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# BRICK BY BRICK

*Moving towards 'Housing for All'*

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Section 1

# HOW CLOSE ARE WE TO 'HOUSING FOR ALL'

## Housing shortage: A critical issue of urban India

In 2011, an initial assessment for housing shortfall was released by the then government which identified the need of 18.6 million houses in urban areas. This shortfall was however need based i.e. the estimated shortfall was drawn basis certain normative standards of adequate housing. These estimates did not establish the willingness of a household to buy a house. The latest Ministry of Housing and Urban Affair's demand based assessment, which is based on an assessment of the number of houses which the households will choose to occupy given their preferences and ability to pay (at given prices), has pegged the affordable housing shortfall at approximately 10 million houses. Urban India comprises of 34% of the country's population and is witnessing unprecedented rates of migration leading to rapid urbanisation.

Indian cities contribute significantly to the country's Gross Domestic Product (GDP). Top 10 cities alone contribute over 50% of the total GDP. This phenomenon alone makes cities nodal points of growth. Due to the economic growth, urban centres are continuously battling migration from rural and semi-rural areas, falling short of resources to cater to the burgeoning population.

Economic opportunities in urban centres thus fuel migration which is one of the major contributors to the staggering population growth in Indian cities.

| Year | Total population(million) | Urban population(million) | No. of towns and UAs |
|---|---|---|---|
| 1951 | 361 | 62 | 2843 |
| 1961 | 439 | 79 | 2365 |
| 1971 | 548 | 109 | 2590 |
| 1981 | 683 | 159 | 3378 |
| 1991 | 846 | 217 | 3768 |
| 2001 | 1029 | 286 | 5161 |
| 2011 | 1211 | 377 | 7933 |

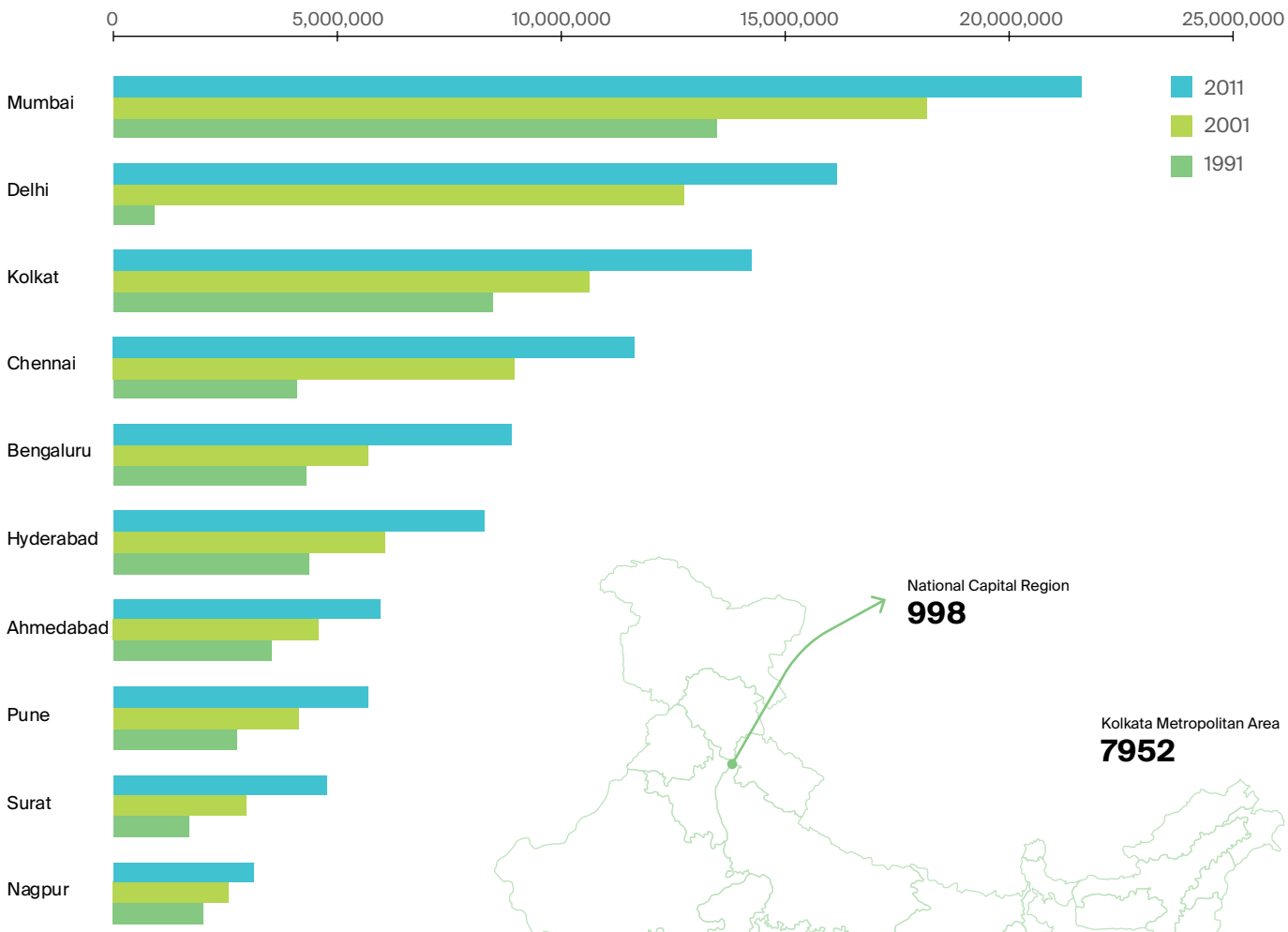
*Source: Census of India and Asian Development Bank report*

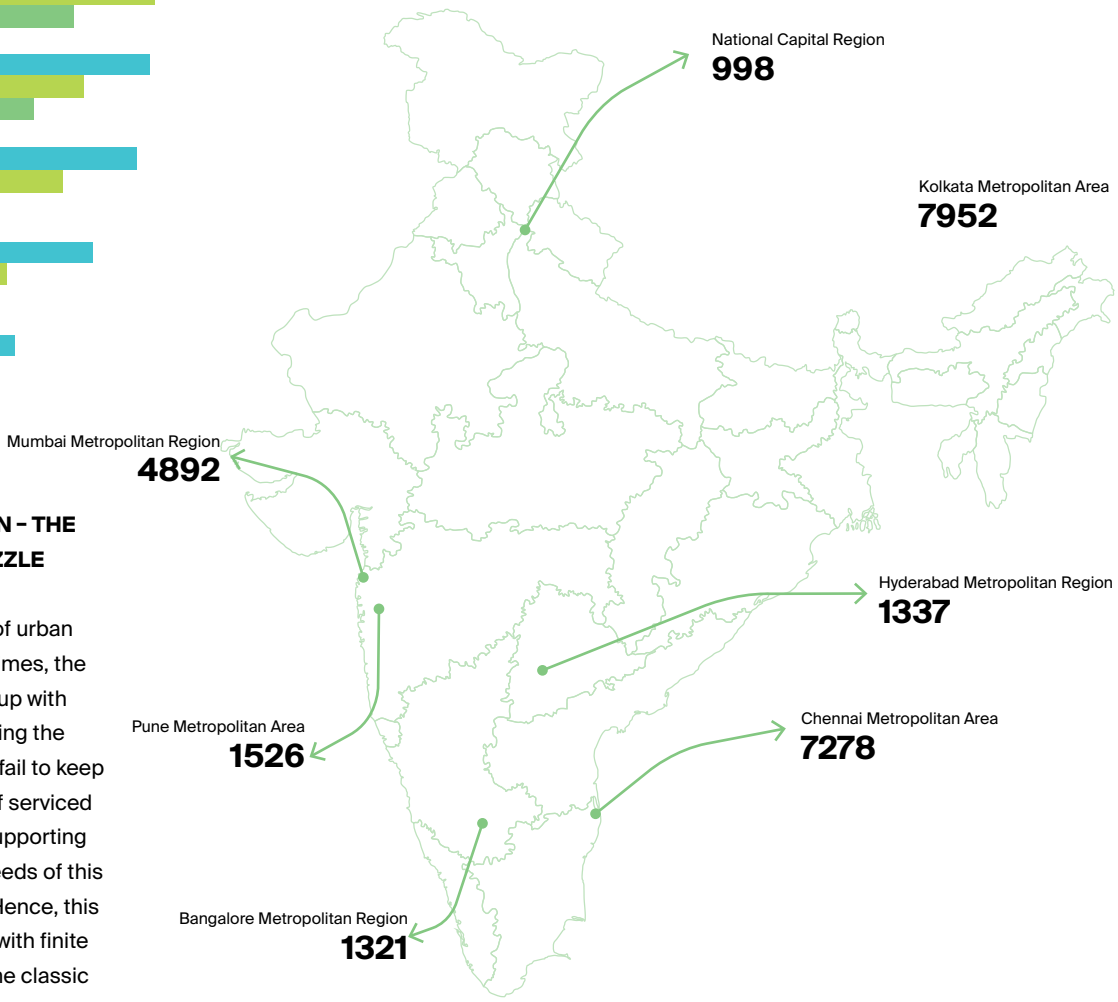
The process of urbanisation has led to nearly doubling of the number of towns and urban agglomerations as compared to those present during the 1990s. Over 62 million people migrated from villages to urban areas between 2001 and 2011. In Maharashtra alone 13.5 million people migrated from rural to urban areas during this period. The following states and cities of these states have attracted bulk of this urban migration:

| State | Major urban centers | Total rural to urban migration between 2001-2011 (million) |
|---|---|---|
| Maharashtra | Mumbai, Pune, Nagpur | 13.5 |
| Gujarat | Ahmedabad, Surat, Vadodara | 7.3 |
| Uttar Pradesh | Ghaziabad, Kanpur, Lucknow | 7.2 |
| Andhra Pradesh (Before Telengana Division) | Hyderabad, Visakhapatnam | 5.9 |
| West Bengal | Kolkata, Howrah, Asansol, Durgapur | 5.7 |
| Tamil Nadu | Chennai, Coimbatore, Madurai | 5.5 |
| Kerala | Thiruvantapuram, Kochi | 4.4 |
| Karnataka | Bangalore, Mysore | 4.2 |
| Madhya Pradesh | Bhopal, Indore, Gwalior | 4.2 |
| National Capital Territory (NCT) of Delhi | Delhi, Gurgaon, Noida | 4.1 |

