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IMPROVING THE IMPLEMENTATION OF AFFORDABLE HOUSING IN INDIA

Project Progress Report: 1/3

Issue Identification and Needs Assessment Report

June 2019



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Introduction

This document serves as a progress report for the project '**Improving the Implementation of Affordable Housing in India**'. This report titled 'Issue identification and Needs Assessment' is led by WRI India and is supported by the Ford Foundation.

The project is contextualized against the present state of implementation of affordable housing schemes by Central and State Governments in India, wherein significant implementation gaps exist. WRI India intends to train and build capacity of government officials towards better implementation of affordable urban housing programs in India, thereby improving the quality of life for the urban poor.

Acknowledgments

WRI India is grateful to the Ford Foundation for its generous grant and continued support to make this project a reality. The project commenced on 1 December 2018, and will conclude by 31 May 2020, a period of 18 months.

Project Team

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1. Background: Pradhan Mantri Awas Yojana (Urban)

In 2012, the Technical Group on Urban Housing Shortage, Ministry of Housing and Urban Affairs, determined the national urban housing shortage to be 18.78 million units, of which 56% was attributed to EWS (Economically Weak Section) and 40% to LIG (Low Income Group) category households. Further, of the total demand, 63% was found to be for self-occupied housing, and the remainder for rental housing (MoHUPA 2012).

In response to these findings, the Government of India as well as several State Governments introduced and/or expanded affordable urban housing schemes. The most noteworthy among these was the Pradhan Mantri Awas Yojana (Urban) (PMAY-U), announced by the Ministry of Housing and Urban Affairs in 2015. In 2017, following a re-assessment, the Ministry of Housing and Urban Affairs estimated the updated validated demand for affordable urban housing to be 10 million units (PTI 2017) which were to be delivered by 2022.

Progress on delivery of housing under PMAY-U remains slow – as per available records, up till 25th March 2019, 79,78,066 units were sanctioned, 44,11,410 units were grounded for construction, 19,05,379 units were completed, and 18,18,764 units were handed over and occupied by beneficiaries – against the validated demand of 10 million units by 2022 (MoHUA 2019). Considering a typical implementation period of 2-3 years, sanctioning procedures need to be completed by 2020 to allow PMAY-U targets to be achieved within the 2022 time-frame (CRISIL 2018). Further, a Draft National Urban Rental Housing Policy was announced in 2015 (MoHUA 2015) but is yet to be officially adopted.

PMAY verticals subsume Basic Services to Urban Poor (BSUP), one of the two sub-missions of the JNNURM Scheme which was further extended in 2015 by two years up to March 2017 only to complete ongoing projects (Times 2015). PMAY-G (Gramin) replaces the rural-focused Indira Awas Yojana, the affordable housing scheme of the previous Government of India (pre-2015) (CRISIL 2018).

The end-user of the program is the 'beneficiary'. A beneficiary is identified and registered by locally relevant authorities in accordance with the Housing Deprivation parameters identified in the Socio-Economic and Caste Census of 2011. At the launch of PMAY-U, beneficiaries were limited to the EWS and LIG categories. However, with recent upward revisions to financial assistance and housing unit sizes, MIG category households may also avail some benefits through PMAY-U. Benefits availed through PMAY-U shall be mandatorily in the name of female and disadvantaged beneficiaries by priority (MoHUA 2016).

Under PMAY – U, four 'verticals' or delivery models have been identified for the delivery of affordable urban housing (MoHUA 2016). These are:

- a) Slum rehabilitation of Slum Dwellers with participation of private developers using land as a resource (In-situ Slum Redevelopment - ISSR)
- b) Promotion of Affordable Housing for weaker section through credit linked subsidy (Credit-Linked Subsidy Scheme - CLSS)
- c) Affordable Housing in Partnership (AHP) with Public & Private Sectors
- d) Subsidy for beneficiary-led individual house construction (BLC)

The program implementation involves the Central, State and Urban Local Body, as illustrated in Figures 2 & 3. ULBs have been made responsible for on-ground implementation, including identification of beneficiaries, demarcation of land, and preparation of Detailed Project Reports (DPRs) and Housing For All Plan of Action (HFAPoA). These are collated and scrutinized at the State Level by an established Nodal Agency, for inclusion in an overarching Annual Implementation Plan (AIP), which is then forwarded for approval and funds disbursement by the Central Government (MoHUA 2016).

LEVEL	AGENCY	ROLE
Local	Urban Local Body (ULB)	Beneficiary listing, DPR & HFAPoA preparation, and ground-level implementation
State	State Level Appraisal Committee (SLAC)	Techno-financial appraisal of received DPRs / HFAPoAs
	State Level Sanctioning and Monitoring Committee (SLSMC)	Approval of HFAPoAs and AIPs, program monitoring
	State Level Nodal Agency (SLNA)	Coordination of implementation across ULBs, revisioning of AIPs, overall beneficiary management
Centre	Central Sanctioning and Monitoring Committee (CSMC)	Overall monitoring, granting of approvals
	Committee of Secretary (MoHUA) and Secretary (DFS)	Monitoring of credit-linked subsidy, target setting
	PMAY-U Mission Directorate at MoHUA	Overall coordination and implementation

Figure 1 - PMAY-U roles across Centre, State and ULBs

Source: WRI India, adapted from (MoHUA 2016)

¹Preference under the Scheme, subject to beneficiaries being from EWS/LIG segments, should be given to Manual Scavengers, Women (with overriding preference to widows), persons belonging to Scheduled Castes/Scheduled Tribes/Other Backward Classes, Minorities, Persons with disabilities and Transgender. (MoHUA 2016)

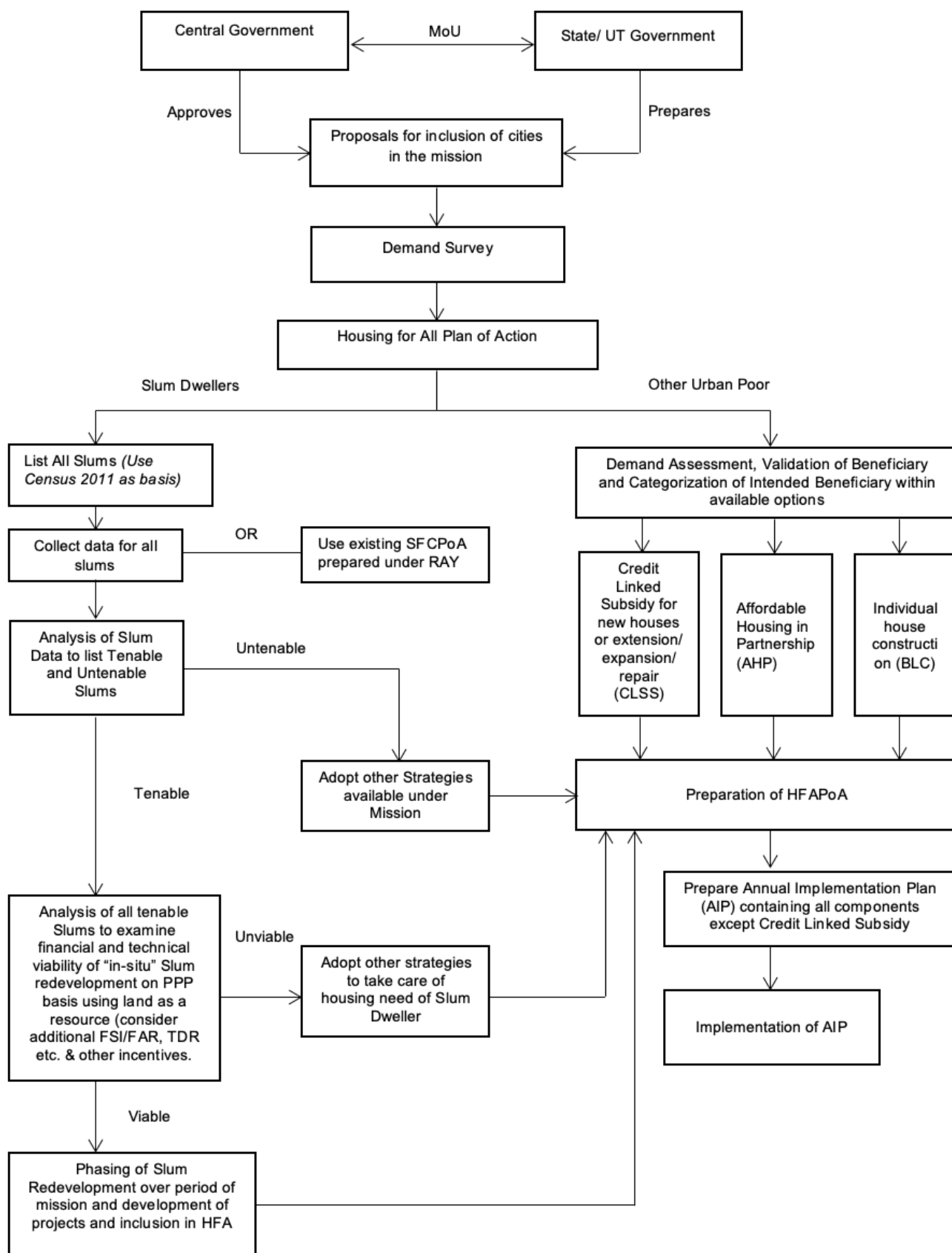


Figure 2. Implementation process of PMAY

Source: WRI India, adapted from (MoHUA 2016)

