistion Act 1894
- 2015 Atal Mission for Rejuvenation and Urban Transformation (AMRUT)
  From JNNURM. To establish infrastructure for urban transformation through urban revival projects
- 2015 Pradhan Mantri Awas Yojana (PMAY): Housing for All by 2022
  An affordable housing scheme by MoHUA
- 2016 Real Estate (Regulation and Development) Act
  Established Real Estate Regulatory Authority (RERA)
- 2019 Draft Model Tenancy Act
  Aiming to bridge the trust deficit between tenants and landlords.

Its objective is to build 50 million houses for the poor by 2022, out of which 20 million are to be built in urban areas. The Mission is being implemented from 2015 to 2022, with central government providing assistance to Urban Local Bodies (ULBs) and other implementing agencies through States/UTs. The 4 verticals of PMAY are (MoHUPA, 2016):

i. Beneficiary-Led Construction (BLC), subsidising adequate construction materials for a new house or home improvement – while households are assumed to contribute their labour (or hire labourers);
ii. In-situ slum redevelopment (ISSR), providing basic services (and land tenure security) in informal communities;78
iii. Affordable Housing in Partnership (AHiP), building PPPs for housing production; and
iv. Credit-Linked Subsidy Scheme (CLSS), providing a downpayment subsidy to households eligible for credit (equivalent to the NPV of government contributions required for an interest rate subsidy).

In a clear departure from sites and services schemes of the past and self-housing, PMAY can be seen as a move towards 'formalisation' of housing strategy through central heavy funding and large subsidies (Kundu & Kumar, 2018, p. 16). Kundu and Kumar also contend that, except for ISSR, all other verticals have brought housing construction completely in the private domain. Bhan (2018) points out PMAY's departure from RAY wherein the possibility of incremental construction and upgradation has been removed, with a new focus on building complete houses. Furthermore, the mandatory

[76] Revision of the Policy is underway
[77] Households with monthly incomes up to Rs.5000 were EWS and between Rs.5000-10000 were LIG in 2012

requirement of adequate documentation has been another deterrent in enabling people to avail the scheme. The stringent eligibility criteria and process of verification lead to the poor being excluded from the list of beneficiaries or falling in trap of unscrupulous agents, resulting in benefits going to non-targeted people (Kundu & Kumar, 2018).

As per the PMAY Urban Website79, the most recent numbers are as follows: the total urban housing demand is estimated to be 12 million units. Out of this 8.5 million have been sanctioned under PMAY (U), 4.6 million that is 54 percent are grounded, 2.3 million that is 27 percent have been completed, and 1.95 million are occupied. Further, as per the official figures, out of a total investment of INR 5.05 lakh crores, central government has contributed INR 51.162 crores (implying a leverage of nearly 10).80 Across verticals, the houses sanctioned under BLC, AHP, ISSR and CLSS were 56, 31, 4 and 8 percent respectively, with 2 percent planned under RAY. The average cost of a house sanctioned under PMAY comes out to be around INR 5.4 lakh, that is INR 3.6, 7.4, 6.24 and 10.7 lakh for BLC, AHP, ISSR and CLSS respectively.

While ISSR was supposed to meet about 90% of housing shortages, its progress has been extremely low, inter alia due to legislative and administrative difficulties in providing land title to slum dwellers (Kundu & Kumar, 2018). BLC, however, has made significant progress because the public institutions have found it easier to provide housing assistance to those households who already have access to land. 62 percent of new housing being financed in the country is self-constructed, standalone houses typically located on the outskirts of large cities and tier 2 and 3 towns (Das, Karamchandani, & Thuard, 2018). The success has been modest in CLSS due to the lack of affordability among the poor to repay even heavily subsidised loans and the location of their homes81. When it has reached borrowers, it has had little impact on affordability because customers only know whether they are getting the CLSS after receiving a loan, and hence cannot factor it into their home purchase decision (Das, Karamchandani, & Thuard, 2018).

Conclusion

Trends over time can be summarized in a housing policy map (Figure 22), adapted from Goethert, 2005, that could be used as a guiding framework for any successive publication of this annexure. The Housing Policy map shows the 3 national housing policies mapped along with the respective Five-Year Plans and international events that influenced their formulation. Landmark housing schemes and programmes have also been mapped with the decades. The various preventive and curative approaches over the decades show the shift in the government's role as a builder of public housing to a facilitator through sites and services schemes to a greater emphasis on good urban management through enabling through policies. Overall, the size of the informal sector, as measured by the MDG and SDG measure of the UN, has been steady in urban centres: in other words, the number of households that could grow out of housing poverty was replaced the formation of new substandard housing units, often within informal settlements.

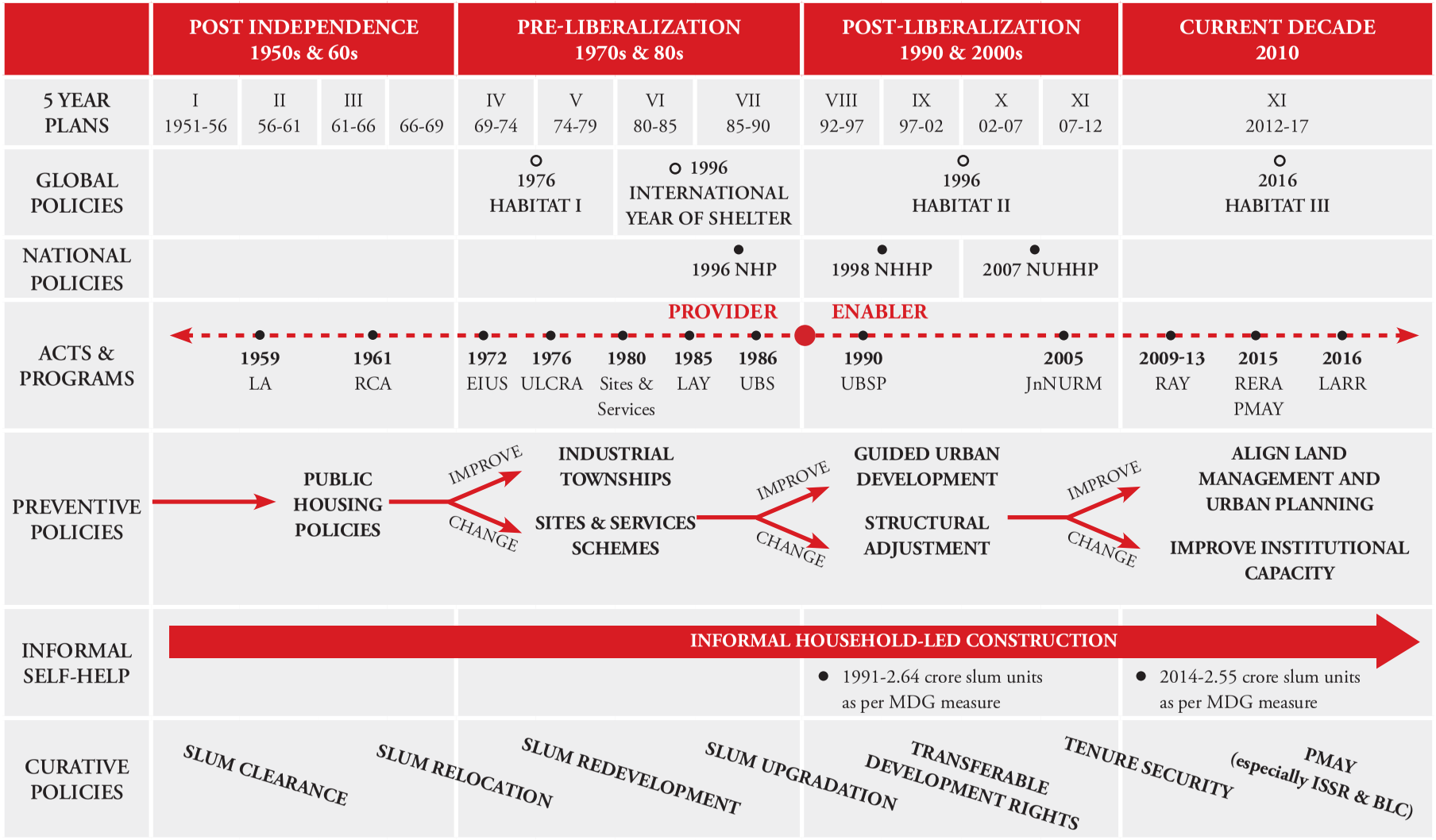
[78] Note that the first two verticals are interlinked in the sense that home improvements under BLC should only be performed in areas that have access to basic services that, if not available, would be provided through ISSR. Conversely, slums that require upgrading may contain large number of houses that require improvement.