*Source: 2011 Census*

**URBAN POPULATION GROWTH**

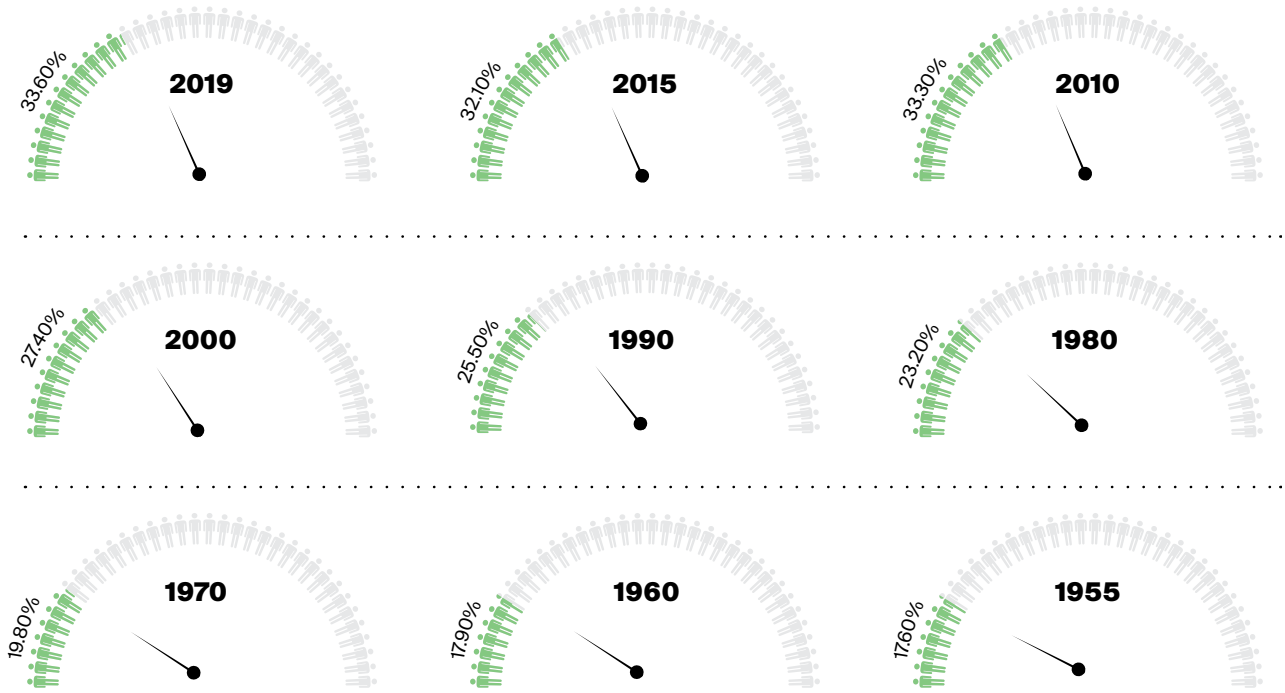



## LAND AND POPULATION – THE CLASSIC HOUSING PUZZLE

With this sharp increase of urban population in the recent times, the cities are unable to cope up with the requirements of housing the migrant population. They fail to keep pace to deliver quantity of serviced urban land that is fit for supporting the affordable housing needs of this incremental population. Hence, this ever-growing population with finite amount of land created the classic housing puzzle.

**URBAN POPULATION**




# Housing policies in post-independence India to meet housing shortage

Housing policies have come a long way post independence. The initial two decades saw a lack of focus on housing with the priority being capital goods and infrastructure sectors. This was based on an argument that the higher the growth rate of production of capital goods the ultimate growth rate of the economy would be higher. It was also expected to enhance the rate of savings outflow from the households.

The next two and half decades from 1965 to 1990 saw the setting up of the housing finance backbone of the country. It was only in the 1980's that housing finance came into the picture in a meaningful way. This period saw the setup of HDFC, LIC and HUDCO. Post-liberalization era (1991–2000) witnessed the change of role of the government from a provider to an enabler. During this era urban housing issues were recognised for the first time and a separate policy and implementation approach was created that was different from the rural area.

The Economic Globalization era (post 2000) is distinctly characterised by its focus on urban centres. A major urban-focused capital investment and urban reform programme called Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched in 2005. This programme took several drastic steps towards addressing housing shortage by modifying present land related laws, reforming the property tax system and repealing the Urban Land Ceiling and Regulation Act (ULCRA), which were major hindrances behind the slow-paced housing market.

In 2011, Rajiv Awas Yojna (RAY) was launched which was a focussed policy to address urban housing problems. Slum redevelopment was a major focal point of this policy, while affordable housing in participation with private players, increase of FSI/FAR as incentive to developers, single window clearance, master plan amendments, improving access to credit, addressing lease and tenure rights, etc. had its fair share in this policy framework.

In May 2015, RAY was rolled over into the 'Housing for All (HFA) by 2022' policy. This marked a major shift in focus towards actual on ground delivery of houses.

**FIRST 14 YEARS**

i) No uniform Housing Policy

ii) Refugee crisis

iii) Housing for industrial workers

**NEXT 25 YEARS**

i) Setting up of Housing Finance Institutions viz. HUDCO (1970), HDFC (1977) and NHB (1988)

ii) Ineffective Housing Policies

**POST LIBERALISATION PERIOD**

i) Role of govt. changed from provider to enabler

ii) Urban housing issues were recognised for the first time

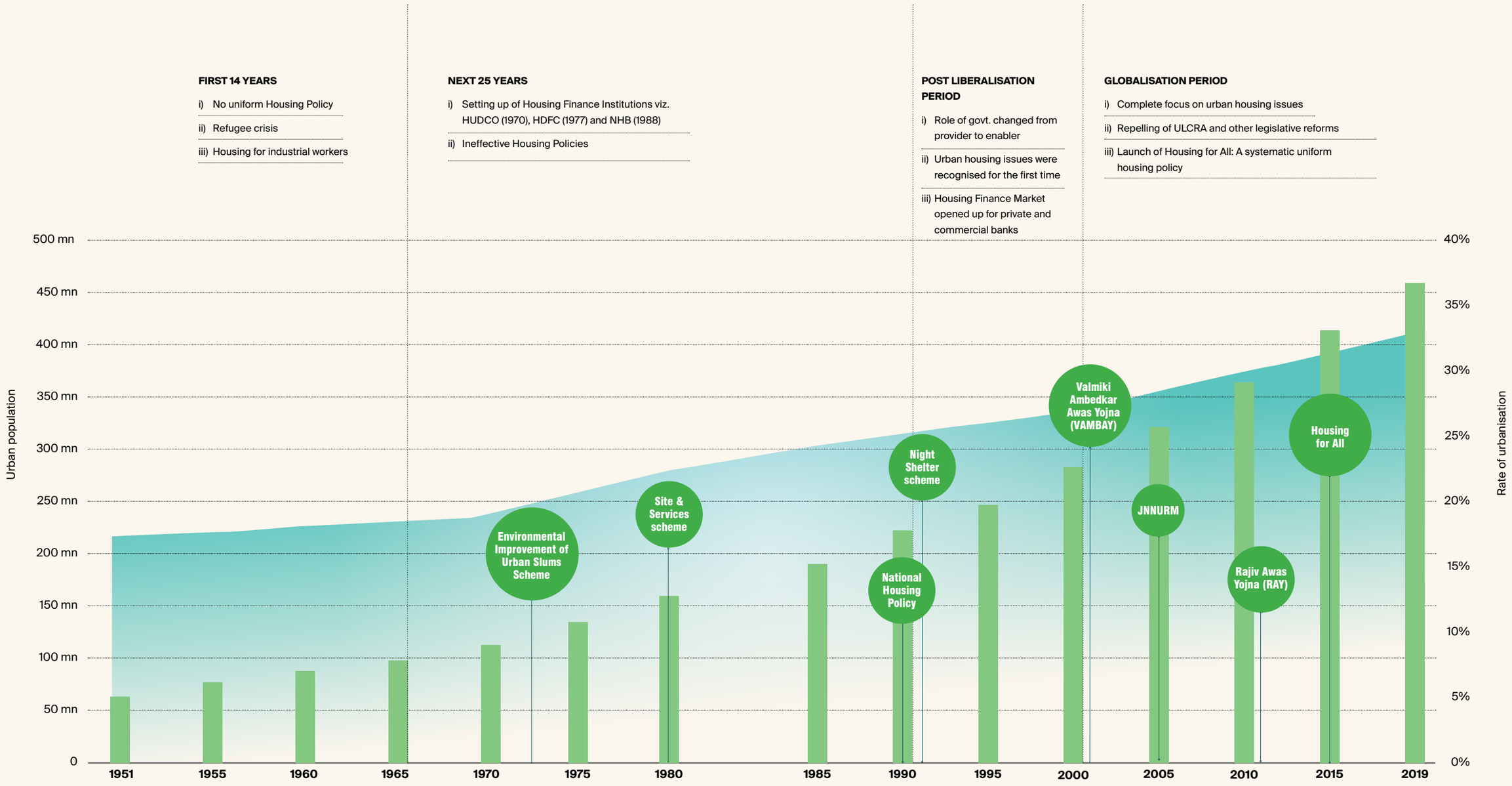
iii) Housing Finance Market opened up for private and commercial banks