The meeting of basic social and environmental standards has been mandated through the sanctioning process, through the inclusion of levers such as allotting houses in the name of female beneficiaries, compulsory statements on the disaster resistance capacity of built housing, the conduct of third-party social audits among beneficiaries, geo-tagging and MIS maintenance of delivered housing etc. (MoHUA 2016).

A dedicated Technology Sub-Mission has also been enabled under PMAY-U to catalyze adoption of new and innovative construction technologies in affordable housing, to speed up construction times and lower construction costs (MoHUA 2016).

Among the four verticals, BLC is seen as most popular among beneficiaries, accounting for 56% of sanctioned houses. It is followed by AHP (33%), ISSR (7%), and CLSS (4%) (Scroll 2019). Barring BLC, most group housing projects show a typical implementation period of 2-3 years.

As of November 2018, financial assistance of Rs. 325 billion has been so far released by the Centre towards PMAY-U works, as against a total project investment of Rs. 3.4 trillion (CRISIL 2018). With regard to funding allocation and disbursement, it is estimated that the Centre will need to spend nearly Rs. 1 trillion between 2019-2022 to meet the funding commitments of 10 million units (CRISIL 2018).

Training and Capacity Building is a stated objective of the Housing for All Mission and 5% of the available mission funds have been earmarked for capacity building, information-education-communication (IEC) activities, and administrative / other expenses (MoHUA 2016). The Center's capacity building program is currently being revisited and more recently included a common capacity building program for all missions anchored by MoHUA. 33 institutes were empaneled for one or more of 5 broad subjects – town planning, finance and revenue, administration, engineering and public health, and urban social aspects (Ministry of Housing and Urban Affairs 2018). The sessions were to be delivered in the form of trainings, workshops, and study tours for ULB officers and elected representatives.

It may be noted that WRI India is one of the empaneled institutes, under the subject of town planning.

2. Broad Issue Identification through Literature Studies

To better assess the gaps surrounding the implementation of affordable housing, a literature study was undertaken, the findings of which are detailed as follows:

- The average affordable housing program often must undergo 20-30 clearances across 2 years before construction can even start. The lengthy statutory process delays the pace of delivery and contributes to increasing the gap between increasing housing demand and sluggish supply (KPMG 2014).
- Accessing suitable land on which to develop affordable housing is affected by multiple challenges. Urban planning has remained ineffective in adequately unlocking vacant urban lands or devising ways in which existing land banks can be revitalized. Further, available lands are often under-served by basic utilities and transport infrastructure, and located far from employment zones, making them deeply unattractive for prospective buyers, who prefer the convenience of their existing informal / slum clusters (Kalpana Gopalan 2015).
- Land development regulations are often out-of-sync with latest planning advances and are often decided at the state-level. Resultantly, housing developments suffer from restrictive norms and hurdle-lined service access (KPMG 2017).
- There exist communication gaps between policies drafted at the central level, their acceptance at the state, and their implementation at the local levels. Policies thought to be comprehensive at the top of the hierarchy often struggle to reconcile with ground realities and differences, making their interpretation and implementation contingent on the capabilities of ground-level operatives. (KPMG 2014).

- Existing policies and incentives are seen to be inadequate for attracting serious interest from the private sector. Further, the lengthy timelines increase sensitivity to costs, and the lack of skilled manpower limits adoption of new-age construction practices. (RBI January 2018).
- Private sector players are also seen to be siloed in regions and thus possess limited bandwidth for a deeper immersion into the affordable housing sector. Further, the introduction of regulations like RERA has further decreased the number of active players in the sector (Deloitte 2016).
- Lack of focus on sound design and technology underpinning affordable housing construction is seen to drive up lifecycle costs and lower attractiveness of housing for the beneficiaries. The current focus remains on mass-producing basic templates, which remain incompatible with local weather, lifestyles, and aspirations (Tiwari and Rao April 2016).
- Beneficiary engagement and selection is seen as an area of critical concern. Beneficiary listing is a mammoth task that suffers from political interference, as is allotment. Additionally, while social auditing has been mandated as part of the PMAY-U process, its actual impact on the program remains ambiguous. Resultantly, beneficiaries complain of exclusion or dissatisfaction (Deloitte 2016).
- Operationalization and maintenance of delivered housing needs greater focus. As evidenced from several existing examples, this may result in the profusion of 'new urban slums' or 'vertical slums', where the despondency of housing conditions persists despite the relocation to a newer premise (Gupta July-2018).
- System-wide capacity constraints further limit the ability to transform the affordable housing sector. Governments are unable to rapidly anticipate or adapt to new practices, while private sector players find it hard to shift to new paradigms in the existing culture of due processes. Academia and beneficiaries complain of receiving little space for participation (CRISIL 2018).
- A Working Group on Capacity Building in Urban Development (GOI 2017) noted that many states and cities have been unable to leverage available project funds or implement reforms because of a lack of local capacity and technical expertise. It was noted that Capacity Building has been so far accorded very low priority and is largely limited to administrative training. Demand is limited, sporadic and event based with no evidence of systematic planning, resource allocation or execution of skill enhancement programmes. Communication channels with the private sector and civil society are also not very effective.

3. Project Methodology

STAGE	COMPONENTS	OUTCOME
1. Context Setting and Issue Identification	<ul style="list-style-type: none"> • Literature study • Broad issue identification • Methodology formulation 	Issue identification and Needs Assessment Report
2. User Needs Assessment	<ul style="list-style-type: none"> • Stakeholder identification • Rapid survey of end user (government official's) needs • Online survey with multiple stakeholders • Key person interviews • Pedagogy understanding • Proposed activities timeline 	
3. Curriculum and Content Development	<ul style="list-style-type: none"> • Partner identification and agreements with 3 States • Detailed assessment of partner organization's needs • Curriculum finalization and content generation 	Curriculum and Content Development Report
4. Workshop Planning and Delivery	<ul style="list-style-type: none"> • 3 regional workshops • Venue and event planning • Securing participation of approximately 3 x 20 participants • 3 days duration (lunch to lunch to lunch) • Participant feedback and assessment • KPIs to measure impact 	Regional Training Workshops Report
5. Findings Collation and Learnings Framework	<ul style="list-style-type: none"> • Identification of lighthouse projects for future site visits and case study documentation • Initial conceptual framework to build a knowledge repository and set up a peer learning network 	Conceptual framework for Peer Learning and Knowledge Sharing

A multi-tiered approach that involves sectoral diagnostics, needs assessment with stakeholders, program design and delivery, and evaluation will be undertaken which is in line with methodologies used by other international organizations such as UNDP for training and capacity building purposes (UNDP 2008). The programme will be designed and delivered on a sound evidential base whilst incorporating inputs from target groups during inception, administration, and evaluation.

The proposed 5 stage process is as follows:

1. CONTEXT SETTING AND ISSUE IDENTIFICATION

The diagnosis stage will include a detailed literature review of publicly available documents with a focus on understanding the challenges that have surrounded the implementation of Central and State led Schemes such as the Pradhan Mantri Awas Yojana (Urban).