[79] https://pmay-urban.gov.in. Accessed on August 27, 2019

[80] It was however unclear what is exactly included in the total of INR 5.05 lakh crores.

Figure 22: The housing policy map

Adaptation from Goethert, 2005 (CC BY-NC-SA 4.0).



[81] The bulk of low-income housing is being constructed on the peripheries of the approximately 4,500 urban areas notified for CLS, which typically come under the purview of Gram Panchayats. Houses in these localities are not eligible for CLS until state governments "notify" these areas as per PMAY guidelines. However, since last two years, there is a notification to include rural areas around metro as part of of PMAY U). As per CLSS for EWS/LIG Guidelines as amended in 2017, Section 2.1 states and UTs have the flexibility to include planning area around a municipal area under the mission.

Annex 4: CGAP Principles for Setting Sustainable Interest Rates

Source: Extract from Nohn, M. (2017). Rapid Urbanism: How to Expand the Access to Affordable and Adequate Housing. Technical Working Paper 3. Nairobi: UN Habitat, Urban Economy and Finance Branch.

Interest rates vary drastically across housing finance products – conventional mortgages, emerging housing microfinance, and by-now-established microfinance. The interest rates of long-term, collateralized mortgages for large lump sums are typically significantly lower than short-term uncollateralized microcredit for small amounts. The reason is that loan terms ought to reflect not only the net cost of funds, but also the administrative expenses (i.e. delivery costs) and the risk of loan losses. While the net cost of funds tends to be similar for the different products, microfinance that is process-intensive (especially if promoting convenience and discipline through high frequency and local service) is typically much more expensive. Furthermore, it is also considered riskier, inter alia because loans are unsecured or at least less- well secured than a mortgage that is collateralized through the lien for a tangible real estate. The differences become evident when looking at the numbers.

CGAP recommends the following formula for pricing microloans, with the ultimate objective of setting sustainable interest rates: R = (AE+LL+K+NCF) / (1-LL). (Rosenberg, 2002) All variables are expressed as a ratio of costs relative to the outstanding loan balance: R = Interest Rate; AE = Administrative Expenses; LL = Loan Losses; K = Capitalization; NCF = Net Cost of Funds adjusted for any Investment Income earned from investing a share of funds (e.g. cash invested in over-night lending; reserve capital deposited with a central bank). Note that dividing the sum of costs in the numerator by the denominator (1-LL) accounts for the interest foregone due to loan losses. What does this approach explain about different interest rates for microcredit and mortgage lending – and how would emerging housing microfinance products square in-between the two established products? The following examples illustrate the different cost structures and therefore the different sustainable interest rates that are required across the three products; also see Table 14:

The microcredit interest rate must be approximately 64 percent to cover all costs incurred for delivering the loan, given the assumptions made:

1. For example, the administrative expenses for daily doorstep collections are estimated at 25.00 percent of the average outstanding loan balance. For example, to make daily doorstep collections for 50 households may cost USD 5.50 for labour and related expenditures (e.g. transport), or USD 5.50/day*300days=USD 1,650 per year. In addition, the overhead costs for the branch and main office may add another USD 100 to this cost, totalling USD 1,750 per year. Now, if the average loan made to the 50 households is of USD 200 then the total loan amount would be USD 10,000 but, when repaid over one year, the average outstanding loan balance would be less: for example, only USD 7,000. Finally, setting the cumulative costs of USD 1,750 in relationship to the average outstanding loan portfolio of USD 7,000 yields an Administrative Expenses (AE) ratio of 25.00%. (Note that "Administrative Expenses of efficient, mature institutions tend to range between 10 and 25 percent of average loan portfolio," as per Rosenberg, 2002.)
2. Similarly, loan losses are estimated to be USD 140 or 2.00 percent per year.
3. To grow its loan portfolio, the lender needs to increase its own equity: for example, to grow with an annual rate of 25 percent, a portfolio that is leveraged with a factor of 1.6 would need to earn a capitalization rate (K) of 25%/1.6 = 16%.
4. Further, the blended cost of funds for its liabilities (deposits, loans, equity) may be of 21% while the investment income may be of 1.5% so that the Net Cost of Funds is 19.5 percent.
5. Lastly, given the loan losses, all costs need to be adjusted for future interest that is foregone.

In contrast the financially sustainable interest rate for the conventional mortgage would be significantly lower; for example, only 10.78 percent:

1. Firstly, the mortgage relies on a branch model without doorstep collections: either the monthly payments are deducted directly from the salary slip or the mortgagee makes a monthly transfer/deposit. The cost for this system is much lower: payments cost only USD 60 per year. If adding a similar overhead of USD 100, this adds to total costs of USD 160 per year. On the other hand, with an amount of USD 20,000 the average mortgage is much larger than the average microloan. Repaid over 15 years, the average outstanding mortgage amount may be approximately USD 16,000. Setting costs and average loan balance in relation to each other, yields an Administrative Expense ratio of 1.00%, only.
2. Loan losses for the collateralized mortgages are estimated at 0.25 percent only.
3. Given the low risk, the leverage of the mortgage portfolio may hover around 2.5. To grow the portfolio at a more moderate rate of 10% would require a capitalization ratio (K) of 10%/2.5 = 4 percent.
4. Further, the blended cost of funds for a mortgage lender would be significantly lower, due to lower risk investment in a traditional and secured market, possibly with the option to resell a share of the mortgage portfolio, and due to the higher debt-equity ratio (debt is typically more affordable than equity). Here the estimate is 6.50 percent.