**GLOBALISATION PERIOD**

i) Complete focus on urban housing issues

ii) Repelling of ULCRA and other legislative reforms

iii) Launch of Housing for All: A systematic uniform housing policy



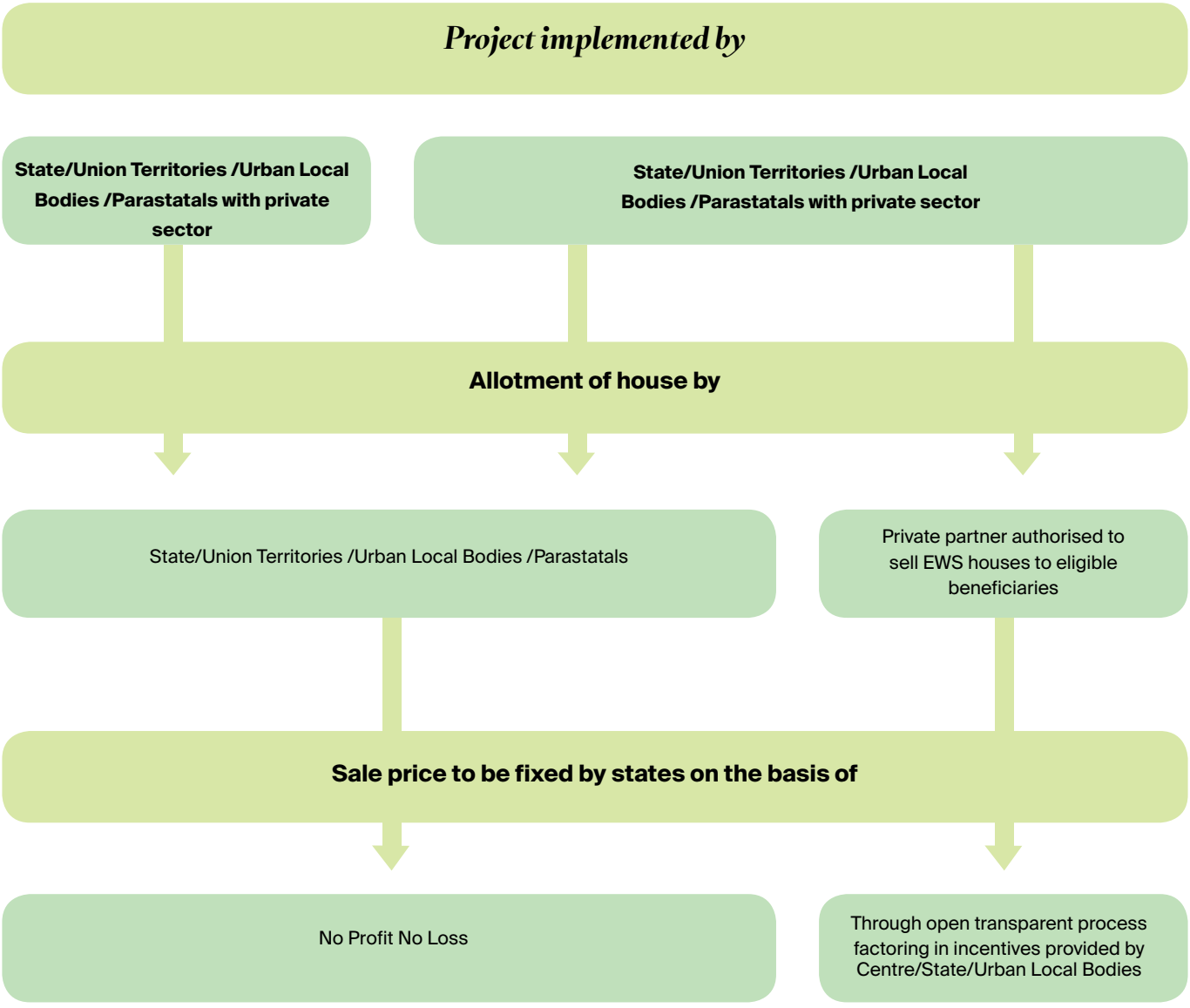
# Housing for all

'Housing for All by 2022' came into effect from June 2015 with a mission period up to March 2022. The mission is being implemented through four verticals giving options to beneficiaries, Urban Local Bodies (ULB) and state governments. These four verticals are as below:


*Source: PMAY (urban) document by HUDCO*

In Situ slum redevelopment has focused on unlocking the potential of land as a resource for both government owned and privately held land. On an average ₹0.1 million/house is being provided as a Central Govt grant managed by States and Union Territories with some amount of flexibility. It is being implemented in partnership with private bodies; while giving extra FSI/TDR/FAR as incentive to developers where it is required. It serves both the purpose of de-notifying slums while rehabilitating slum dwellers in formal housing and using the remaining land for commercial purpose.

Under Affordable Housing in partnership the government is providing financial assistance to Economically Weaker Section (EWS) houses being built with different partnerships by States/Union Territories/Cities. Central assistance at the rate of ₹0.15 million per EWS house is granted for all EWS houses in such projects. Also, states and cities provide for other types of incentives like land at affordable cost, stamp duty exemption, etc. For projects with at least 250 houses, 35% of which are for EWS category are eligible under this scheme. The sale prices are fixed either on the project basis or city basis using the following principles

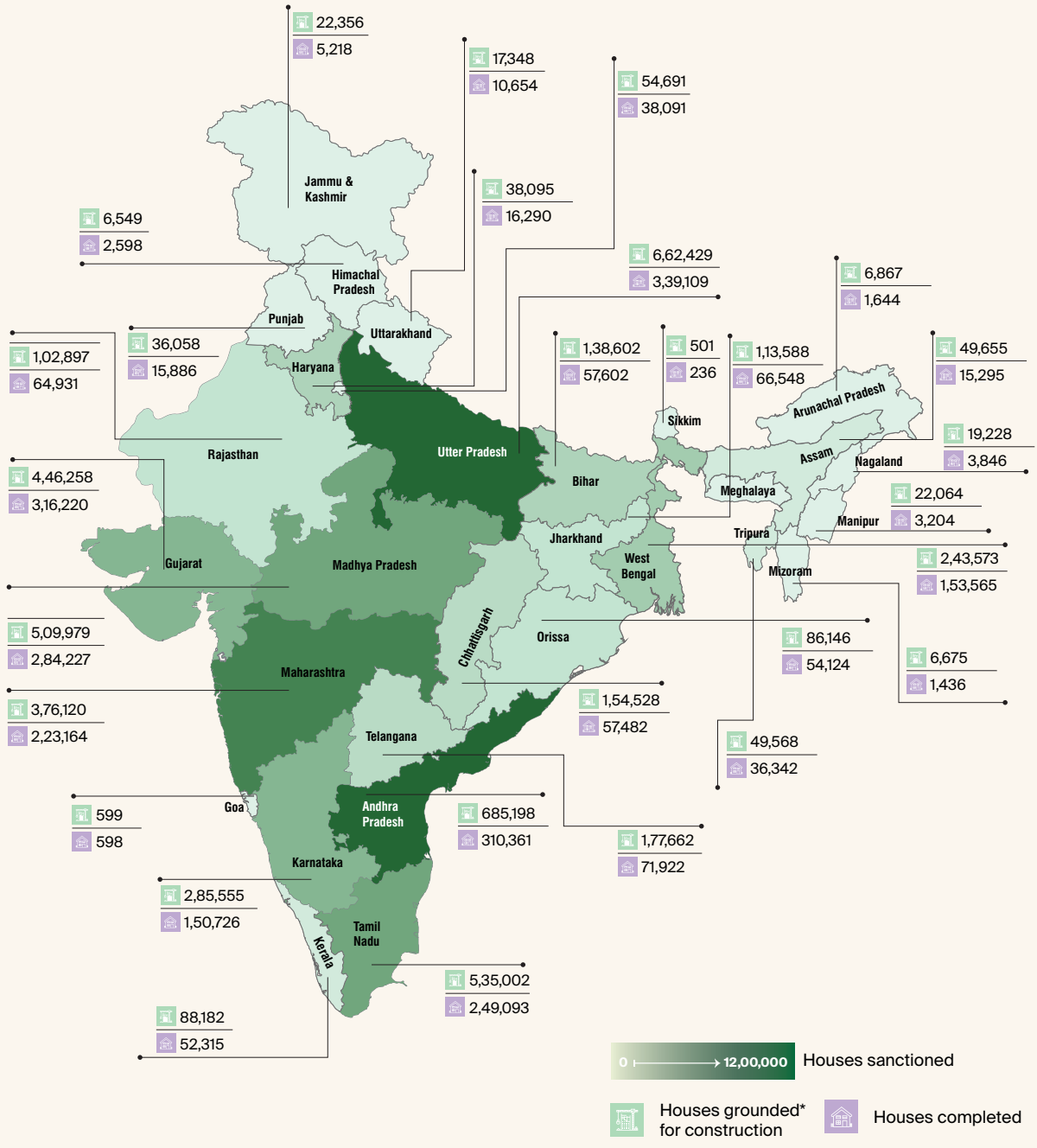



Beneficiary-led construction or enhancement provides ₹0.15 million of Central Govt assistance to individual families belonging to the EWS category to either construct a new house or enhance their existing house. Beneficiaries desirous of availing this assistance approach the Urban local bodies (ULB) with adequate documentation regarding availability of land owned by them. State governments have the flexibility of providing their own assistance under this scheme. Further, the last installment of Central Government assistance i.e. ₹30,000 is disbursed after the completion of the house.