2. USER NEEDS ASSESSMENT

Feedback will be sought from a diversity of stakeholders including a rapid assessment of end user needs such as those of government officers tasked with the delivery of affordable housing schemes at the State level. The methods used will include rapid assessments, broad based online surveys and one on one interviews. These findings will inform the pedagogy to be used for capacity building and training.

3. CURRICULUM AND CONTENT DEVELOPMENT

Focusing on the targeted needs of the end users, and learnings from previous assessments, a curriculum will be designed. Actual content generation will be undertaken internally as well as outreach to subject experts who will become faculty for specialized trainings. Agreements with partner States/ institutions will also be secured at this stage.

4. WORKSHOP PLANNING AND DELIVERY

The 3 regional workshops will span approximately 3 days (lunch to lunch to lunch) and train approximately 20 officials each. The operationalization of the workshops will include venue, travel, logistics and the delivery of trainings as per the agreed pedagogy. Key performance indicators will assess the impact of the trainings based on feedback gathered from participants.

5. FINDINGS COLLATION AND LEARNINGS FRAMEWORK

The concluding stage of the project will collate all findings into a framework for the future setting up of a learning platform. The platform will allow peer to peer learning, case studies, video logs and blogs and guide books for extended learning.

The scope of this report is limited to centrally led affordable housing schemes that are implemented by states, specifically the Pradhan Mantri Awas Yojana – Urban (PMAY-U). At a later stage in the project, based on the needs of identified partners at State levels, regionally implemented housing programmes (if applicable) will also be evaluated to ensure delivery of relevant content.



4. Stakeholder Identification and Feedback

4.1 STAKEHOLDER IDENTIFICATION AND GROUPING

The many facets of affordable housing and its on ground implementation challenges are best understood from the perspective of the various stakeholders that operate in this space. Mapping these stakeholders will allow a more nuanced assessment of feedback received. Adapting the framework proposed by (Aapaoja and Haapasalo 2014), the following broad stakeholder groups have been identified in relation to affordable housing implementation:

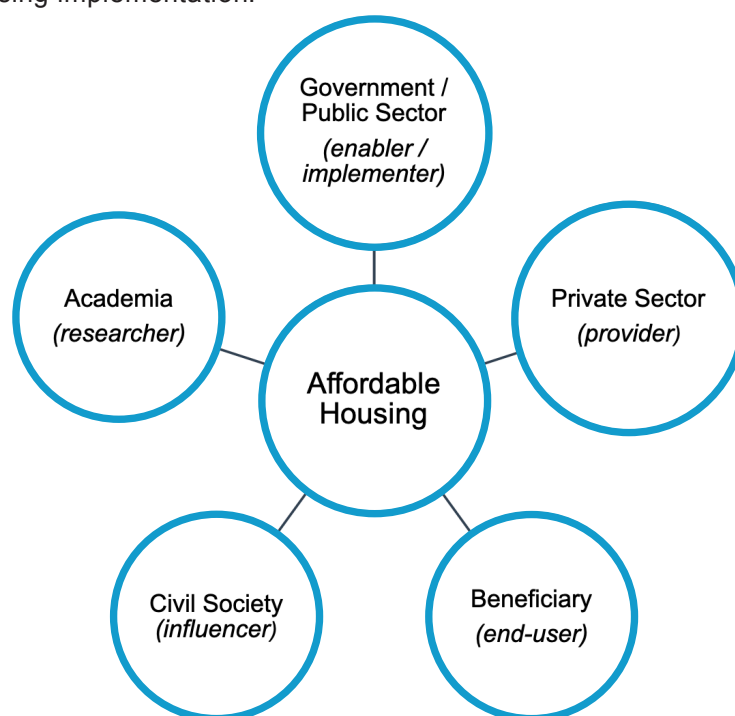


Figure 4 - Identified Stakeholders

Source: WRI India

The stakeholder groups identified may be further sub-classified, but such an exercise will be deemed more optimal at a smaller, project-specific scale (Aapaoja and Haapasalo 2014). This grouping of stakeholders was contacted, including through representative organizations to gauge their feedback and opinions.

4.2 RAPID TRAINING NEEDS ASSESSMENT WITH END USERS

In the affordable housing sector, policies, guidelines, schemes and monetary allocations are done by the Center. At the State level it is Housing Boards, Slum Development Boards and Urban Local Bodies that implement affordable housing projects and enlist beneficiaries for the same under both Center led as well as State led Schemes. For the purposes of understanding this project better prior to inception, a limited Training Needs Assessment (TNA) survey was undertaken in May and June 2018 with officials tasked with the provision of Affordable Housing at the State and city levels.

a) Housing Board/ Officials (target group) interviewed:

- i. Karnataka Slum Development Board
- ii. Rajiv Gandhi Rural Housing Corporation Limited, Karnataka
- iii. Maharashtra Housing and Area Development Authority
- iv. Delhi Development Authority (PMAY Scheme and Janta Housing divisions)
- v. Affordable Housing Mission, Gujarat
- vi. Gujarat Housing Board
- vii. Ghaziabad Development Authority, Uttar Pradesh

The questionnaire of this rapid survey is available at Annexure 1 and a summary of the feedback received is as follows:

b) Overall challenges faced by the target group:

- Policies and guidelines are prepared at the level of the Central Government, whereas implementation happens at the State level. Due to this there is a gap in communication of the intent and roll out of many schemes and missions, which tend to broad brush out ground realities and complexities in the delivery of affordable housing. Directives and guidelines issued from time to time are insufficient for local agencies to implement if there is no handholding;
- Training and capacity building in affordable housing is being conducted currently as per the mandate of government schemes. However, these remain prescriptive in nature, are classroom style trainings and lectures which are not considered effective as participants rarely translate learnings into action. Often, these training sessions become more of a tick-mark exercise with mandatory attendance requirements, as it is compulsory for government officials;
- Public private partnerships have not made much of an impact in the affordable housing sector despite being recommended in PMAY scheme guidelines. Local agencies have little experience of PPP in affordable housing and with minimal details in guideline documents, they are unable to take forward this critical segment;
- Entry level staff have a long learning curve and ends up being taxing on more senior staff to onboard them and capacitate them into the system especially familiarizing them with intra-governmental dealings and processes;
- Training typically occurs in silos and on limited issues and hence does not equip government agencies to deal with the complexities of affordable housing provision on ground. E-learning was found to be ineffective and disconnected, and often being voluntary, does not happen given tight work schedules, and
- The difference in the needs of a large metro city were found to be very different from that of a smaller city, but there was no recognition of these diverse conditions. Smaller cities whose problems of housing urban poor are not as intense can provide more scope to experiment with new technologies, sustainability, and other such ideas.

c) Overall training needs highlighted by the target group:

- As government officers are hard pressed for time due to day to day work pressures, conducting their own research on how affordable housing is managed in other States or in international contexts is difficult. The interest was to understand how these practices can inform projects, with their contextualization to India being an important requirement;
- An integrated approach that deals with various dynamics of the problem whether it be across economics - finance - government policy - economics - beneficiary - finance models - physical infrastructure etc. was considered a better approach than a siloed topic-based approach. It was also felt that case studies which explain what worked as well as what didn't could be a way to achieve this;
- A broader understanding of how affordable housing fits in the larger urban planning domain was requested and where various policies and schemes fit it. This would include an understanding of various planning aspects including Development Plan (DP), Town Planning Schemes (TPS), Development Control Regulations etc. Creation of land banks for affordable housing such as the use of land acquisition, land pooling, TDR and slum rehabilitation would also be important;
- Brining in PPP in affordable housing was found to be a critical requirement across board to meet the affordable housing deficit including procurement and contracting models;
- The interest in training was evenly spread across needs such as improving existing understanding and skills, meeting and interacting with peers and experts, experiencing new technologies, systems and sites as well as about learning new subjects, concepts and approaches;
- There was also a pan state interest in how social audits, which is now mandatory could be conducted better. This would include aspects such as beneficiary and community engagement, enumeration strategies and alternatives to relocation. Feedback loops from beneficiaries upwards would also serve as an important tool to better the delivery, design and location of affordable homes;

- Introduction to the use of new and innovative construction technologies and new prototypical designs and various standards and codes to be followed;
- Programs that offer hand-holding through policy implementation and boosting their performance in day to day tasks were considered necessary. This would include a host of tasks such as preparation of detailed project reports (DPRs), HFA Plan of Action (HFAPoA), estimation and costing, use of schedule of rates (SORs) preparation and evaluation of RFPs/ tender evaluation process, checks for quality control, vigilance practices, work scheduling like CPM/PERT including training for software like primavera or MS project;
- Trainings in Management Information Systems (MIS), geo tagging and overview of Geographical Information Systems (GIS), and
- Use of targeted and effective marketing strategies for houses constructed to be imparted to State and City agencies to ensure successful uptake by beneficiaries

4.3 ONLINE SURVEYS WITH A CROSS SECTION OF STAKEHOLDERS

In the affordable housing sector, policies, guidelines, schemes and monetary allocations are done by the Center. At the State level it is Housing Boards, Slum Development Boards and Urban Local Bodies that implement affordable housing projects and enlist beneficiaries for the same under both Center led as well as State led Schemes. For the purposes of understanding this project better prior to inception, a limited Training Needs Assessment (TNA) survey was undertaken in May and June 2018 with officials tasked with the provision of Affordable Housing at the State and city levels.