Lastly, emerging housing microfinance falls somewhere in-between the two previous examples:

1. Administrative expenses for weekly (instead of daily) doorstep collections would cost approximately USD 5.50/ week*52weeks=USD 286 per year. Adding the same overhead of USD 100 sums up to USD 386 per year. This compares to a total loan amount of USD 15,000 with an average outstanding balance of USD 10,000 outstanding on average. The resulting Administrative Expense (AE) is USD 386/USD 10,000= ~4.00%.
2. Loan Losses (LL) are expected to equal approximately 1 percent of the average outstanding portfolio.
3. The capitalization rate (K) is set to be 8 percent.
4. The Net Cost of Fund (NCF) is estimated to be 10.50 percent, between that of microcredit and the mortgage.

Table 14: Comparison of sustainable interest rates for conventional mortgages, traditional microfinance and emerging housing microfinance, given different cost structures. (Source: the author, based on Rosenberg, 2002)

Enterprise Microfinance	Emerging custom financial products to support progressive building		Traditional Mortgage
(AE	(25.00%	(4.00%	(1.00%
+ LL	+ 2.00%	+ 1.00%	+ 0.25%
+ K	+ 16.00%	+ 8.00%	+ 4.00%
+ NCF)	+ 19.50%)	+ 10.50%)	+ 6.50%)
/ (1-LL)	/ (100.00%-2.00%)	/ (100%-1.00%)	/ (100%-0.25%)
= R	= 62.50% / 98.00% = 63.78%	= 23.50% / 99.00% = 23.74%	= 11.75% / 99.75% = 11.79%
Chosen R	**= 64.00% p.a.**	**= 24.00% p.a.**	**= 12.00% p.a.**

Annex 5: Pro-poor housing microfinance product terms

Source: Nohn, M., Schmidt, D., & Smith, D. (2009). SEWA Housing Finance Business Plan. Ahmedabad, Gujarat and Boston, MA: Mahila Housing SEWA Trust and Affordable Housing Institute.

Learning from Rutherford's principles for designing pro-poor products, the business plan for a housing finance company for and by poor women in India proposes the following loan terms, serving four objectives: (a) by enabling irregular payments, they accommodate the volatile cash flows of informally employed clients, shielding against income and expenditure shocks (e.g. health emergency) and the exposure to often increased risks (e.g. lack of access to safe water and sanitation) despite the lack of safety nets (e.g. social security), for which it is hard for the poor to save or pay in equal instalments; (b) incentives for faster repayment – in exchange for more flexibility – maximize resource mobilization for housing, by reinforcing the thrift incentive because clients do not face the risk of repaying a too high amount that, in case of emergency, that they would not be allowed to take out back; (c) they shield clients from the need to resort to exploitative moneylenders during emergencies, thus not only protecting clients but also the lender from client defaults; (d) any prepaid amount de-facto doubles as savings while any client legally remains a net borrower always, which may constitute an elegant means for offering savings-like services without being subject to strict regulations applying to truly deposit-taking institutions:

1. Borrower may always prepay in whole or in part, at any time, without penalty.
2. Further, prepaid borrowers are rewarded through an early payment incentive. To incentivize thrift and to reduce lending risks, the lender gives good borrowers an interest rate reduction of % if they maintain their accounts weeks/months or more prepaid. This interest rate reduction accrues to the entire amount outstanding, instead of only to the prepaid amount.
3. In addition, prepaid borrowers may skip payments so long as the outstanding principal balance is below or equal the originally agreed schedule.
4. Lastly, prepaid borrowers may withdraw any prepaid amount to fund a new expenditure (e.g. health emergency), once again so long as the outstanding principal balance is below the originally agreed amortization schedule. (A flex fee equal to 5% of the additional advance applies each time a withdrawal is made to cover additional cost to the lender.)

Note that such terms, implying savings-like services, require the trust of borrowers who are likely to carefully test the flexibility. Furthermore, flexibility requires advanced liquidity management by the lender who needs to account for the option that advanced payments and withdrawals are likely to follow economic cycles or influenced by other events: for example, in case of a natural disaster there may be a run on the prepaid amounts. While this may sound like a problem it rather constitutes an opportunity: it can easily be addressed by either including a respective clause in the product terms, limiting the option to withdraw prepaid amounts to the liquidity of the lender, or through collaboration with a larger capital provider, for example a development bank willing to provide liquidity in case of an emergency, which would deliver emergency support rapidly and help increasing resilience significantly.

Annex 6: The Parivartan Slum Networking Programme, Ahmedabad

Source: PSUP Financial Strategy, UN-Habitat 2018 (grey literature). Based on the following secondary sources: Mahila Housing SEWA Trust; Nohn, Goethert, & Holz, 2016; Nohn & Bhatt, 2007; Rusling, 2010.

"The Parivartan Slum Networking Programme established a model that worked at scale and benefitted more than 14,000 households", explains Bijal Brahm Bhatt, Coordinator of Mahila Housing SEWA Trust (MHT), an Ahmedabad-based NGO that forms part of the Self- Employed Women's Association (SEWA), a labour union of 3 million informally employed women. The model approach has been replicated in other cities in various Indian states and has been internationally recognized.

Phase I. Providing access to basic infrastructure and tenure security at the community scale, by allocating subsidies strategically to create an enabling environment for self-help at the household scale. To improve the infrastructure in underserviced low-income settlements, Ahmedabad Municipal Corporation (AMC) cooperates closely with NGOs (mainly MHT).

- Investment Cycle 1 (typical USD 30): basic services and tenure security.

The NGO mobilizes the households and collects savings for a household contribution to infrastructure cost (USD 300). As households tend to be very poor, AMC pays 90 percent of the cost of community facilities to overcome negative externality (e.g., public health threats) and to enable markets (see below). Once households have completed their nominal co-payment, the city supports the construction, provides the subsidy and a no-eviction guarantee for 10 years. (Figure 23, Figure 24)

Figure 23: Settlement before and after Parivartan.
Credit: Mahila Housing SEWA Trust

Figure 24: Stages of infrastructure construction in a street of a Parivartan settlement
Credit: Mahila Housing SEWA Trust

After the initial intervention, MHT has observed that the increase in tenure security and the provision of basic infrastructure triggers households' demand for finance in order to further improve their homes. To respond to this demand, MHT has developed a larger support ecosystem: all households who have successfully made their contribution (USD 30) in investment cycle 1 are eligible for incremental microloan cycles. As far as public interests are at stake (e.g. health co-benefits, urban poverty reduction), further investments at the household scale may still be subsidized, however not as heavily as the initial cycle at the community scale where governments intervenes more heavily in order to address collective action problems.

- Cycle 2 (typical loan of USD 75): individual toilet block construction (USD 150, still 50%-subsidized through a complementary public scheme)
- Cycle 3 (typical loan of USD 150): small home improvement (e.g. floor tiling, possibly still partially subsidized)

Finally, it should be noted that MHT uses a participatory and a labour-intensive approach to the in-situ slum upgrading and further incremental improvement. The community is mobilized and organized around community savings for the 10%-downpayment of infrastructure costs. The savings and the meetings that take place around the ritual empower the community who starts to believe that change is possible and engages around development projects. (Figure 25) Further, MHT has found the Karmika School for Women Construction Workers in order to train its low-income women members in construction trades. The women then execute the work, and many women continue working as construction labourers. (In India many construction workers are women who often carry out the most demanding tasks, given that they tend to lack formal training and education. Karmika responds to this training need.) (Figure 26)

Figure 25: Slum dwellers mobilize and organize around community savings and participatory action planning.
Credit: Mahila Housing SEWA Trust

Figure 26: Two women trained in Karmika construct an individual toilet block (cycle 2).
Credit: Mahila Housing SEWA Trust

Phase II. Leveraging the enabling environment for market-based self-help.