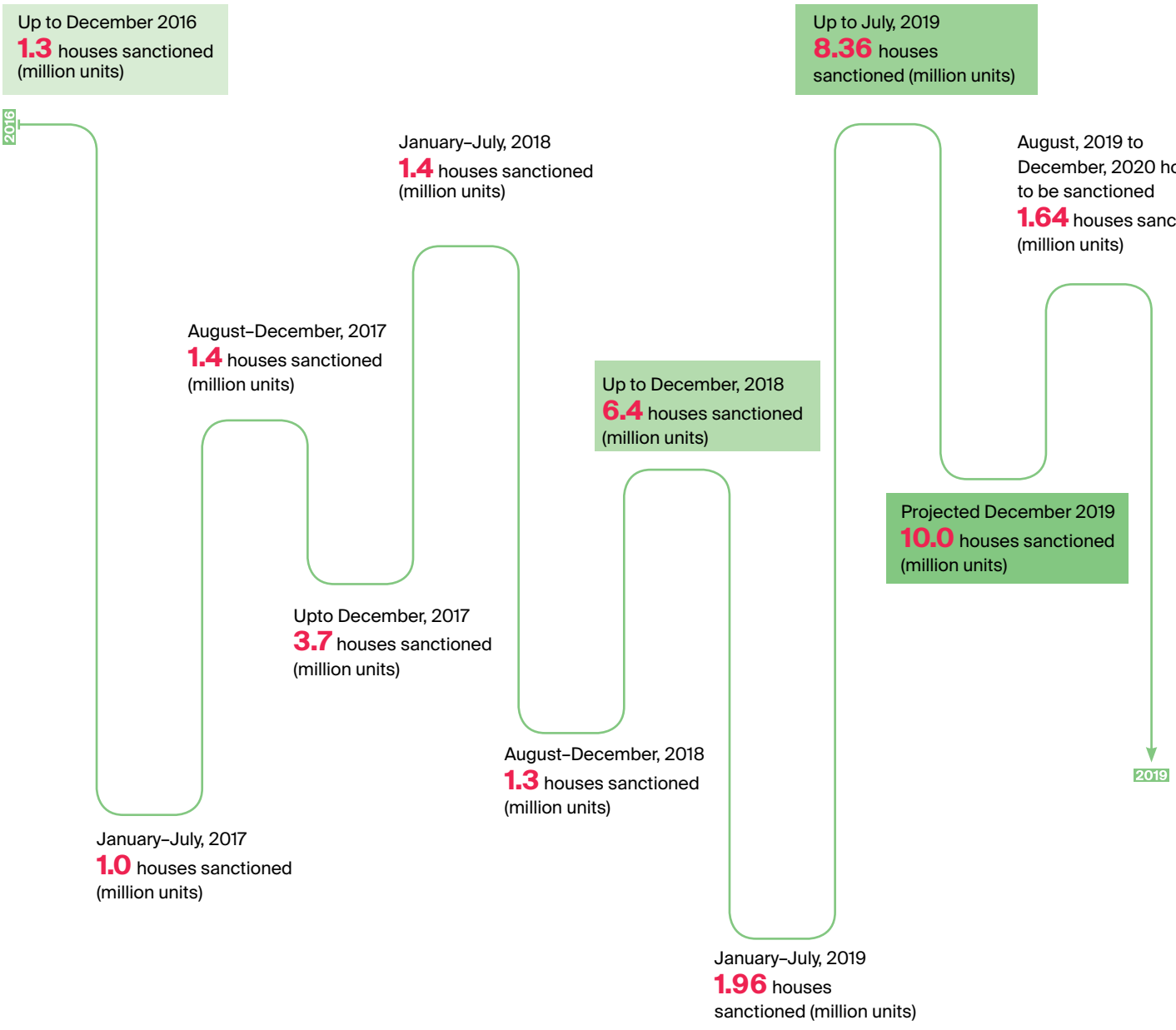
Credit Linked Subsidy enables urban poor to take a loan from banks, HFCs, NBFCs or such institutions for their housing need with an interest subsidy at the rate of 6.5 % for a tenure of 15 years or during tenure of loan, whichever is lower.

# Progress so far

As of July 2019, 8.36 million houses have been sanctioned. Of which 2.6 million have been completed and 4.9 million are under development. Given the past trend, additional 1.64 million houses are likely to be sanctioned by December 2019, leaving a narrow window of 27 months for completion. The construction for most of the houses sanctioned is likely to reach a near completion stage (if not completed) by end of 2022. A monumental achievement by all standards.




*Source: Ministry Of Housing Affairs*




# Future Outlook

With a clear visibility on the target of 10 million houses being achieved, the focus of future missions should be on addressing the fundamental supply side challenges, to prevent the resurgence of the same problem in the future. It would also be critical to reduce the reliance on subsidies. With the current success of 'Housing for All', existence of the affordable housing market is well established in India. Future programmes will have to focus on ironing out various issues in sub-markets comprising of leasing markets, sale markets, development markets, project finance and Housing Finance markets. This will facilitate development of a self-reliant and well-functioning affordable housing industry.

Section 2

# CREATION OF AFFORDABLE HOUSING MARKETPLACE

The real estate sector has been suffering from a slowdown for quite some time now. The depressed market condition has impacted property sales and corresponding prices too. Amidst slowdown in the marketplace, affordable housing is one of the segments which is attracting attention of all stakeholders, viz. developers, financing companies, investors, policy makers as well as end customers, primarily due to the opportunity the segment presents on account of large unmet demand.


AFFORDABLE HOUSING
Housing Finance Market
Sale and Purchase Market
Leasing Market
Development Market
Construction Industry
Project Finance

**By the year 2030 more than 40% of the Indian population will live in urban India as against the current figure of 34%. This will create a demand for 25 million additional affordable units.**

## Opportunities in affordable housing business

The current estimate of housing shortage in urban areas is around 10 million units. Most of the housing shortage lies in the EWS and LIG Segment. Huge shortage in urban housing has created tremendous opportunities for affordable housing in urban India.

The government has taken steps like the " Housing for All" initiative and housing shortage envisaged to be addressed through the PMAY-Urban (PMAY-U) scheme. The government has started providing subsidy to homebuyers to stimulate demand in the marketplace. This move of the government has successfully created enough traction in the market. Under PMAY-Urban scheme, 80,96,758 houses got sanctioned till May 2019. The corresponding sanctioned subsidy amounts to ₹1302930 million. In fact, the government has already released ₹515500 million in the form of subsidy.

## Subsidy is not going to be enough

While the government has fixed the target to complete the shortage of 10 million houses by the year 2022. Considering an average subsidy per unit at ₹0.15 million a total of ₹1.5 trillion subsidy is required to be disbursed. Till date the government has released around ₹0.5 Trillion towards subsidy. Therefore, Government needs to release additional ₹ 1.00 trillion to bridge the prevailing gap. Government has made a budgetary provision of 0.48 trillion in the current budget.

Demand for affordable housing will continue to grow driven by the rapid urbanisation and unbridged need-demand gap. By the year 2030 more than 40% of the Indian population will live in urban India as against current figure of 34%. This will create a demand for 25 million additional affordable units. To address the huge demand, a subsidy-based approach may not be enough for maintaining sustained growth in the affordable housing segment.

## Creation of affordable housing marketplace would be critical

Considering the budgetary and other constraints of the government, it is best left to market forces to address the demand-supply mismatch. A sustainable business model is essential to capture the emerging opportunities in the affordable segment.

## Sub-constituents of affordable housing marketplace

A well functioning affordable housing market place comprises of the following symbiotic marketplaces

**Space occupancy market –** market where home occupants interact with home owners to lease houses

**Housing sale purchase market -** comprising of home sellers, buyers, and intermediaries involved in sale, purchase of houses

**Home development market –** comprising of land owners, property developers engaged in housing development

**Home construction marketplace –** comprising of construction companies, material suppliers, and labour

**The government needs to release an additional ₹1.00 trillion to bridge the prevailing gap.**

**Project finance market place -** comprising of developers, Private Equity players, banks, NBFCs and other financial institutions

**Home finance market place -** comprising of banks, Home Finance companies and NBFCs, funding individuals for home purchase

For the successful development of the affordable housing market, which is less dependent on subsidy, all of the above sub-markets need to develop viable business models. Such a well-functioning marketplace in which all stakeholders can play their role, is the need of the hour.

## Winds of change

Changes are already visible in the home purchase and sale market, home and project finance market as well as home occupation and leasing market. New products in the affordable housing segment with facilities offered in normal housing projects have come into the marketplace. Customers have started getting affordable housing with well designed lifestyle facilities at a price unthinkable of a few years ago. Finance, that was a primary challenge for the end-users of affordable housing, has also become more forthcoming, especially for the lower income/ informal segment, which form bulk of the demand.

Low-income customers who are keen to own/improve their homes and can afford to do so if there is supply at market-feasible prices have started getting finance from a new group of 'Affordable Housing Finance' companies (AHFCs), which are now addressing the hitherto problem of the financing need of low income / informal segment customers. More than 100 NBFCs / Micro Finance companies have developed home loan products to cater to the need of the market. Even financial institutions and HFCs have picked up affordable housing projects and offer project finance at competitve rates and terms to the developers. PE funds / HNIs have also started investing in the development of affordable housing projects mainly in urban and semi-urban areas.

Even new products like co-living, shared space, rental housing etc are beginning to show green shoots of development. These products suit the requirement of new age customers in terms of facilities offered, as well as the price to be paid for the purpose. These customers have started looking at their housing need at an affordable price not merely from owning a house anymore, but from the point of view of service. Many developers and operators in cities across India have started offering such affordable products.