The questionnaire of this online survey is available at Annexure 2, the complete list of respondents is available at Annexure 3 and a summary of the feedback received is as follows:

a) Profile of survey respondents:

A total of 49 online responses were recorded in the month of April and May 2019, of which 33 respondents chose to identify themselves by name and designation.

Survey Respondents: Stakeholder Types

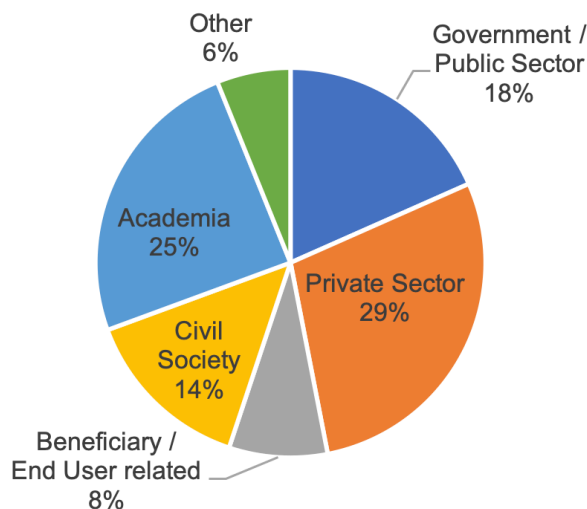


Figure 5 - Survey respondents by stakeholder type

The respondents were primarily from the Private Sector (29%), followed by Academia (25%) and Government / Public Sector (18%). Civil Society (14%) was followed by a smaller number of Beneficiaries/ End Users (8%) and Other (6%).

Respondents were geographically spread across India and included cities such as Delhi, Ahmedabad, Gurgaon, Pune, Chennai, Mumbai, Chalakudy, Dehradun, Hyderabad, Jaipur, Kochi, Lucknow, Rajkot, Rohtas, and Tirunelveli.

b) Role/ Involvement of respondents in the Affordable Housing space

Respondents were asked to further specify the focus area in which they play a role/ are involved with. Multiple options could be selected, and responses were spread across the indicated categories as follows:

- Policy Formulation: Setting guidance frameworks and principles for affordable housing in India at Central, State or local levels (16% of all respondents)
- Project Preparation: Translation of policy to projects such as land identification, seeking requisite permissions and ensuring provision of basic infrastructure services (15%)
- Innovation, Design and Construction Technology: Incorporating innovations in resource use, ensuring culture and climate sensitive designs and site appropriate construction technology (25%)
- Finance Provision: Enabling or accessing systems for fund flow and credit streams (4%)
- Construction and Execution: Implementation of actual project on site, leveraging labor, material, equipment or finances (16%)
- Operations and Maintenance: Ensuring the project post construction is functioning and in good condition through provision of various services (4%)
- End User (Beneficiary) related: Occupier of the constructed building or person enlisting the beneficiaries or conducting social audits (7%)
- Others: (14%) included respondents who identified as technical consultants, academicians, and capacity building personnel.

c) Issues highlighted in affordable housing implementation by respondents:

Challenges in Affordable Housing Implementation by Thematic Area

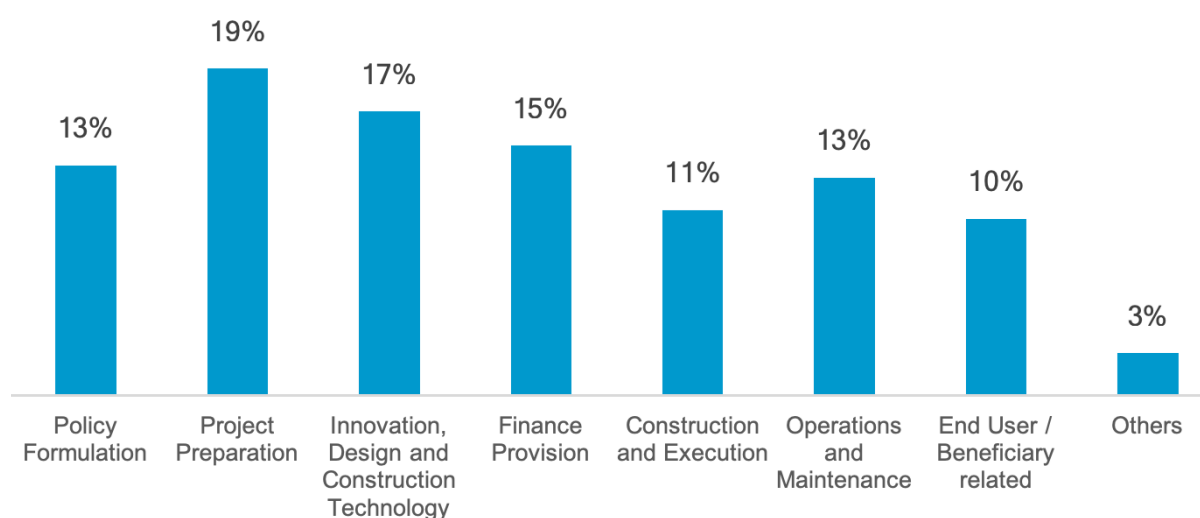


Figure 6 - Prioritization of Issues in Affordable Housing

The respondents selected key thematic issues (multiple options could be selected) as follows under Policy Formulation (13%), Project Preparation (19%), Innovation, Design and Construction Technology (17%), Finance Provision (15%), Construction and Execution (11%), Operations and Maintenance (13%), End User (Beneficiary) related (10%), and Others (3%).

Explanations were sought to the thematic issues and responses received were as follows:

• SERVICED LAND UNAVAILABILITY

Lack of affordable land at a suitable location, with basic infrastructure services where the lowest income groups can build/ be allotted housing was one of the top issues highlighted. Suitable land in the large metropolitan cities is very hard to come by. Distant allotments result in non-occupancy by beneficiaries. Existing landowners do not have clear incentives/ willingness to make land available for affordable housing. Connectivity with the main city/ livelihoods is also inadequate from distant locations.

- **POORLY DESIGNED HOUSING**

Developments often lack open spaces, and do not provide for adequate natural light and ventilation. Housing is often thermally uncomfortable and simple techniques of passive architecture and climatic design are not understood/ employed to improve the livability of affordable homes especially in a hot country like India. The views and needs of the end user/ beneficiary of the house is never taken into consideration and a top down design is imposed which is often not desirable. Operation and maintenance post building construction is a challenge. Technological advancements have not sufficiently penetrated the affordable housing construction space and the speed of supply of affordable homes has not increased significantly in many States.

- **INFORMATION ASYMMETRY**

Lack of transparency in the way projects are conceived, beneficiaries are listed and how allotment is carried out. Systems such as MIS are not used at State and Central levels to monitor project progress. New technologies to transparently map the most deserving candidates are also absent. The tendering systems is designed and geared to give unfair advantages to local low-quality suppliers and create a distorted market.

- **LACK OF FINANCING**

Banks often do not come forward as willing participants to finance affordable housing projects and targets under the CLSS Scheme are typically unmet. Often funds from the center get utilized to lay the foundations of projects, but the remaining funds which need to come from the State and beneficiaries get delayed, thereby delaying projects. Availability of finance, options of various types of loans for long term home financing and improvement are difficult to access for beneficiaries. The informal nature of incomes makes formal finance difficult to access. Single window clearances are not present for finance.