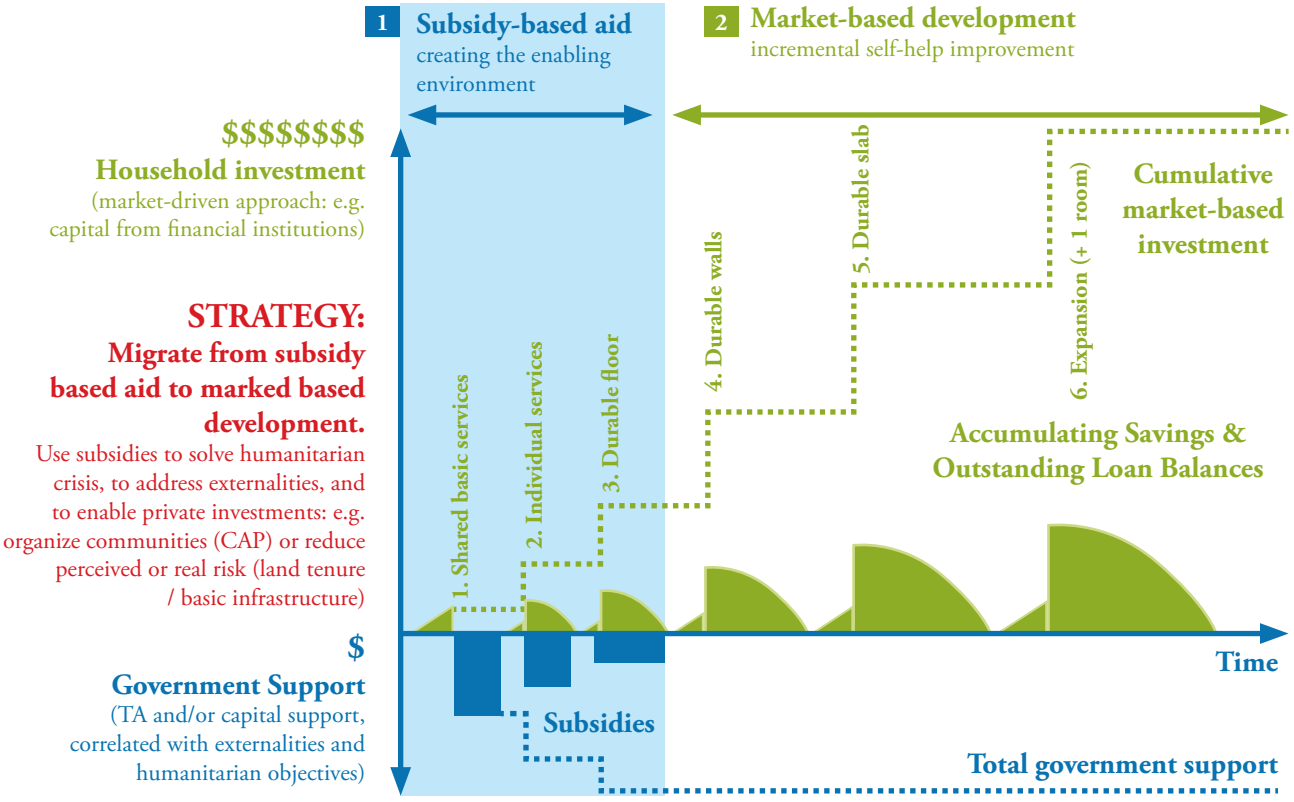
After subsidies have been phased out gradually, further investments in private assets are considered the sole responsibility of households. No subsidies are given no more, but the NGO continues its services providing access to affordable finance and technical assistance.

- Cycle 4 (typical USD 250): medium home improvement (e.g. wall repair)
- Cycle 5 (typical USD 400): large home improvement (e.g. roof or slab)
- Cycle 6 (typical USD 800): home extension (e.g. additional room on slab)

In summary, the government subsidizes the cost of infrastructure construction, facilitates access to trunk infrastructure and provides de-facto tenure security through a verbal 10-year no-eviction guarantee (conditional on the nominal community

co-payment for cycle 1), and the NGO provides social, financial and technical services in the community in order to ensure the proper use of funds and to enhance construction quality. The households' nominal co-payment ensures buy-in and is an important appraisal tool for payment capacity for successive home improvement loans, and sequencing permits the building of a client relationship in order to manage risks (only successful clients graduate to the next product cycle) and, thus, enable markets. The relationship typically starts with a savings cycle with zero risk to the financial intermediary. (Figure 27)

Figure 27: Subsidized and market-based cash-flows of Parivartan Graph is based on stylized facts: investment cycle 1 is the actual Parivartan, cycle 2 links to a subsidy scheme for individual toilet block construction, cycle 3 for an optional scheme (e.g. subsidizing durable floors). All other cycles are market-based. (Source: Nohn, Rapid Urbanism)



The two-phased approach allows to leverage significant private resources, relieving public budgets, which ultimately is the key factor for going to scale. Strategic subsidies mobilize individual households' and communities' incremental investments as resources become available and as societies' prosperity develops over time. This approach is similar to and learns from the successes and failures of historic 'sites and services' and 'incremental housing' approaches implemented by the World Bank and other international agencies on a global scale in the 1970s and 80s[82]; however it is different for example by explicitly appreciating the role of subsidies in creating an adequate enabling environment inclusive of the urban poor and vulnerable, thus avoiding the pitfall of historic schemes of overstretching the idea of (full) cost recovery. Finally, the proposed methodology expands PSUP's capabilities of utilizing traditional financial cooperation instruments (e.g. TA and capital grants) to the full modern range of options (e.g. including risk capital and guarantees for private and financial sector development) in order to address the large-scale need for risk-management and inclusion.

Moreover, the incremental strategy helps to successfully refocus policies on creating an enabling environment for self-help. This approach uses public subsidies strategically in order to leverage private investments for further improvements by households and firms. Figure 27 illustrates how the strategic use of subsidies allows migrating from subsidy-based aid

[82] Cf. (Gulyani, 2016; Turner, 1976). Notably, the approach was (prematurely) abandoned due to some real problems but especially mistakes during evaluations, eventually (Wakely & Riley, 2011) and the Washington Consensus withdrawing the state form the supply side of housing (Goethert, 2005).

to market-based local economic development in the case of the Parivartan Slum Networking Programme in Ahmedabad, Gujarat: the first phase supports formal market entry to a basic, healthy and productive starter environment (e.g. land security, basic services and housing, access to social and economic opportunities) that provides the opportunity to improve upon that enabling environment in the second phase.

Thus, an incremental strategy significantly reduces total public monies spent per household, be it for in-situ upgrading (Figure 28), redevelopment, relocation – all three approaches for 'slum improvement' – as well as new affordable housing to provide adequate alternatives to the formation of new slums (prevention) (Figure 29). Moreover, strategically focusing public monies in creating the enabling environment frees up public resources for going to scale and/or funding other priority investments, such as productive infrastructure and services. Therefore, a strategic, incremental strategy significantly reduced per-unit cost to government and, thus, allows to reach a much larger number of households with the same budget – while mobilizing private investments for local economic development. Thus, developing a strategy that considers time as a resource is imperative.