## Change momentum would have to be sustained

The market, however needs to sustain these trends on a long term basis. Though the market is large enough to attract the attention of stakeholders in the marketplace, it is unlikely to get momentum unless an environment is created wherein all stakeholders like developers, Housing Finance Companies, PE funds and other investors feel encouraged to take part by putting their energies together and conduct business profitably. There is already enough traction from the customers for affordable products. Whilst many constraints affecting affordable housing growth are gradually being mitigated, issues relating to land availability, rising construction costs and other regulatory issues require more attention from the government to encourage private stakeholders to take part in the unique initiative.

Section 3

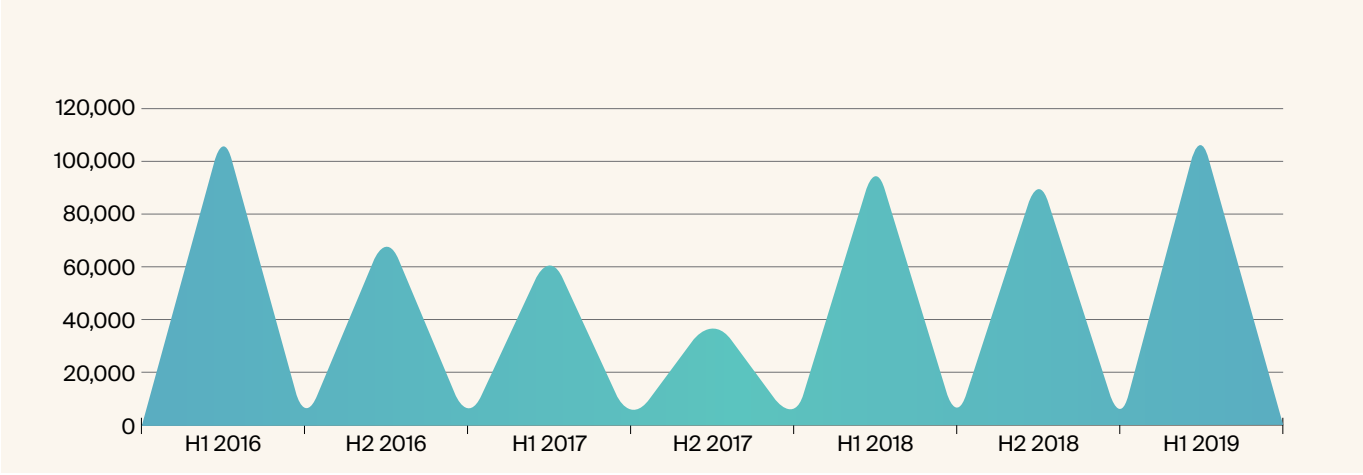
# PROJECT DEVELOPMENT MARKET

India's urban housing shortage is being primarily driven by the EWS and LIG categories. However, majority of real estate private players have traditionally focussed on premium housing owing to its higher returns. This has led to a build-up of huge unsold inventory that has brought the residential real estate market to a near standstill.

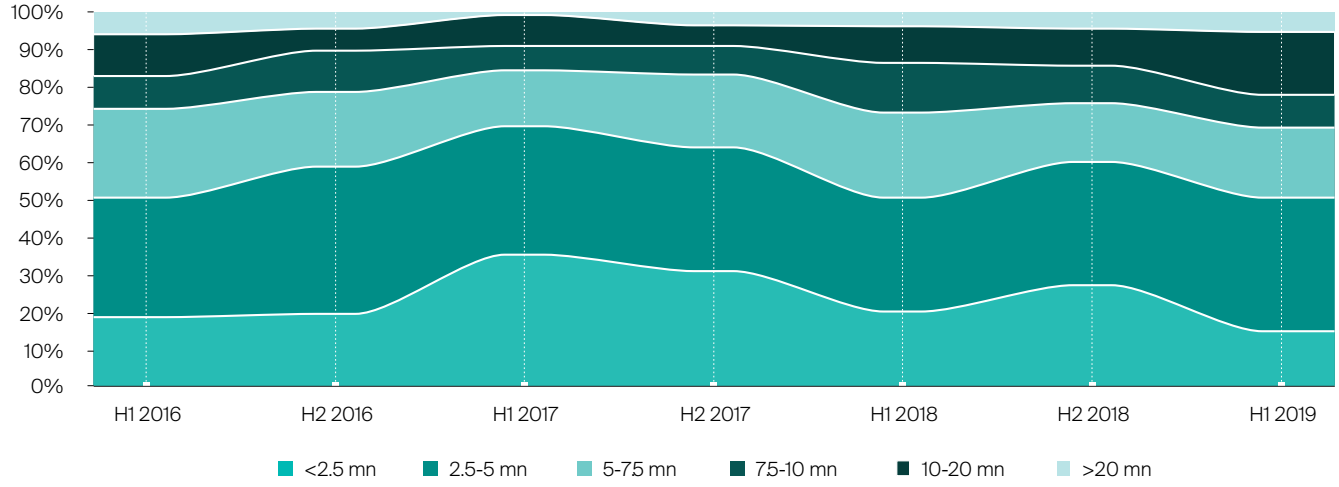
The impetus to the residential market has come due to the government's focussed attention on the affordable housing segment. Over the last few years, the government has announced a series of measures to bring a fresh lease of life into this segment of the market.

As a supply-side intervention, the government launched the '**Affordable Housing in Partnership**' under the Pradhan Mantri Awas Yojana (Urban) Programme. Under this mission, the government provides financial assistance at the rate of ₹0.15 million per EWS house being built under these different partnerships.[1]

**LAUNCHED UNITS (TOP EIGHT CITIES)**



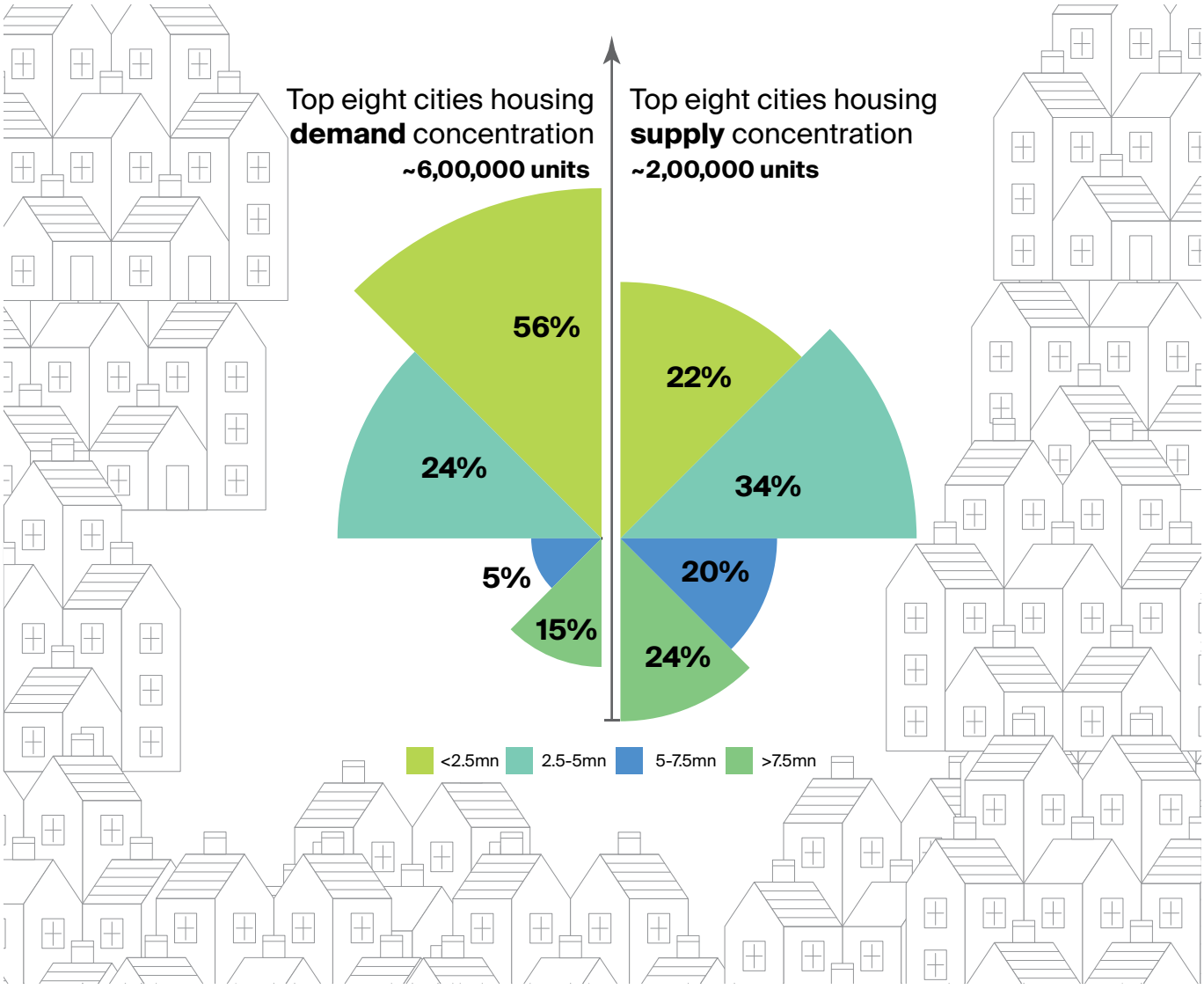

**TICKET SIZE SPLIT OF LAUNCHED UNITS (2016 to H1 2019)**




Post the launch of the policy, right-sizing and right-pricing of new residential products and improving homebuyer sentiment have led to a steady increase in supply. As per Knight Frank Research, the residential market in the top eight cities in India – Mumbai, NCR, Bangalore, Pune, Chennai, Hyderabad, Kolkata and Ahmedabad has witnessed an infusion of 0.57 million units since 2016. Also given the push in the affordable housing sector, the private sector players have participated in the development of the affordable housing programme, which is visible from the latest set of numbers that indicate a consistently high share of less than ₹2.5 mn ticket size since 2016.