- **INEFFECTIVE POLICY FRAMEWORKS**

Policies formulated at the Center, are sometimes ambiguous when played out on the ground in States and cities as policy formulation does not occur in parallel. Policies such as single window clearance, land banking, and Nirmiti Kendras at district level are often absent. Permissions and sanctions are a lengthy procedure. National housing policies focus on individual houses and not housing, projects such as PMAY Urban are few.

- **END USER/ BENEFICIARY APATHY**

Tenure rights in slums are difficult to come by for existing residents, and there is no handholding for legalization of communities in the economically weaker sections. End user identification, awareness of their rights and responsibilities and ensuring a connection to livelihoods including capacity building for them through NGO partnership is missing. Target beneficiaries are unable to coming up with demand backed by funds/ loans and steady income options to pay back. In schemes such as ISSR and AHP, end user identification is difficult in earlier stages of the project.

- **RENTAL HOUSING ABSENCE**

There is no acknowledgement of rental housing especially in the affordable housing space which causes further market distortions. No verticals in central schemes acknowledge this segment as well.

- **POOR PRIVATE SECTOR PARTICIPATION**

Current policies do not favor developers to build and supply affordable housing. The tax benefits available for affordable housing are not easily understood/ undertaken by developers.

- **LOW CAPACITY AND CAPABILITY**

State and urban local body capacities remain very low. Officers are often stretched to their limits with day to day tasks and there is low willingness to change their way of working especially in the absence of visionary leadership such as a district collector or commissioner. A single point of responsibility is not available. Quantification of problems and implementation are not technically well specified. There is an overall reluctance to go beyond conventional practice and adherence to their respective Schedule of Rates remains rather than introduce proven low carbon-footprint alternatives in construction.

d) Recommendations for a capacity building program targeted at government officers

• MAKING SERVICED LAND AVAILABLE

Strategies by which cheap land could be made available/ land banked for affordable housing in cities must be imparted. Services must be provided to sites before affordable housing projects are undertaken.

• IMPROVING HOUSING DESIGN

Sensitization towards innovative solutions, new materials, design and new construction technologies is important. Economical construction must be clubbed with environmental ways of climate sensitive construction as well. Social audits need to become an integral part of the housing process and feedback received should be taken into housing design. Strategic interventions to resolve issues that persist in unallotted building stock also needs to be undertaken.

• FORMULATING ACTIONABLE POLICIES AND SEEKING FEEDBACK

Enhance ability to translate policy implications into actionable points. Initiate a platform that invites designers, consultants, contractors, government officials and beneficiaries onto a single platform for interaction to understand real challenges and thereby to address issues. State and city specific variations must also be addressed, including encouraging the provision of affordable houses beyond available Central schemes to meet the large demand gap.

• INITIATE RENTAL HOUSING

Rental housing should be introduced as a fifth policy vertical. Exploring components of rental housing is urgent as it is only privately done currently, and examples of social-rental housing in Norway, Sweden could be understood.

• ENCOURAGE PRIVATE SECTOR PARTICIPATION

Government should tie up with small and medium sized entrepreneurs to scale the accessibility to government housing projects and approvals. GIS specialists who are already working in schemes such as AHP (PMAY-U) could be chosen for capacity building programmes to enhance use of technology related applications. Micro finance markets could be encouraged to bridge the gap in housing finance.

• HOLISTIC APPROACH TO HOUSING

An end to end view of housing needs to be understood rather than a construction/ numbers led approach. New knowledge from national and international case studies is required to increase awareness of solutions. Skills imparted must be retained, exercised and transferred as an institutionalized process. Clear process maps will help all stakeholders understand schemes better. Design thinking is necessary including inculcating a general sense of lateral thinking. A municipal cadre dedicated to housing needs to be set up to accord priority. Hiring of external experts could also be addressed. Lower level officers who process clearances and are involved in demand aggregation and allotment need to be capacitated on priority. The institutional ecosystem required for the successful implementation of affordable housing projects needs to be undertaken. Re-Training Centres could be set up near State Capitals for architects, engineers, decision makers and approving agencies as well as for construction workers to impart knowledge in fast, durable, eco-friendly, sustainable and aesthetically designed and constructed housing.

4.4 KEY PERSON INTERVIEWS

One on one interviews were conducted with representatives of organizations in the affordable housing space which included the Town & Country Planning Organization (TCPO), National Institute of Urban Affairs (NIUA), Delhi Development Authority (DDA), Allahabad Development Authority (ADA), School of Planning and Architecture - Delhi (SPA) and the Centre for Environmental Planning and Technology - Ahmedabad (CEPT). The interviews were conducted in person and through telephonic conversations.

The discussion questions were specific to the type of stakeholder but focused on understanding specific challenges and focused recommendations for capacity building in the affordable housing space. The questionnaires are present in Annexure 4. The complete list of key persons is attached at the end of the report as Annexure 5.

The key takeaways of the discussions are as follows:

- Only a handful of state governments have the required expertise to develop housing policies and to deliver affordable housing at scale. Policies are often replicated by States without any adaptation whatsoever. Assistance needs to be extended to such States to help them devise better policies and projects. Large cities need to be equipped with specific contextual policies and frameworks to better account for their inherent complexities, such as their large rental markets and the subsequent distortion of housing prices;
- Governments must learn to forge efficient partnerships with private actors, including at the hyper-local level with land-owners and suppliers to resolve issues in affordable housing;
- Government officials need to be better acquainted with new technologies and materials and be assisted towards developing new frameworks such as schedules and tender formats that can facilitate the adoption of innovative solutions;
- Affordable housing must be designed, delivered, and operationalized in a manner which is contextually and climatically sensitive. This includes addressing thermal comfort, site topography, cultural preferences, lifestyles, local materials, vendor supply chains etc;
- Demand assessment need to be better administered, as many beneficiaries lack complete information with regards to various verticals available under PMAY,
- Existing capacity building programs are largely prescriptive, and lecture based, and participants attend them to meet reporting requirements alone. Lack of post training assessments of learnings from these training programs often creates a non-serious approach from the participants.

5. Conclusions and Pedagogy for Trainings

Through the various methods of outreach employed for gathering feedback, many common themes are emerging in terms of topics/ issues to focus trainings on, and how these trainings could be imparted.

a) Emerging topics/ issues for training include:

- a) Making suitable, well located and serviced land available for affordable housing;
- b) Improving the design of houses to be thermally comfortable, designed as per end user needs and the use of new technologies to improve construction quality;
- c) Encouraging private sector participation in affordable housing provision;
- d) Introducing rental housing as a new and much awaited scheme in social housing;
- e) Management Information Systems (MIS) and use of new technologies such as GIS (Geographical Information Systems).

These emerging topics will be detailed out in addition to incorporating individual partner (State's) needs. Trainings typically will also include basic definitions, critical issues of the sector, a spectrum of existing housing types, an overview of the various schemes of government and their provisions. A broader understanding of how affordable housing fits in the larger urban planning domain and where various policies and schemes fit it will also be included.

b) Approach to a Capacity Building Pedagogy:

To ensure trainings are not unidirectional, monotonous lectures that are attended only due to an official mandate; an experiential and quality-driven approach to capacity building will be undertaken. User feedback will be incorporated at various deployment stages including post training delivery to assess effectiveness and enable course correction. WRI India will build on its prior expertise in training and capacity building to derive an appropriate pedagogy.