Figure 28: The obvious advantage of incremental slum improvement Subsidized slum improvement (tenure security, basic services and housing) leveraging successive, incremental improvements (left) versus one-off provision e.g. through in-situ redevelopment with individual services and complete dwelling units in multi-story walk-ups (right). (Source: (Nohn et al., 2016))

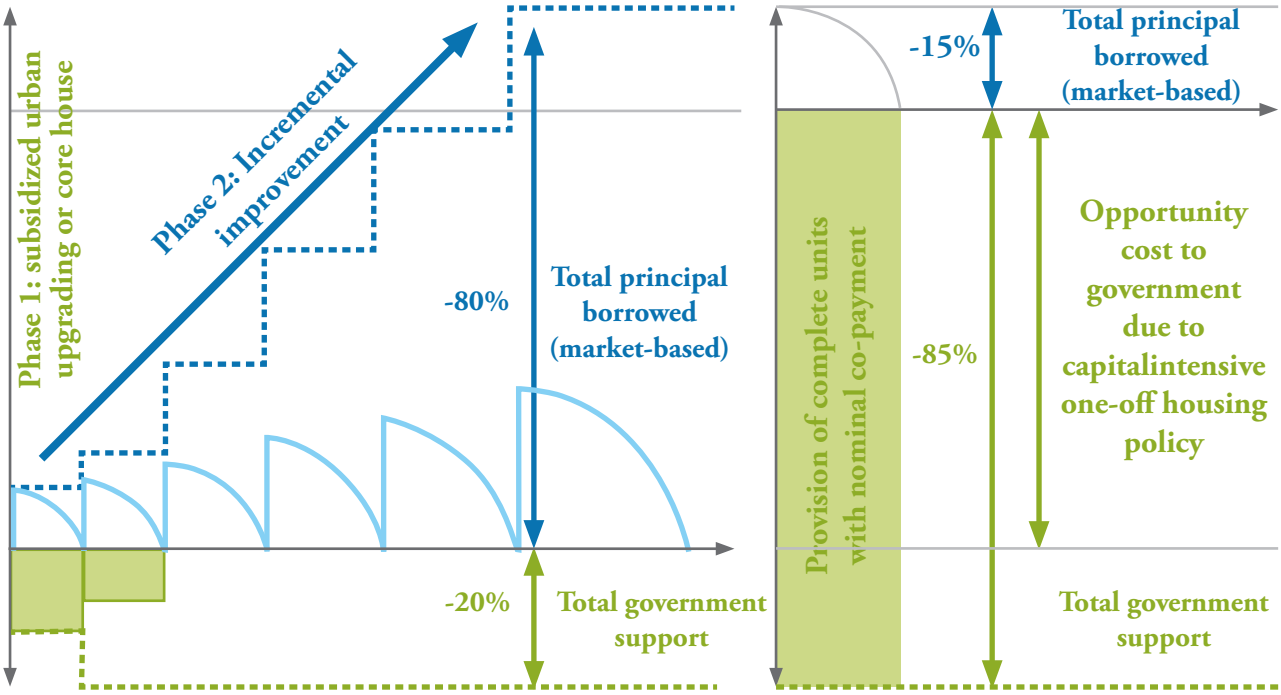
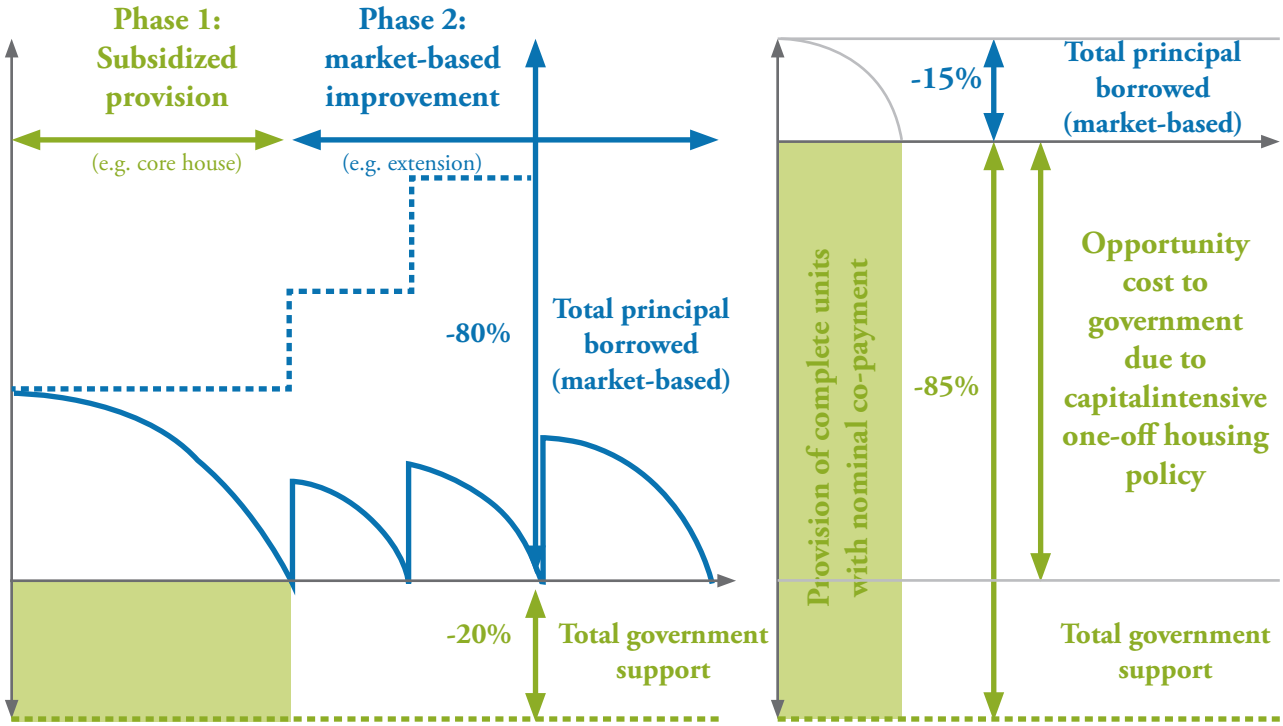


Figure 29: The obvious advantage of incremental slum prevention A subsidized, based and healthy starter environment (e.g. community-based services and a core house) leverages incremental improvement by the community/households (left) versus one-off provision of fully serviced and complete dwelling units in multi-story walk-ups (right). (Source: (Nohn et al., 2016))



Phase I: Building the enabling environment

A decent level of government allocations to support access to adequate land, infrastructure and housing is almost always required. (This is true for developing, emerging and developed countries alike.) However, the level and the targeting of subsidies is anything but trivial. If governments prioritize strategically, they do not only aid the building of inclusive, resilient, safe and sustainable cities, they also enable local economic development and job creation.