[1] An affordable housing project can be a mix of houses for different categories (EWS, LIG, and HIG, etc.) but it will be eligible for Central Assistance, if at least 35 per cent of the houses in the project are for EWS category and a single project has at least 250 houses.

# Demand-supply mismatch




However, the supply intervention is a far cry from the actual demand of the sector. India's urban housing shortage is being primarily driven by the EWS and LIG categories. An analysis of the demand supply shows, that on an average, nearly 0.6 million homes are required every year in the top eight cities versus a supply of 0.2 million units per year. Notwithstanding the demand, there is a huge supply gap for urban housing and more so in the EWS and LIG category, i.e. houses with ticket size less than ₹2.5 million. Whereas the demand in the EWS and LIG category is around 0.34 million homes, the supply in the category is only 44,000 homes.

Given the sheer gap in demand-supply, one would assume that every private player would want to venture into this sector. However, high land costs, archaic building bye laws, stringent licensing norms, delay in project approvals and unfavourable banking policies make affordable housing projects uneconomical for private developers.

# Shortcoming leading to shortage of affordable housing

## Unavailability of urban land for affordable housing

High population density in urban areas leads to a huge demand for urban land, thus increasing the cost of land. Unavailability of affordable land is one of the biggest barriers to creation of affordable housing in cities.

The government has several urban land banks which are currently unutilised. Such land can be allocated for affordable housing projects and the creation of affordable housing can be driven via a PPP model.

## Infrastructure

Considering the high cost of land, as well as better returns from other asset classes, it is unviable for developers to undertake affordable housing projects in prime areas.

Even if affordable housing is feasible on the outskirts of the city, there is no civic infrastructure to support the same. Infrastructure such as roads, appropriate connectivity to places of work, creation of enough employment opportunities in the same locality, etc. first need to be created for people to move to these new residential locations.

## Difficulty to access formal financing for purchase of affordable housing units or home improvement in slums

Majority of the customers of the EWS and LIG housing are employed in the informal sector. These individuals are mainly paid in cash and have no documentation to prove their credit worthiness. Banks as well as Housing Finance Companies find it difficult to provide credit to customers who are employed in the informal segment. Also, commercial banks and other traditional Housing Finance Companies do not serve low-income groups, whose income may vary periodically, or is below the viable threshold to ensure repayment.

## Unavailability of affordable rental housing supply

Most of the urban poor being engaged in the informal sector are faced with income uncertainties due to the absence of job security. Moreover, they need to be mobile in order to respond to employment opportunities and therefore, cannot afford to be rooted geographically to a single city. Given these characteristics of low-income households, rental housing can be a viable housing option for them. However, in India, government policies for provision of housing for urban poor have traditionally focussed on ownership-based models without adequate thought on the unwillingness to buy. Rental housing has not been explored adequately to address the challenge of low-income housing.

## Usage of Floor Area Ratio as a revenue tool

In most of the urban areas, the basic free permissible Floor Area Ratio (FAR) / Floor Space Index (FSI) available for development is very low. Additional FAR/FSI ratio above the free permissible limit needs to be purchased, which is available at a significantly higher cost. Although in some cases, free additional FAR is provided to developers for undertaking affordable housing projects, in most cases, given the ground coverage norms and the design constraints, the developer must significantly increase the height of the building; which in turns increases the cost of construction and maintenance in the long term.

## Lengthy statutory clearance and approval processes

For a typical housing project in a city, a project needs at least 30 regulatory approvals including no objection certificates (NOCs) from various departments. These approvals generally take anywhere between six months to even more than a year in certain cases. This not only delays a project but also increases the cost of the property by 10%–20%.

# Changing business model and select case studies

Affordable housing and conventional residential real estate are two very different business models and simply reapplying mid-income / luxury housing business model into affordable housing, cannot solve the problem. Traditional developers often lack the expertise and wherewithal to successfully execute an affordable housing project.

**The key differentiating parameter between the two are as follows:**

| | **Affordable housing project** | **Residential real estate (mid-income / luxury housing)** |
|---|---|---|
| **Scale of the project** | **Large scale development required** | **Standalone developments** |
| Sensitivity to construction cost | Very high | Low |
| Sensitivity to project delays | High | Medium |
| End user demand | High | Low |
| Velocity of sales | High | Low |
| Dependence on housing finance | High | Medium |
| Marketing cost | Low | High |
| Profit margins | Low | High |

After the launch of the affordable housing policy, the industry responded by making houses more affordable. A few select developers have changed their business model wherein they have relooked at the site selection methodology, the pricing, size and configuration of residential units in their planned developments. The government must further support this move with proactive initiatives to develop peripheral locations with the required connectivity and infrastructure.

One can expect affordable housing projects to come up within metro cities and in urban agglomerations. However, an affordable housing project is a volume driven business. The major challenge for the government will be to facilitate availability of suitable land parcels, and that too at a competitive price, for the project to be financially viable. This would have to be followed up by putting systems in place that will help developers in getting approvals and financing in an efficient manner.

Notwithstanding the several bottlenecks in the sector, we believe that the focus on affordable housing is a structural change and the supply side response to this focus area implies that it is going to be a sustained theme going forward. A few case studies of successful affordable housing projects are discussed.

# RAY NAGAR BY PANDHE GROUP

## Project Elevation

## Unit Plan


**1 BHK UNIT PLAN**

Total carpet area: 27.94 sq m / 300 sq ft

### Project location

Solapur , Maharashtra

### Project overview

30000 units - Units per floor: 8 apartments per floor

### Project positioning

EWS Housing - Target income group of ₹0.3 million per annum and below

### Launch and scheduled completion

Launched in January 2018; completion expected in Dec 2022

### Project success factors

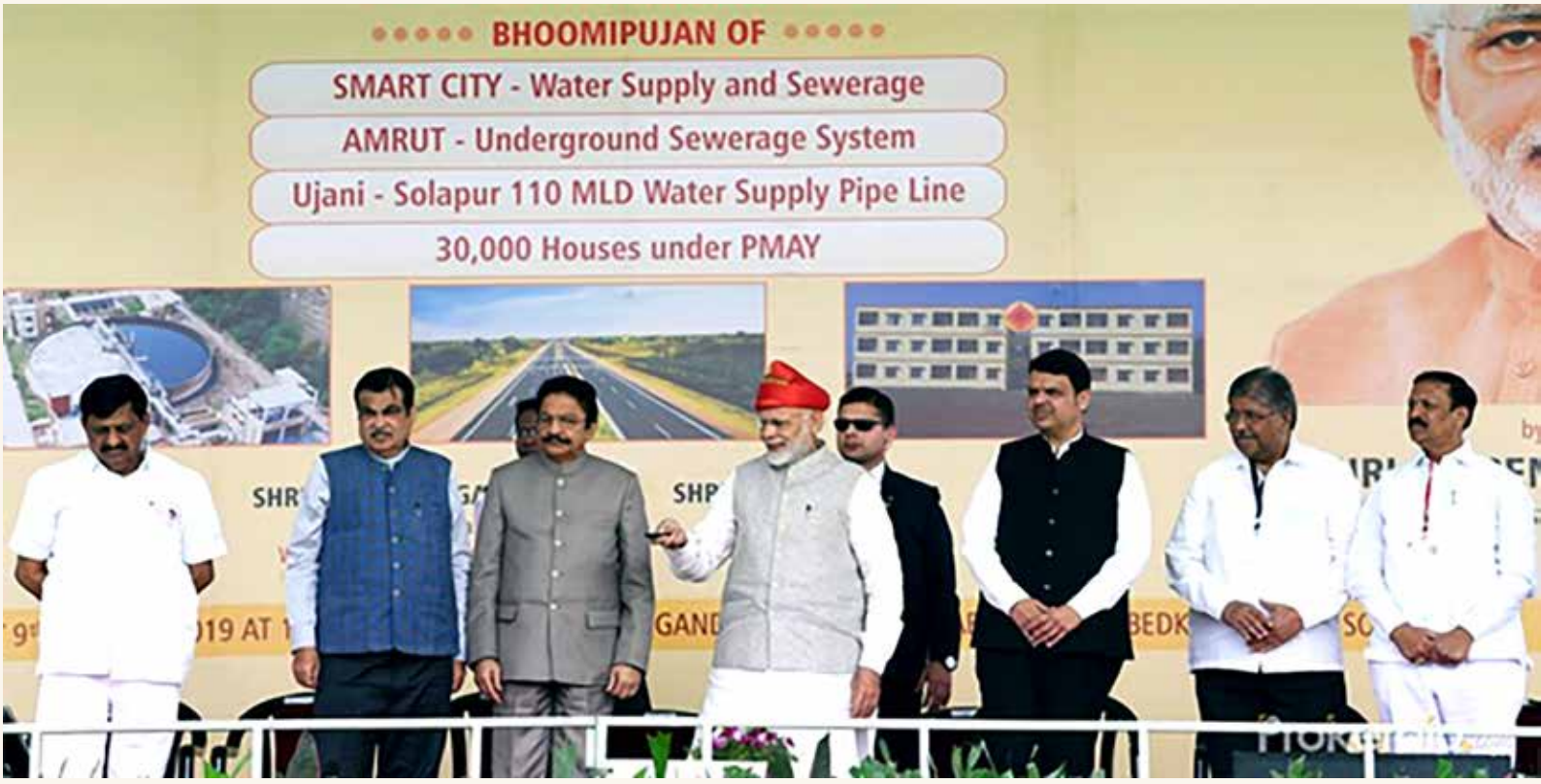
- Cost per house – ₹0.5 million
- Subsidy per house – ₹0.25 million (₹0.15 million by Centre + ₹0. 1 million by the state)
- Beneficiary Contribution – ₹0.25 million (₹75,000 self contribution + ₹175,000 housing loan)
- Cost of Infrastructure per unit – ₹100,000 (by the state under various schemes)
- Ownership will be given to the 'woman of the house'
- Tie-up with housing finance companies to facilitate housing loans
- Design optimisation
- Modular construction with 'shop floors' operation model
- Total cost optimisation

### Project amenities

Rainwater harvesting, cement concrete road, storm water drains, water supply, water treatment plant, elevated stroge reservoir / ground storage reservoir, sewerage treatment plant, external electrification, street lights, solid waste bins, etc.

| Type (BHK) | Carpet area (sq ft) | Ticket size (₹ mn) |
|---|---|---|
| 1 BHK | 300 | 0.5 |

# RAY NAGAR BY PANDHE GROUP




Jan 2019 - Bhoomipujan of 30,000 houses by
**Hon. Prime Minister of India Shri Narendra Modi**

**World's largest affordable housing project**

38,000 members already registered

Land for 30,000 houses already acquired with 25% customer contribution

and balance paid by the developer

## ROLE OF GOVERNMENT

Prime Minister Awas Yojana **(PMAY)** – Affordable Housing in Partnership

Subsidy of **0.25 million** per house

Include projects **outside city limits** under PMAY

Permission to construct affordable houses in **green zone buffer**.