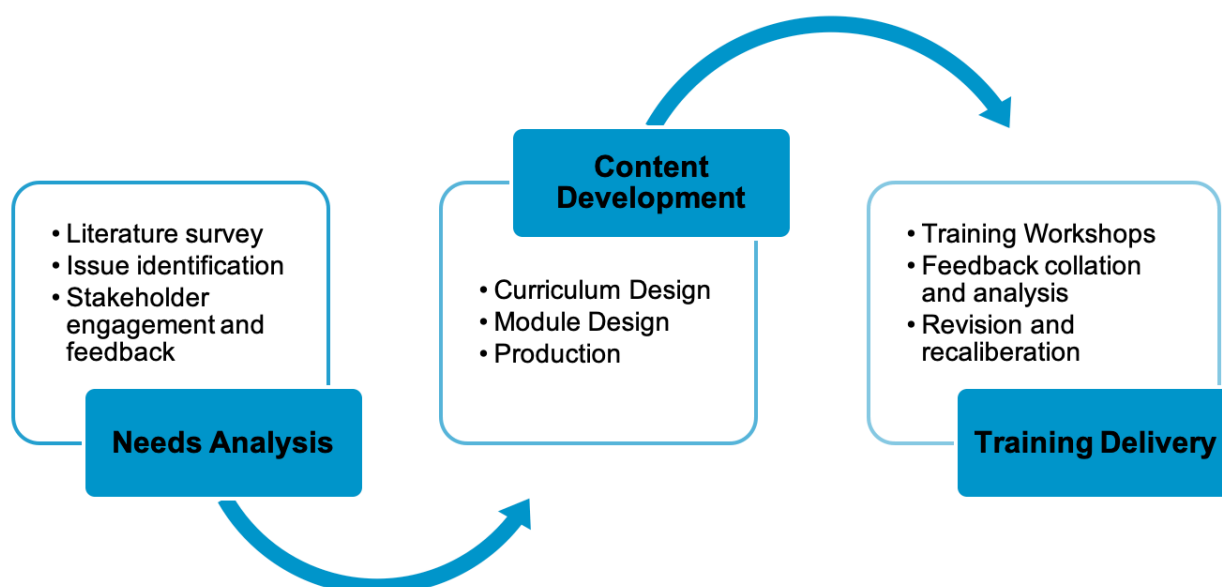


Figure 7: Framework for a user-driven capacity building pedagogy

Source: WRI India

Training will be deployed through a variety of formats that can match the varied learning capabilities of participants. These formats will further emphasize hands-on, case-oriented and delivery-focused learning, with the overall intent of enabling participants to improve their decision-making capabilities. Some applicable formats that WRI India already has experience in administering include:

- **Classroom Learning** will be used to foster expert – audience interactions, using methods such as case studies, group discussions, and curated table activities and even games to complement knowledge building through conventional explanatory talks.
- **Experiential Learning** will be used to contextualize classroom learnings against site visits to actual projects and interactions with active implementers and other on ground stakeholders.
- **Remote learning** will be based off content and engagements that the training participants may access online, as per their interests and convenience subsequently to continue their learning trajectory. These can include published resources, webinars, and a knowledge platform or online repository.

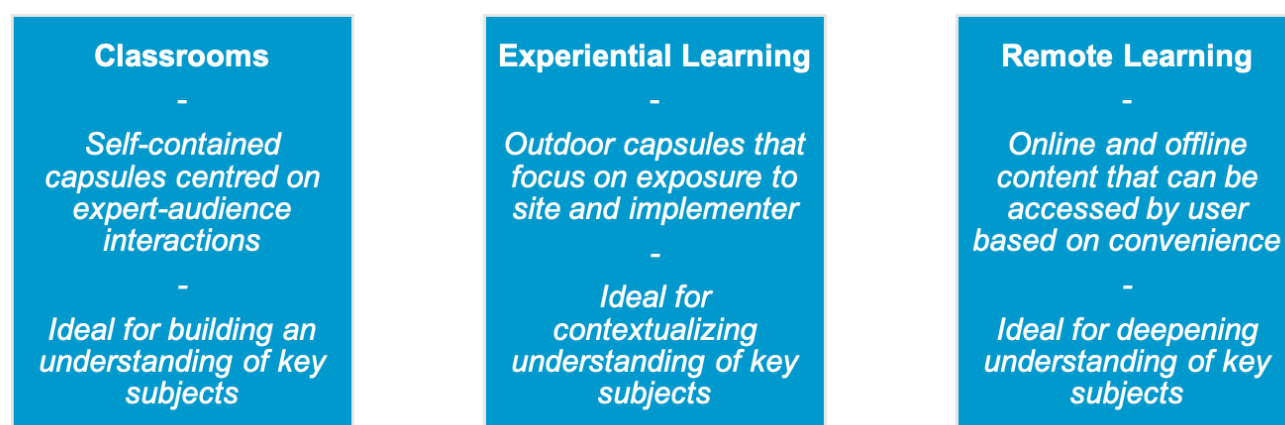
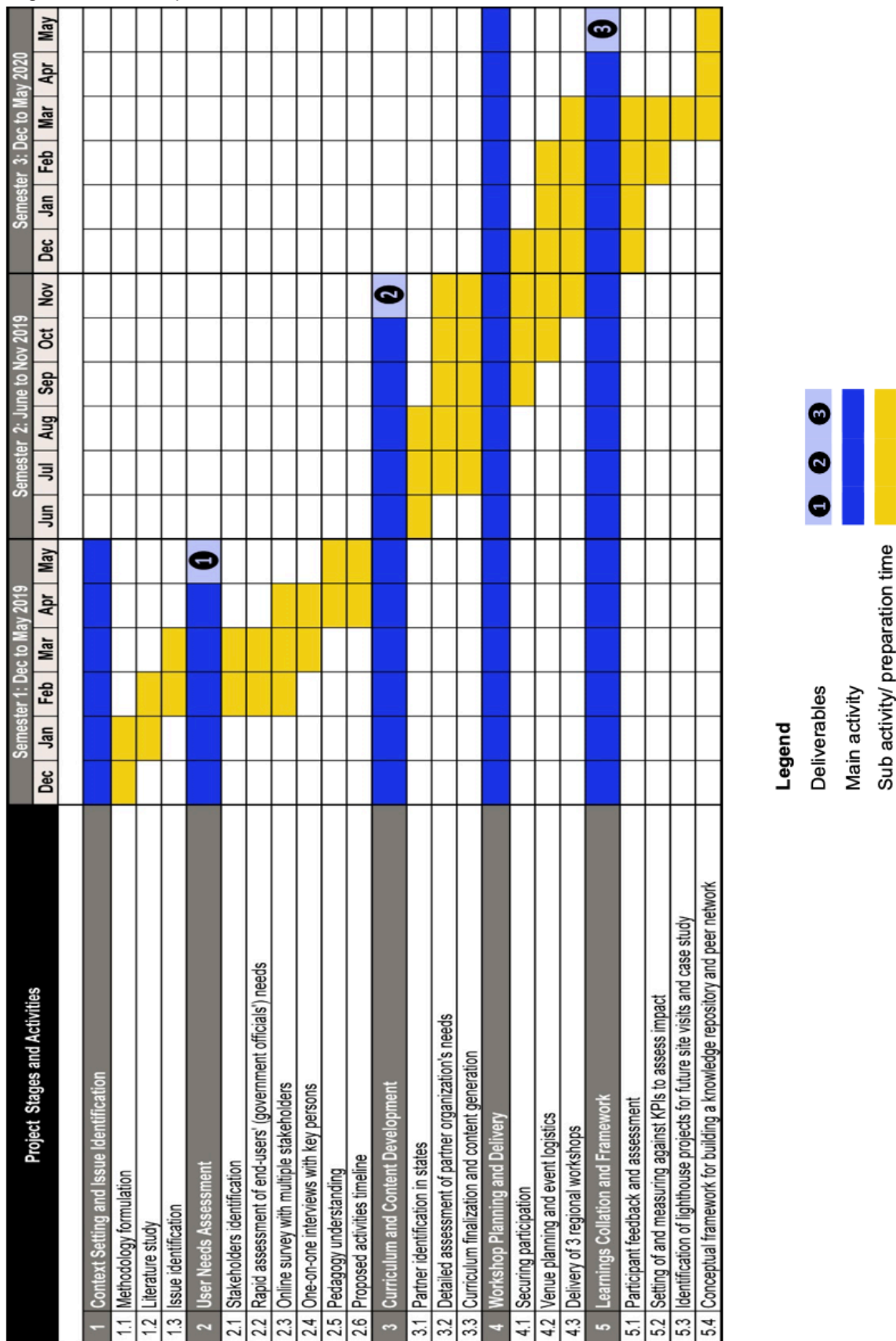


Figure 8: Training formats envisioned as part of self-learn capacity building pedagogy

Source: WRI India

6. Way Forward and Timeline

The next step includes formalizing partnerships with Central and State Government agencies to conduct the 3 regional training and capacity building workshops. Detailed curriculum will be finalized with the selected partners, and appropriate content modules will be prepared for subsequent delivery at the 3 regional workshops.



7. About WRI

The World Resources Institute is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity and human well-being.