In the context of (i) severely constrained public resources (especially budgets, possibly capacity), and (ii) the unprecedented magnitude of the need (rapid urbanization and urbanization of poverty), governments are well advised to focus public support on:

1. Reduction of severe poverty through addressing the most basic housing needs, such as durable floors[83], instead of provision of more complete home solutions.
2. Correcting market failures through the investment of (otherwise undersupplied) basic infrastructure, such as mitigating public health hazards through water and sanitation.[84]
3. Reducing/managing private investment risk through improving investment security through land tenure or hazard mitigation, which may then aid in mobilizing private investments (see on '2 phases' below).
4. Creation of an enabling environment for self-help, inter alia through improved connectivity to the city (cf. right to the city) that also aids households in improving their livelihoods and, thus, increases communities' co-payment capacity for slum improvement and prevention.

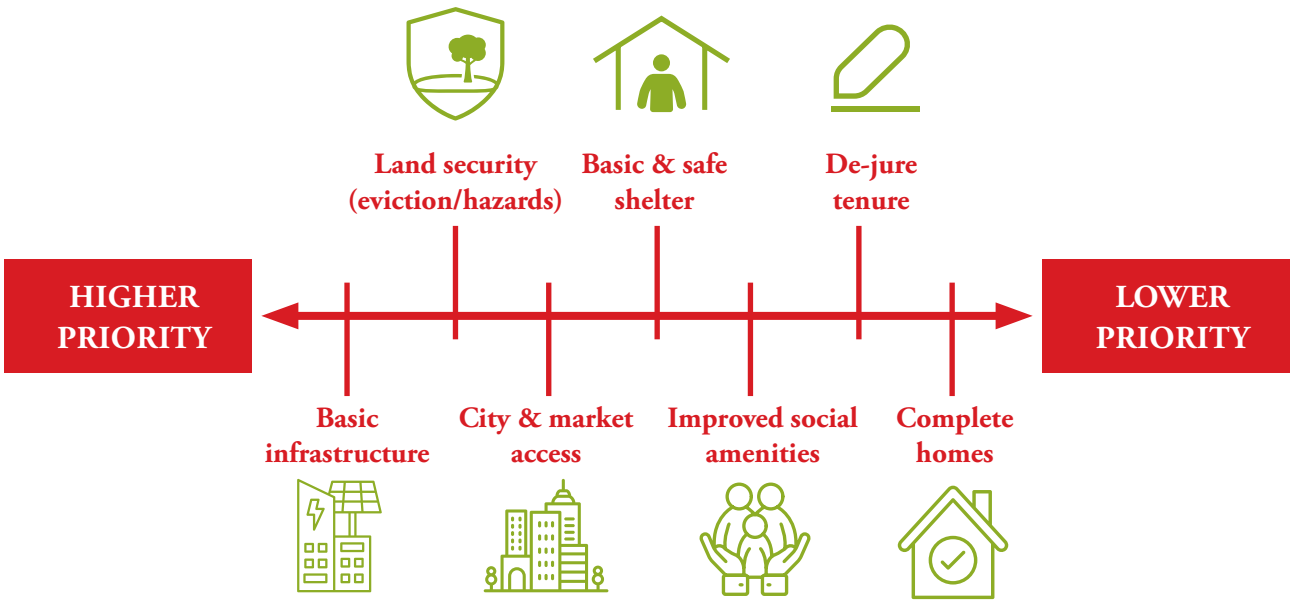
[83] E.g. Piso Firme (lit. Durable Floor) is a highly effective while inexpensive housing program, replacing dirt floors with cement for 300,000 homeowners in Mexico, thus addressing substandard flooring and producing significant gains in welfare and human development. (Cattaneo, Galiani, Gertler, Martinez, & Titiunik, 2009) Inter alia, child mortality is positively correlated with non-durable floor materials.

[84] E.g. (Butala, VanRooyen, & Patel, 2010) found that "slum upgrading reduced a micro-insurance client's likelihood of claiming for waterborne illness from 32 percent to 14 percent and from 25 percent to 10 percent excluding mosquito-related illnesses."

To enable and leverage private investments, it is strategic to address these objectives during the initial phases (phase 1), building the enabling environment with a focus on risk reduction. Moreover, governments should develop a priority list of expenditure items to be supported with public monies. This is also required in order to be focused and to avoid the early exhaustion of public budgets. Overall, investments in public assets that aid in overcoming market failures and in managing/reducing the risk of private investments should be at the top of this list. On the other hand, supporting private housing is relatively less strategic: albeit supporting basic housing for the most vulnerable populations may be considered, subsidizing whole-home solutions for a large population share is out of reach for governments.[85]

Figure 30 provides one example of relative priorities for public intervention for removing the five slum deprivations and, thus, of addressing the slum challenge in a meaningful way. (Nota Bene: the below list is only for illustrative purposes. Each society will need to identify its own priority list and, possibly, the decision about resource allocation is only made at the city or settlement level through participatory processes.)

Figure 30: Exemplary relative priorities for public intervention for removing the five slum deprivations. (Source: Nohn, Rapid Urbanism. Adapted from Nohn et al., 2016. Image credit: Sparc, Goethert, Folha de Sao Paulo, ITDP, Khuda Ki Basti)



The priorities of this example are not to be confused with the priorities for subsidy allocation; while an obvious correlation exists, the question of how to allocate subsidies to end users depends also on households' difficulties in accessing low-interest long-term credit for an asset: arguably, the latter is much easier if the financed asset is serviced land (or the 'support' through a multi-story open shelf building; Type V housing starter) with a long durability, compared to an incrementally constructed home (or user-driven dwelling unit 'infill' into the 'shelf'). For example the land or the support may be financed with a long-term lease, requiring no or virtually no initial amortization and possibly being inflation-indexed, thus asking for very small payments relative to the financed volume; on the other hand, the objective of softening the impact of a relatively higher interest and relatively shorter loan term of microfinance for incremental housing may warrant the subsidy allocation even for a starter home (private asset)

- however, not for a complete home.

[85] Only few exceptions exist, including e.g. Singapore and Hong Kong – which are both city states not dealing with rural urban migration and having access to exorbitant amount of resources due to their harbour and financial centres – or Chile – which is extremely rich of natural resources while facing only moderate urban growth rates and share of substandard housing. Thus, it is hard or even impossible to replicate these cases in most other countries/cities, which face much larger magnitude of the need while having access to lesser resources.

Phase II: Incrementally improving upon the enabling environment

Investment decisions for incremental improvement are taken by the community collectively (community scale: e.g. infrastructure upgrading) and by households individually (household scale: e.g. dwelling materials and size), as it meets their preferences and the availability of resources. As such, incremental development is a form of participation, empowering communities of the urban poor. Access to affordable finance and technical assistance are required to enable success: access improves the speed and quality of self-investments and aids (public) control over the development.

In conclusion, as trivial as the proverb 'time is money' may sound, time may be considered the most valuable resource to be mobilized. (Brown, 2003; Caminos & Goethert, 1978; Davidson & Payne, 2000; Garcia-Huidobro, Torres Torriti, & Tugas, 2008; Hamdi, 1995; PADCO, 1984; Turner, 1968, 1968, 1976; Wakely & Riley, 2011). Further, a phased strategy may also be considered an essential component of participation and empowerment, as the decisions what, how and when of any improvement is made by communities (in regard to the development of shared amenities, such as water networks and road surfaces) and by households (in regard to individual homes, such as upgrading durable materials and expanding the dwelling size).