Slashed stamp duty to ₹**1,000** for affordable house registration.

**50%** waiver in moujni fees.

**80IBA** benefit to developer

Fast track **approvals**

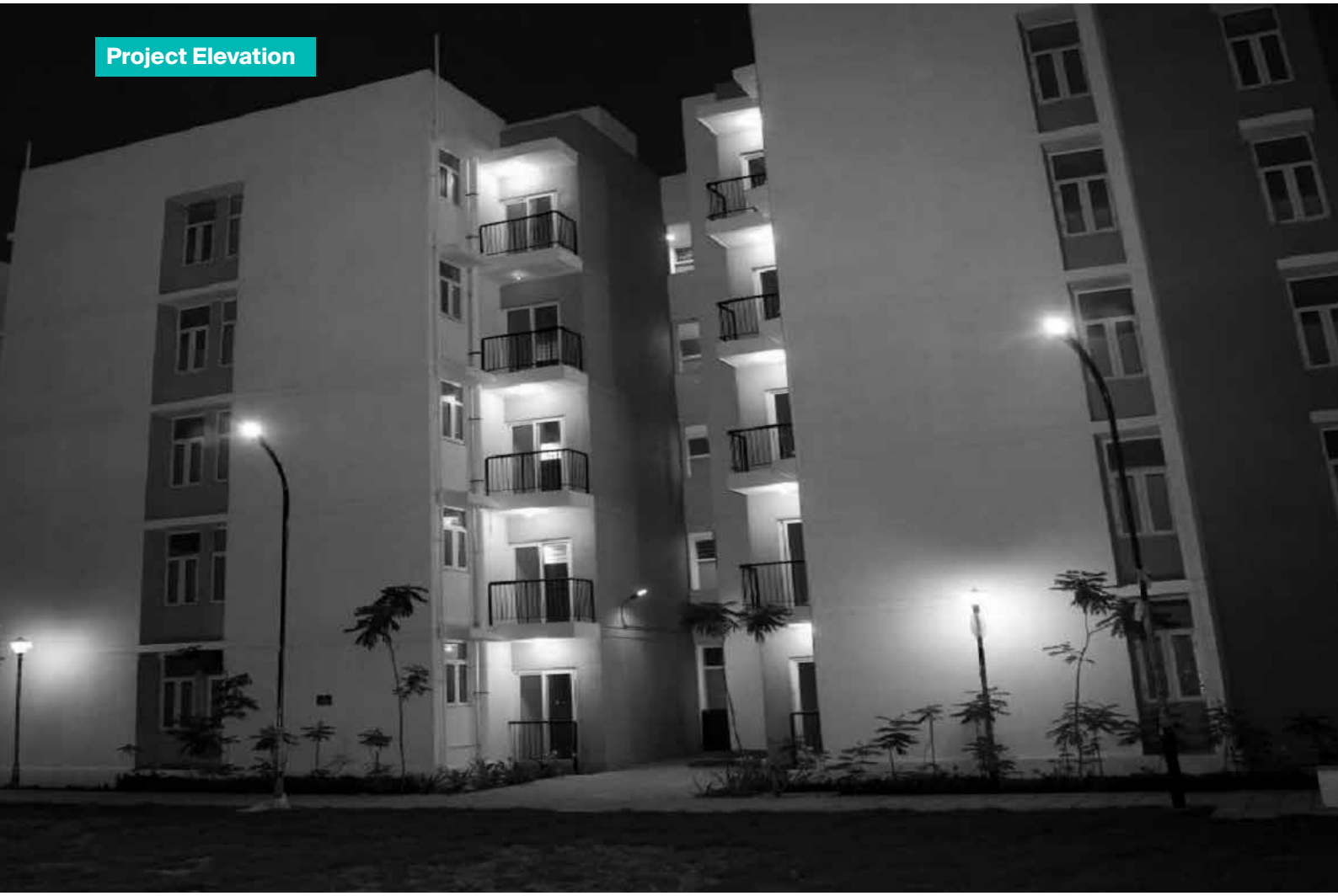
Funding for **infrastructure** under various government schemes

## GUIDING PRINCIPLES

- ❒ Cost of house to ensure EMI = RENT
- ❒ Identification of the project land which will support the concept of 'Walk to work' i.e. the project is located close to MIDCs
- ❒ Employment generation – small scale industries setup in the township itself
- ❒ Build a sustainable township with social and civic infrastructure

# HAPPINEST BY MAHINDRA LIFESPACES

## Project Elevation



## Unit Plan

1 RK

1 BHK

2 BHK

### Project location
Palghar, MMR

### Project overview
The project of G+4 floors is spread across an area of over 20 acres, of which Phase-1 comprises 859 units on an area of 8.35 acres

### Units per floor
10 apartments per floor

### Project positioning
Income bracket of ₹0.3 million to ₹0.8 million per annum

### Launch and scheduled completion
Launched in February 2018; delivery starts from mid-2020 to 2021

### Project success factors

- ❒ Effective design for smaller units – reduced wall thickness for creating more space in apartments
- ❒ Innovative design philosophy – emphasis on space utilisation by giving more engaging points in the same space (like study area, pooja, balcony, etc.)
- ❒ Innovative marketing – arranged kiosks in Borivali during launch and sold more than 750/800 apartments

### Project amenities
Clubhouse with air-conditioned gymnasium, 24*7 power back-up in common areas, amphitheater for small functions, play area for toddlers, badminton court, walking track and netted cricket pitch, convenience shopping, security guards, STP plant, etc.

Intercommunication system from the lobby to each apartment, CCTV facility

| Type (BHK) | Carpet area (sq ft) | Launched units | Absorbed units | Ticket size range (₹ mn) |
|---|---|---|---|---|
| 1 RK | 250–350 | 115 | 115 | 0.8–1.2 |
| 1 BHK | 400–450 | 580 | 506 | 1.5–1.9 |
| 2/2.5 BHK | 450–550 | 164 | 102 | 2.5–3.2 |

| Phase | Launch date | Launched units (as of March 2019) | Absorbed units (as of March 2019) | Launch BSP (₹/sq ft) on saleable area | Current BSP (₹/sq ft) on saleable area |
|---|---|---|---|---|---|
| 1 | 2018 | 859 | 723 | 2,875 | 3,220* |

**Base rate on saleable area | Additional development charges not included*

# SOLERA-2 BY SIGNATURE GLOBAL

## Project Elevation

## Unit Plan

1 BHK


2 BHK

### Project location
Sector 107, Gurugram

### Project overview
Four residential towers spread across an area of 3 acres (Solera 2) consisting of 448 apartments in G+14 floor configuration

### Project positioning
Affordable housing under the Haryana govt's Affordable Housing Policy-2013

### Launch and scheduled completion
Launched on July 2017; completion by december 2020

### Project success factors

- Government support – developed under PMAY, resulting in final ticket size being about 50 per cent less than prevalent market rates. Also, there is an increased trust in the government-backed project.
- Marketing excellence – sold by lottery system to applicants who exceeded by 2–3X the available inventory.
- Planning of projects – Signature is one of the biggest land aggregators and has emerged as a leading brand in the region.