OUR CHALLENGE

Natural resources are at the foundation of economic opportunity and human well-being. But today, we are depleting Earth's resources at rates that are not sustainable, endangering economies and people's lives. People depend on clean water, fertile land, healthy forests, and a stable climate. Liveable cities and clean energy are essential for a sustainable planet. We must address these urgent, global challenges this decade.

OUR VISION

We envision an equitable and prosperous planet driven by the wise management of natural resources. We aspire to create a world where the actions of government, business, and communities combine to eliminate poverty and sustain the natural environment for all people.

OUR APPROACH

Count It

We start with data. We conduct independent research and draw on the latest technology to develop new insights and recommendations. Our rigorous analysis identifies risks, unveils opportunities, and informs smart strategies. We focus our efforts on influential and emerging economies where the future of sustainability will be determined.

Change It

We use our research to influence government policies, business strategies, and civil society action. We test projects with communities, companies, and government agencies to build a strong evidence base. Then, we work with partners to deliver change on the ground that alleviates poverty and strengthens society. We hold ourselves accountable to ensure our outcomes will be bold and enduring.

Scale It

We don't think small. Once tested, we work with partners to adopt and expand our efforts regionally and globally. We engage with decision-makers to carry out our ideas and elevate our impact. We measure success through government and business actions that improve people's lives and sustain a healthy environment.



8. References

- Aapaoja, Aki, and Harri Haapasalo. 2014. "A Framework for Stakeholder Identification and Classification in Construction Projects." *Open Journal of Business and Management*.
- Business Today. 2015. "Housing for All scheme gets govt nod: All you need to know." *Business Today*, September 15.
- CRISIL. 2018. *Home Run: Chart Book on Pradhan Mantri Awas Yojana - Urban*. CRISIL.
- Deloitte. 2016. "Mainstreaming Affordable Housing in India Moving towards Housing for All by 2022." August. <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/public-sector/in-ps-affordable-housing-noexp.pdf>.
- GOI. 2017. *Working Group on Capacity Building, Urban Development Management. Twelfth Five Year Plan (2012 – 2017)*, GoI.
- Gupta, Noopur. July-2018. "The Challenges in "Affordable Housing" for Urban Poor in India – Deciphering the "Housing for All by 2022" - A Comprehensive Approach to Decrement Housing Shortage." *International Journal of Scientific & Engineering Research* 341-372.
- Johari, Aarefa. 2018. "Can Pradhan Mantri Awas Yojana Really Solve Urban India's Housing Crisis?" *Scroll.in*, October 8. <https://scroll.in/article/895036/can-pradhan-mantri-awas-yojana-really-solve-urban-indias-housing-crisis>.
- Kalpana Gopalan, Madalasa Venkataraman. 2015. "Affordable housing: Policy and practice in India." *IIMB Management Review* 27 129-140.
- Kher, Devika. 2017. *A Chronicle of India's Urban Rental Housing Policy*. May 29. <https://nationalinterest.in/journey-till-the-new-draft-of-urban-rental-housing-policy-6fa6bf60bff9>.
- Kloosterman, Vivian. n.d. *Continuing Professional Development*. Accessed May 17, 2019. <https://continuingprofessionaldevelopment.org/stakeholder-mapping-key-to-successful-project-management/>.
- KPMG. 2014. "Decoding Housing for All by 2022."
- KPMG. 2017. "Indian Real Estate: Unfolding the new era of growth."
- Ministry of Housing and Urban Affairs. 2018. "Guidelines for Integrated Capacity Building." Ministry of Housing and Urban Affairs. January. http://amrut.gov.in/writereaddata/oms/integrated_3jan2018.pdf.
- MIT. n.d. *Orangi Pilot Project*. <http://web.mit.edu/urbanupgrading/upgrading/case-examples/ce-PK-ora.html>.
- MoHUA. 2019. "About Pradhan Mantri Awas Yojana- Urban." <http://mohua.gov.in/cms/about-pmay.php>.
- MoHUA. 2016. "Housing for All (Urban) - Scheme Guidelines." Ministry of Housing and Urban Affairs. March. http://mohua.gov.in/upload/uploadfiles/files/18HFA_guidelines_March2016-English.pdf.
- MoHUA. 2016. "Housing for All (Urban) - Scheme Guidelines." http://mohua.gov.in/upload/uploadfiles/files/18HFA_guidelines_March2016-English.pdf.
- MoHUA. 2015. *National Urban Rental Housing Policy*. MoHUA. http://mohua.gov.in/upload/uploadfiles/files/National_Urban_Rental_Housing_Policy_Draft_2015.pdf.
- MoHUA. 2017. "PMAY (U) Manual for District Level Functionaries."

MoHUA. 2017. "PPP Models for Affordable Housing." <http://mohua.gov.in/upload/uploadfiles/files/PPP%20Models%20for%20Affordable%20Housing.pdf>.

MoHUA. 2019. Pradhan Mantri Awas Yojana. June 18. <http://mohua.gov.in/cms/pradhan-mantri-awas-yojana.php>.

MoHUA. 2019. "Progress PMAY." [http://mohua.gov.in/upload/uploadfiles/files/13\(4\).pdf](http://mohua.gov.in/upload/uploadfiles/files/13(4).pdf).

MoHUPA. n.d. Best Practices: Habitat Planning and Design for Urban Poor. MoHUPA.

MoHUPA. 2012. Report of Technical Group on Urban Housing Shortage (TG-12) (2012-2017). New Delhi: Ministry of Housing and Urban Poverty Alleviation.

PTI. 2017. "Housing shortage in urban areas down at 10 million units: Government." The Economic Times, November 15.

RBI. January 2018. "Affordable Housing in India." RBI Bulletin.

Scroll. 2019. "The Modi Years: How Close is India to Affordable Housing for All?" Scroll, February 20.

Sharma, Nidhi. 2019. "Govt decides to put urban rental policy on the back burner." The Economic Times, January 3.

Shiva, Shruti. 2015. "Seven lessons from a successful slum upgrading project." Citiscope. February 27. <http://archive.citiscope.org/story/2015/seven-lessons-successful-slum-upgrading-project>.

Sousa, Jorge. 2012. "Stakeholder Analysis for Housing." In International Encyclopedia of Housing and Home, 28-33.

Thompson, Rachel. n.d. "What Is Stakeholder Management? Planning Your Stakeholder Communications." Mindtools. Accessed May 18, 2019. <http://www.mindtools.com>.

Times, The Economic. 2015. Government extends basic services to urban poor programme till March 2017 . New Delhi, 05 06.

Tiwari, Piyush, and Jyoti Rao. April 2016. "Housing Markets and Housing Policies in India." ADBI Working Paper Series (Asian Development Bank Institute).

Twelfth Five Year Plan. n.d. Report of Technical Group on Housing (TG-12). Twelfth Five Year Plan.

UNDP. 2008. "Capacity Assessment Methodology: User Guide." UNDP. November. <https://www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/undp-capacity-assessment-methodology/UNDP%20Capacity%20Assessment%20Users%20Guide.pdf>.

Woetzel, Jonathan, Sangeeth Ram, Jan Mischke, Nicklas Garemo, and and Shirish Sankhe. 2014. A Blueprint for Addressing the Global Affordable Housing Challenge. McKinsey Global Institute.

WRI. n.d. Mexico's New Urban Paradigm. <https://www.wri.org/our-work/top-outcome-mexico%E2%80%99s-new-urban-paradigm>.

9. Appendices

ANNEXURE 1: RAPID SURVEY ADMINISTERED TO GOVERNMENT OFFICIALS (END USERS)

1. Name _____

2. Designation _____

3. Organization _____

4. City _____

5. E-mail _____

6. Phone number _____

7. What are your expectations from a capacity building program in the space of Affordable Housing?

☐ Improve existing understanding & skills

☐ Learn about new subjects, concepts & approaches

☐ Meet and interact with peers and experts

☐ Experience new technologies, systems, and sites

☐ Others – please specify: _____

8. What subject areas would you be interested in? Please select up to 3.

☐ Administration & management

☐ Contracting & procurement

☐ Policy & research

☐ Design & physical planning

☐ Monitoring & evaluation techniques

☐ Others – please specify: _____

☐ Economics & finance

☐ Engineering, technology, & construction

☐ Beneficiary & community engagement

☐ Development & improvement models

☐ Physical infrastructure development

9. Based on your choices above, please specify up to 3 key sub-topics (each) you would be most interested in learning about _____

10. What kind of capacity building format would you prefer?

Please indicate your interest on a scale of 1-5, with 1 being least preferred, and 5 being most preferred.