Annex 7: Comparing subsidy options

Source: adaptation of Rapid Urbanism training material (CC BY-NC-SA 4.0)

MARKET-BASED

Amortization according to EMI.
No intervention.

K	9.45	
N	20	
i/loans	14.00%	(= market)
pmt p.a.	1.43	(= market)
	11891.43	

Banks collect from customer

Years	i	amort	Balance
1	1.32	0.10	9.35
2	1.31	0.12	9.23
3	1.29	0.13	9.09
4	1.27	0.15	8.94
5	**1.25**	**0.18**	**8.76**
6	1.23	0.20	8.56
7	1.20	0.23	8.34
8	1.17	0.26	8.08
9	1.13	0.30	7.78
10	**1.09**	**0.34**	**7.44**
11	1.04	0.38	7.06
12	0.99	0.44	6.62
13	0.93	0.50	6.12
14	0.86	0.57	5.55
15	**0.78**	**0.65**	**4.90**
Σ	**19.09**	**9.45**	—

DOWNPAYMENT SUBSIDY

Amortization according to EMI.
Same payment as current scenario but with downpayment.

Downpayment Subsidy 21.2%

K	7.45	
N	20	
i/loans	14.00%	(= market)
pmt p.a.	1.12	(= FLPP)
pmt p.m.	0.09	

implicit subsidy rate (sensitivity analysis)			
i/loans	10.00%	12.00%	14.00%
matching pmt p.a. of			0.76
subsidy	31.7%	40.1%	46.9%

Banks collect from customer

Years	i	amort	Balance
1	1.04	0.08	7.37
2	1.03	0.09	7.28
3	1.02	0.11	7.17
4	1.00	0.12	7.05
5	**0.99**	**0.14**	**6.91**
6	0.97	0.16	6.75
7	0.95	0.18	6.57
8	0.92	0.20	6.37
9	0.89	0.23	6.13
10	**0.86**	**0.27**	**5.87**
11	0.82	0.30	5.56
12	0.78	0.35	5.22
13	0.73	0.39	4.82
14	0.68	0.45	4.37
15	**0.61**	**0.51**	**3.86**
Σ	**15.05**	**7.45**	—

BUY-DOWN SUBSIDY

Amortization according to EMI.
Matching payment to bridge the gap between required pmt and payment capacity.

NPV Subsidy = 8.5% *
* discount rate: yield on T Bonds

K	9.45	
N	20	
i/loans	14.00%	(= market)
i/deposits	=	discount rate + cost spread
initial p.a.	1.12	(= interest rate subsidy)
years to needed income	5	
pmt p.a.	1.43	(= market)
income growth p.a.	4.9%	

implicit subsidy (sensitivity analysis)		
T	g	Subsidy
3 yrs	8.2%	7.21
5 yrs	4.9%	10.36
8 yrs	3.0%	14.52
10 yrs	2.4%	16.96

Loan Schedule

Years	i	amort	Balance	Pmt. by governmt. Subsidy (nominal) from escrow	Pmt. by customer hh pmt
1	1.32	0.10	9.35	0.30	**1.12**
2	1.31	0.12	9.23	0.25	1.18
3	1.29	0.13	9.09	0.19	1.24
4	1.27	0.15	8.94	0.13	1.30
5	**1.25**	**0.18**	**8.76**	**0.07**	**1.36**
6	1.23	0.20	8.56	0.00	1.43
7	1.20	0.23	8.34	0.00	1.43
8	1.17	0.26	8.08	0.00	1.43
9	1.13	0.30	7.78	0.00	1.43
10	**1.09**	**0.34**	**7.44**	**0.00**	**1.43**
11	1.04	0.38	7.06	0.00	**1.43**
12	0.99	0.44	6.62	0.00	1.43
13	0.93	0.50	6.12	0.00	1.43
14	0.86	0.57	5.55	0.00	1.43
15	**0.78**	**0.65**	**4.90**	**0.00**	**1.43**
Σ	**19.09**	**9.45**	—	**0.93**	**27.60**
			NPV:	**0.80 ***	

Annex 8: Definition of EWS, LIG and MIG over time

Source: http://www.arthapedia.in/index.php?title=Economically_Weaker_Sections_(EWS)

This study refers to EWS, LIG, MIG with the following income thresholds in place, as per the at each time applicable policies:

SCHEME	Year	EWS	LIG	MIG I	MIG II
ISHUP	2009	INR 39,600/a INR 3,300/m	INR 87,600/a INR 7,300/m		
	2010	INR 60,000/a INR 5,000/m	INR 1,20,000/a INR 10,000/m		
	Nov 2012	INR 1,00,000/a INR 8,333/m	INR 2,00,000/a INR 16,667/m		
PMAY	2015	INR 3,00,000/a INR 25,000/m	INR 6,00,000/a INR 50,000/m		
	2019	INR 3,00,000/a INR 25,000/m	INR 6,00,000/a INR 50,000/m	INR 12,00,000/a INR 1,00,000/m	INR 18,00,000/a INR 1,50,000/m

Annex 9: Tax Land Value to Promote Efficiency and Equity

Extract from Nohn, Holz, & Kamiya, 2016, published in Cities Alliance, 2017.

Land Value Taxes (LVT) are not only efficient but also equitable, pro-poor instruments. There are several reasons why this is true, including:

- **LVT are a preferred source of public revenue,** as there is no dead-weight loss of the tax. Land value, and not improvements, should be taxed in order to maximize social welfare. Economists tend to prefer LVT to property taxes. Firstly, because nobody can run away from LVT (whoever owns the land needs to pay, always…); in contrast, people can avoid property taxes by not undertaking an investment project or by underreporting its value or by bribing the valuator. Secondly, LVT are relatively simpler and economical to assess/estimate: for example, they can be based solely on zonal values (e.g. distance to CBD and sub-centres, level of local service provision), possibly adjusted for location (e.g. street width and infrastructures). Therefore, LVT are relatively more transparent and accountable, unlike property tax based on individually surveyed and valued properties, which provides many opportunities for informal arrangements. That said, a property tax is still better than no tax on land, because a portion of the property tax is still based on land value.

Figure 31. The positive impact of land value taxes in reducing the market price of land

Land value taxes capture a share of land values, thus reducing market prices of land in exchange for mobilizing public revenues – while never changing the social value of land. Assumptions: p = LV (d/(d+t)); p = private land price, LV = social Land Value, d = discount rate = 6.00%, t = tax rate. Social land value = market value before taxes. There are no externalities, market failures. Land supply is fixed (Rapid Urbanism, 2016).

SOCIAL WELFARE (private land value + NPV of tax)	$ 100.00	$ 100.00	$ 100.00	$ 100.00	$100.00	...	$100.00
LAND TAX RATE	0%	1%	2%	3%	4%	...	6%
MARKET PRICE OF LAND (private land value after taxation)	$ 100.00	$ 85.71	$ 75.00	$ 66.67	$ 60.00	...	$ 50.00
ANNUAL LAND TAX = Public Revenue	$ 0.00	$ 0.86	$ 1.50	$ 2.00	$ 2.40	...	$ 3.00
NPV OF LAND TAX = Credit Surrogate	$ 0.00	$ 14.29	$ 25.00	$ 33.33	$ 40.00	...	$ 50.00

Text Box 14: An explanation: Why LVT reduces land values.