Exposure visits & study tours	Multi-day technical training programs
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
One-day sensitization workshops	E-learning & webinars
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Guides / handbooks / manuals	Hybrid, self-learning modules / programs
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5

Others – please specify: _____

11. What kind of learning model do you prefer?

Please indicate your interest on a scale of 1-5, with 1 being least preferred, and 5 being most preferred.

Case studies & best practices	Technological demonstrations
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Decision-making guidelines	Interactions with experts & vendors
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Step-by-step simplifying of theoretical concepts	Group exercises & hands-on activities
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Site visits & tours	Panel discussions & classroom lectures
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5
Informative movies & videos	Self-help reference materials and guides
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5

Others – please specify: _____

12. If you have any other suggestions or insights, please offer them below

ANNEXURE 2: ONLINE SURVEY QUESTIONS

1. Which of the following stakeholders do you represent? (Select any one)
 - ☐ Civil Society ☐ Government/ Public Sector ☐ Private Sector ☐ Academia ☐ End User - Beneficiary
 - ☐ Other (Please specify) _____
2. Are you directly involved/ play a role in any of the following areas related to Affordable Housing? \ (Select all that apply and briefly explain your role)
 - ☐ Policy Formulation: Setting guidance frameworks and principles for affordable housing in India at Central, State or local levels
Your role: _____
 - ☐ Project Preparation: Translation of policy to projects such as land identification, seeking requisite permissions and ensuring provision of basic infrastructure services
Your role: _____
 - ☐ Innovation, Design and Construction Technology: Incorporating innovations in resource use, ensuring culture and climate sensitive designs and site appropriate construction technology
Your role: _____
 - ☐ Finance Provision: Enabling or accessing systems for fund flow and credit streams
Your role: _____
 - ☐ Construction and Execution: Implementation of actual project on site, leveraging labor, material, equipment or finances
Your role: _____
 - ☐ Operations and Maintenance: Ensuring the project post construction is functioning and in good condition through provision of various services
Your role: _____
 - ☐ End User (Beneficiary) related: Occupier of the constructed building or person enlisting the beneficiaries or conducting social audits
Your role: _____
 - ☐ Others (Please specify): _____
3. Which of the following areas according to you are primarily responsible for affordable housing implementation challenges? (Please select all that apply and explain the challenge through brief comments)
 - ☐ Policy Formulation
Challenge: _____
 - ☐ Project Preparation
Challenge: _____
 - ☐ Innovation, Design and Construction Technology
Challenge: _____
 - ☐ Finance Provision
Challenge: _____
 - ☐ Construction and Execution
Challenge: _____
 - ☐ Operations and Maintenance
Challenge: _____
 - ☐ End User (Beneficiary) related:
Challenge: _____
 - ☐ Others (Please specify): _____
4. Based on the challenges selected above, what would you recommend for a capacity building program targeted at government officers? _____
5. Do you have any other comments for a capacity building program of this nature? _____
6. Basic contact information (optional)
Name: _____
Designation: _____
Department & Organization: _____
City: _____
Email: _____

ANNEXURE 3: ONLINE SURVEY RESPONDENTS LIST

Out of a total of 49 respondents to the survey, 33 opted to share their personal details as indicated in the table below:

S.NO.	DESIGNATION	ORGANIZATION	CITY
1	Professor	Ahmedabad University	Ahmedabad
2	Program Associate	Safetipin	Gurgaon
3	Urban designer and Architect	ARCOP	New Delhi
4	Business Development Associate	Strawcture Eco Private Limited	Delhi
5	Town planning specialist	Tamil Nadu Slum Clearance Board	Chennai
6	Consultant	Deviransh Enterprise	Ahmedabad
7	Asst Manager/ Architect	KPMG	Delhi
8	GIS Specialist	Tamil Nadu Slum Clearance Board	Tirunelveli
9	Young Professional	Commissionerate of Rural Development, Govt of Gujarat	Ahmedabad
10	Assistant Professor	Himgiri Zee University, Dehradun	Dehradun
11	Professor	Faculty of Planning, CEPT University	Ahmedabad
12	Associate Director	-	Gurgaon
13	Senior Associate	Ernst & Young	New Delhi
14	Principal Consultant	SHiFT: Studio for Habitat Futures	New Delhi
15	Former Commissioner	Delhi Development Authority	At present PUNE
16	Director	High Range Rural Development Society India	Chalakudy
17	Associate Consultant	-	Mumbai
18	Independent consultant in public policy	Self employed	Gurgaon
19	Chairman	Salmon Leap Associates India	Bangalore
20	Director	Administrative Staff College of India	Hyderabad
21	Director- Research and consultancy	RICS SBE	Noida
22	Senior Advisor	Kochi smart city project of GIZ	Kochi
23	Urban planner	Pune Metropolitan Regional Development Authority	Pune
24	Assistant Director (Planning)	Delhi Development Authority	Delhi
25	Senior Fellow	HSMI, HUDCO	Delhi
26	CEO	FHRS	Rajkot
27	Managing Director	Maxcon Town Planning & Development Pvt. Ltd.	Chennai
28	Research Assistant	IRADe	Delhi
29	Activity Lead Urban	Habitat Forum (INHAF)	Ahmedabad
30	Architect Urban Planner	Shivir Setia Architects	Jaipur
31	Architect - Urban Planner	Consultancy Cell, Faculty of Architecture, AKTU	Lucknow
32	Founder and Consultant	TMM Nirmiti Kendra, a unit of Tilothu Mahila Mandal	Tilothu
33	Consultant	Ashok & Associates	Noida

ANNEXURE 4: KEY PERSON INTERVIEW QUESTIONS

1. GOVERNMENT

- Which housing schemes have you been associated with?
- What challenges did you face during the implementation of those schemes? At what juncture of the implementation process did these challenges arise?
- Could those challenges be addressed through specific capacity building and training sessions? What kind of capacity building would you suggest to improve implementation of present housing programs?
- How do current capacity building programs address these challenges? How effective do you think they are?

2. PRIVATE SECTOR

- What is your view on private sector participation in government housing programs? Would you be interested in collaborating on their implementation?
- What are the biggest challenges to implementation of these schemes? What are the challenges pertaining to your participation in these schemes?
- Can these challenges be addressed by capacity building of government officials? What kind of capacity building would you suggest?

3. CIVIL SOCIETY / ACADEMIA

- How would you describe your involvement in government affordable housing programs? How has the experience been?
- What are the biggest challenges to implementation of affordable housing programs?
- Can these challenges be addressed by capacity building of government officials? What kind of capacity building would you suggest?

4. BENEFICIARY

- What kind of house / tenure do you currently possess? Would you be interested in getting a pucca affordable house? Why / why not?
- Are you aware of government housing schemes? Have you tried availing of them? How has the experience been?
- Have you lived in or visited a government sponsored affordable housing unit? What do you think of it?
- How can these schemes be improved and made more attractive? What kind of information would you like to pass on to the government?

ANNEXURE 5: LIST OF KEY PERSONS INTERVIEWED

S.NO.	NAME AND DESIGNATION	ORGANIZATION
1	Er. Ranjit Sinha, Founder and Consultant	Tilothu Mahila Mandal
2	Jacob Bay, Housing Project Consultant	Habitat Forum (INHAF)
3	Amruta Bhate, Project Consultant	PMAY Gujarat
4	Hemant Rastogi, Project Engineer	Allahabad Development Authority
5	Mr. R. Srinivas, Head, Metropolitan & Union Territories Division	Town And Country Planning Organization
6	Prof. E.F.N.Ribeiro, Former Chief Planner and Director SPA	DDA/ Town And Country Planning Organization
7	Mr. Nilesh Rajadhyaksha, Project Coordinator, MPD 2041	National Institute of Urban Affairs
8	Mr. S.J. Vijay, Founder	Salmon Leap Associates India
9	Prof. Sejal Patel, Housing Chair, Faculty of Planning	CEPT University
10	Ruchita Gupta, Assistant Professor	School of Planning and Architecture
11	Savita Patel, Domestic help	Beneficiary
12	Usha Kumari, Domestic help	Beneficiary



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