Consider the default scenario without Land Value Taxation

- You earn a profit of USD 6 per year if buying the land.
- Your discount rate is 6%, as the best alternative investment with similar risk (e.g. in the stock market) pays a dividend of 6%.
- Thus, USD 100 will be the land price, as you would be willing to offer up to USD 6/6% = USD 100.

Now imagine the alternative scenario with LVT

- The government introduces a tax of 1% per year.
- Thus, you need to pay USD 1 every year.
- That means, if you buy the land your annual profit will reduce by USD 1: It will only be USD 6-USD 1 = USD 5.
- Thus, you will only be willing to offer USD 5/6%= 83.33.
- The land price has fallen by 16.67%, due to a tax rate of 1%.

NB: In fact, the above calculation is only an approximation. As the land price falls to USD 85.71, the annual tax would be lower than USD 1. Thus, one needs to iteratively calculate the real price reduction and tax. For our example, the land price would fall to USD 85.71 and the annual tax would be USD 0.86 (see Figure 31)

Figure 32. Land taxation options

Differences between land, improvement and property taxes in traditional, two-rate and pure land value taxes (Dye & England, 2010)

	Land Tax on $100,000	Improvement Tax on $300,000	Property Tax on $400,000
TRADITIONAL PROPERTY TAX 1.00% on both land & on improvements	$ 1,000	$ 3,000	$ 4,000
TWO-RATE PROPERTY TAX 2.50% on land & 0.50% on improvements	$ 2,500	$ 1.500	$ 4,000
PURE LAND VALUE TAX 4.00% on land & 0% on improvements	$ 4,000	$ 0	$ 4,000

- **LVT reduces the market price of land, but does not change its social value.** The reason is that social welfare value corresponds to the private land value plus the net present value of the tax (Figure 31); thus, the tax merely captures and shifts a share of land value to the public sector.
- **LVT can mobilize public revenues of a significant scale.** As the tax base is large (the cumulative land value of all urban lands) and as land is considered an inelastic good, with the tax fully born by the landowner without any dead-weight loss, even a moderate tax of few percentage points will lead to significant (potential) tax revenues. For example, in Australia it is 100% of local tax revenues.
- **LVT are an ideal own-source revenue,** as land taxes typically relate to services delivered locally. Adequate decentralization frameworks align increased responsibilities for service delivery with increased opportunities for own-source revenues.
- **LVT promote investment, stimulating job creation, tax base growth and environmental gains.** For the same reason, LVT may aid in reducing speculation, however only among landholders short of cash. The reason is that landowners need to pay the tax according to the land market value, which is based on the potential highest value use of the land. Thus, landowners not investing in their land, for example keeping it vacant or underdeveloped for speculation, will still need to pay the same value as if the land was fully developed. Thus, landowners may opt for rather developing the land in order to obtain revenue from it, which would lead to economic growth. On the other hand, this logic is disputed, as more powerful speculators (with sufficient liquidity) may just keep the land, as long as the expected appreciation exceeds the tax to be paid.
- **LVT double as credit surrogate for poor homebuyers excluded from access to affordable capital.** Most low and middle-income labourers in developing and emerging economies do not qualify for traditional lending, such as mortgages, for example due to informal employment. As such, they need to rely on other funding sources, including microfinance, kinship networks amongst family and friends or informal financial intermediation, such as money lenders. However, as housing is a capital-intensive good, such sources tend to be too limited in size or too expensive, due to high interest rates, in order to afford entry in the formal market, so that households are forced to develop informally. In this regard, the fact that LVT reduce market prices in exchange for a tax payment is a strong asset. Text Box 2 illustrates the improved affordability through LVT with two alternative scenarios. The logic is that the regular (e.g. monthly) tax payments finance a share of the total land value, similarly but more affordably than a loan does. Two main factors cause the improved affordability:
    - LVT model a perpetual loan without ever repaying the outstanding principal.
    - LVT use a lower implied interest rate. (For example, the below figure uses a real discount rate of 6 per cent. Thus, as long as the inflation is below 14%, the LVT does not exceed the interest rate of 20% in our example. Note that in many cases, unsubsidized interest rates are even higher.)

Text Box 15: Land Value Taxes double as surrogate for affordable credit

Consider a household that needs to finance USD 100 with its own savings of USD 50 plus other funds: either a microfinance loan at an effective interest rate of 20 per cent and/or land value taxes. Now consider two alternative scenarios.

Scenario 1: No LVT – annual payments of USD 16.72.

- Consider an untaxed land parcel with a market price of USD 100.
- With a down payment of USD 50, the loan amount is USD 50.
- At an interest rate of 20 per cent, the interest due at the end of year 1 is USD 10.
- In addition, the household needs to return the outstanding principle: USD 6.72.
- Thus, the total payment at the end of year 1 is USD 16.72.

Scenario 2: LVT of 4.00 per cent result in annual payments of USD 5.74.

- In contrast, consider that the land parcel is taxed at 4 per cent.
- As Figure 31 shows, the market price of the land is reduced to USD 60.
- With the down payment of USD 50, the loan amount is only USD 60-USD 50=USD 10.
- At the interest rate of 20 per cent, the interest due is only USD 2.
- In addition, the returned principle is only USD 1.34.
- Thus, the total loan payment is USD 3.34, compared to USD 16.72.
- However, the household is also obligated to pay an annual tax of USD 2.40 (Figure 10).
- Thus the total payment at the end of year 1 is USD 5.74, which is only 30 per cent of the annual cost of scenario 1 and thus significantly more affordable.

NB: the calculation assumes interest calculation on a declining balance and equal payments.

LVT should be implemented gradually and steadily, with minimal exemptions, so that markets can adjust to relatively lower prices (i.e. prices grow more slowly). In contrast, rapid introduction of LVT may cause deflation, with adverse effects on the economy (e.g. mortgage defaults due to devalued collateral). This arguably also helps the urban poor more, than exemptions through progressive taxation.[86]

In contrast, taxation of land transactions should be avoided. Such charges may be considered a poor approach, as tax evasion tends to fuel informal markets, produces poor data on the market, and disproportionally harms the poor. In sum, they contribute to creating many market inefficiencies from which cities not only in developing and emerging countries suffer. The ground rule of economics and taxation is to tax inelastic goods (e.g. land value) and do not tax elastic goods (e.g. transactions). Thus, as an alternative to taxing transactions, an administrative fee can be charged to cover registration-related expenses; at the same time the land value tax can be increased slightly in order to offset the reduction in revenues. For example: assuming an average transaction interval of 20 years, to offset a waiver of a transaction tax of 10 per cent of the land value, the land value tax rate could be increased by 0.5 per cent only.

[86] It is important to introduce the tax gradually to soften markets, also because LVT, even progressive ones, may be a burden to poor households that already hold land when the tax is introduced. These households paid the full market value when purchasing their land, unable to benefit from the LVT reduction in prices, and are eventually required to pay the tax in addition to the original purchase cost. (However, this argument may not apply, or to a much lesser degree, to households that informally purchased their land, as these households typically anyhow paid much lower prices than in the formal market while they may benefit from reduced formalization cost, for example if fees are calculated based on market prices that reduce with LVT.)

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