### Project amenities
Landscaped garden, paved compounds, amphitheater, badminton court, Gated Community, provision for power and water back-up, exclusive children's play area

| Type (BHK) | Carpet area (sq ft) | Launched units* | Absorbed units | Ticket size range (₹ mn) |
|---|---|---|---|---|
| 1 BHK | 366 | 150 | 100 | 2.08 |
| 2 BHK | 634–659 | 200 | 100 | 2.80 |
| 3 BHK | 727 | 126 | 50 | 3.20 |

**Approximate based on interactions and market knowledge*

| Phase | Launch date | Launched units (as of March 2019) | Absorbed units (as of March 2019) | Launch BSP (₹/sq ft) on saleable area | Current BSP (₹/sq ft) on saleable area |
|---|---|---|---|---|---|
| NA | 2017 | 448 | 446 | 4,000 | 4,000 |

*Balcony price separately at ₹500/sq ft on carpet area*

# NEW HAVEN BOISAR II – TATA HOUSING

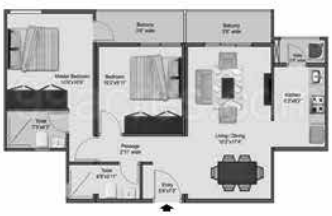
## Project Elevation

## Unit Plan

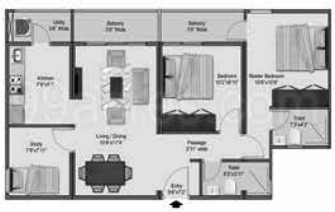
1 BHK

1.5 BHK

2 BHK



2.5 BHK



### Project location
Boisar, MMR

### Project overview
G+5 towers spread across an area of over 17 acres comprising 21 blocks and 940 units

### Units per floor
11 apartments per floor

### Project positioning
Affordable housing for homebuyers in the Western Suburbs of MMR

### Launch and scheduled completion
Launched In 2015; delivery starts from June 2019

### Project success factors

- Innovation in construction technology – constantly investing in R&D and testing new materials in Boisar and other projects
- Implementation of marketing techniques – Launched project in IPO model with SBI as the banking partner for collection of 6,500 applications for total project size of 1,300 apartments
- Appropriate planning of project to avail benefits under PMAY by designing 50 per cent of the apartments with a size of 60 sq m or less

### Project amenities
Landscaped garden, paved compounds, amphitheater, badminton court, Gated Community, provision for power and water back-up, exclusive children's play area

| Type (BHK) | Carpet area (sq ft) | Launched units* | Absorbed units | Ticket size range (₹ mn) |
|---|---|---|---|---|
| 1 BHK | 351 | 315 | 296 | 2.4 |
| 1.5 BHK | 430 | 505 | 377 | 3.1 |
| 2 BHK | 690 | 60 | 33 | 3.2 |
| 2.5 BHK | 725 | 60 | 32 | 5.0 |

**RERA*

| Phase | Launch date | Launched units (as of March 2019) | Absorbed units (as of March 2019) | Launch BSP (₹/sq ft) on saleable area | Current BSP (₹/sq ft) on saleable area |
|---|---|---|---|---|---|
| 1A | 2017 | 448 | 446 | < 3,000 | - |
| 1B | 2015 | 120 | 65 | 3,900 | 4,500 |

Section 4

# FINANCING FRAMEWORK FOR AFFORDABLE HOUSING

Affordable housing has got an unprecedented boost due to variety of policy level interventions by the government which was followed up with targeted incentives. However, the segment has been thriving on the back of subsidies. While subsidies are necessary to kick-start any paradigm shift in the structure of the industry and gear it towards affordable housing, eventually policies must be formulated such that a marketplace develops, and subsidies can be withdrawn gradually.

The government is hopeful that the targeted incentives would ensure adequate affordable housing supply to cater to the housing demand of the EWS, LIG and Middle-Income Group (MIG). However, the supply which has come over the past few years has come in the MIG segment. Moreover, even the supply is concentrated around the major metros and the impact of the schemes has not penetrated the smaller towns and districts. While demand is already established in this segment, a lot needs to be done to augment the supply and also augment the consumers ability to purchase the house. All these objectives can be achieved if we tweak or bring in changes in the financing landscape for both supply side and consumer side.

There are two major avenues in the affordable housing segment which are in dire need of finance:

### A. Developer (construction) finance

Developer finance can be in the form of debt or equity. Despite the push from the government, not many established developers have ventured in the EWS and LIG categories. They are not keen to venture into constructing homes for EWS and LIG because of the returns achievable in the comparatively higher margin smaller volume projects of the MIG and higher income segment. There are not many established developers active in the EWS and LIG space and the ones who are active find it very difficult to attract the required funding. Further, most of the developers who cater to EWS and LIG segments are small and do not have the requisite funds to finance such projects on their own.

### B. Financing home purchase

Home finance or home loans are always in the form of debt. Any equity used to finance the apartment purchase comes from the homebuyer's own funds, which can be their savings or borrowings from friends/family. For residential real estate there are large number of national banks and other financial institutions competing with each other to offer the competitive home loan rate to a customer, but not many of them are keen to lend to potential homebuyers from the EWS and LIG segments.

In this section, we delve into the avenues of financing the affordable housing projects both from the demand side and supply side, associated challenges and our recommendations for development of a marketplace.

Affordable housing can be financed by Private Equity (PE) funds, banks, Non-Banking Financial Companies (NBFCs), Housing Finance Companies (HFCs) and government subsidies. Most of these sources can be classified broadly into three categories – debt, equity and subsidy.

# 1 Debt

## a. Construction finance

Developers can raise construction finance from banks, PE, NBFCs and HFCs. This is generally in the form of loan or structured debt products.

Banks generally avoid lending to smaller real estate developers and prefer to lend to only Grade A developers in top cities. Hence, the construction finance space is dominated by NBFCs and HFCs. However, after the recent liquidity crisis in the NBFC sector, even NBFCs/HFCs are preferring to lend to only reputed developers or developers with strong balance sheets and avoid venturing into smaller cities. As a result, there is a massive shortage in the construction finance available now for the real estate industry.

In addition, the affordable housing projects for EWS and LIG generally feature far below in the financing list of these institutions. This crisis has exacerbated the problem of raising finance for them and as a result there is very little scope for requisite amount of supply to come in.

## b. Financing home purchase

Homebuyers can avail loans from banks and other financial institutions like NBFCs/HFCs to finance their purchase. Banks by regulation need stronger paperwork and other income proofs to finance the purchase and charge a lower rate of interest on the home loans. However, only the Middle-Income Group (MIG) is generally eligible to borrow from banks, as people in the EWS and LIG segments are mostly employed in the informal sectors or are self-employed. Thus, people like taxi drivers, street vendors, hawkers, house helps, etc. who do not have proper proof or a regular source of income find it very difficult to avail home loans.

The large banks and financial institutions are not keen to cater to EWS and LIG as lending to EWS and LIG is a volume business. They are happy doing a lower number of comparatively larger ticket size loans of MIG and higher income segments in established markets which helps them keep their operating margins steady.

This gap is being catered to by several new-age companies, NBFCs and HFCs, who have developed proprietary methods of credit assessment. These companies are able to assess the credit worthiness of borrowers by going to their places of work and spending time with them for an entire day or for multiple days of the month and estimating their income. Even other kinds of income assessment methods such as neighbour's reference checks, locality profile, landlord's opinion, if the borrower is staying on lease, assessing the value of assets at home, income assessment of other working members of the household, etc. are also used. These complex credit evaluation methods add to the cost of operations, which is ultimately passed on to the borrower. Generally, such companies prefer to operate in large EWS and LIG clusters located inside or near major metros. The EWS and LIG segments in smaller cities/towns are left out by most of these companies as well.

If we look at Table 2, which represents the share of fresh disbursals of HFCs and Scheduled Commercial Banks (SCBs), it is evident that the share of EWS sector in new disbursals has come down each financial year from 21% in FY 2013 to just 10% in FY 2018. Moreover, even the share of LIG sector in fresh disbursals has also declined from 39% in FY 2013 to 33% in FY 2018. This is the segment where the demand lies and the need for funding is the highest; however, it is not being catered to despite the massive impetus given by the Government of India (GoI).

**Table 2: Home loan disbursals**

| Fresh disbursals of HFCs and SCBs | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 |
|---|---|---|---|---|---|---|
| Share of EWS sector | 21% | 16% | 14% | 12% | 14% | 10% |
| Share of LIG sector | 39% | 38% | 37% | 37% | 35% | 33% |
| Total disbursals (₹ mn) | 1,996,210 | 2,459,110 | 2,818,260 | 3,158,583 | 3,799,906 | 4,823,538 |

*Source: Knight Frank Research*

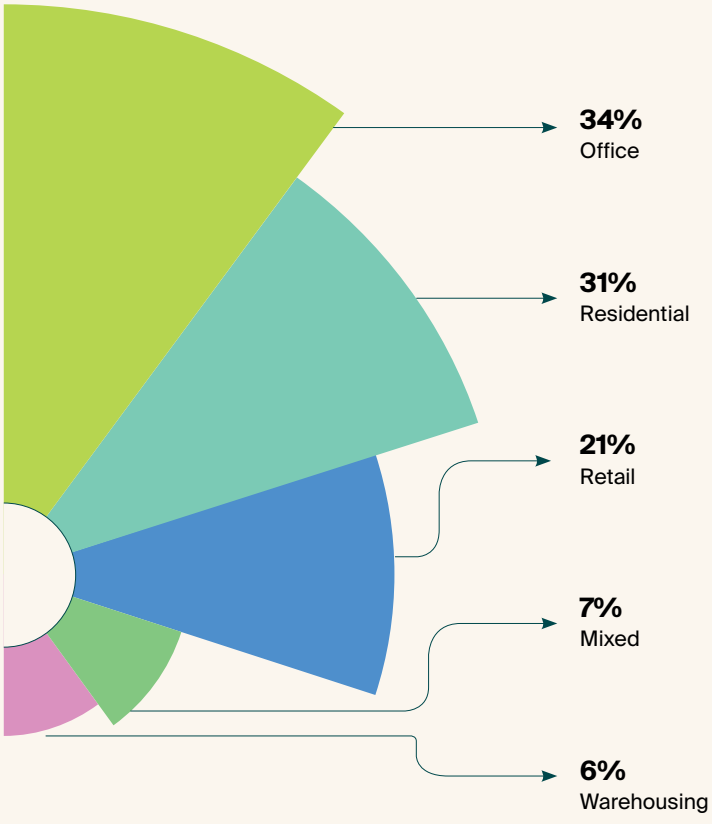
# 2 Equity

## a. Private equity (PE)

In the current global scenario, where markets are inundated with low cost funds and abundant liquidity, tapping private equity funds has been one of the most sought-after avenues for businesses. Many Indian businesses have benefitted from this flush of liquidity, and real estate has been one of them.

Since 2014, around USD 34 billion has been invested in Indian real estate across debt and equity. Commercial segments, which comprises office, retail and warehousing, has garnered majority share of this in the form of equity investments. The residential segment had 31% share and most of it was in the form of debt.

**PE investments into debt and equity since 2014**




*Source: Knight Frank Research, Venture intelligence*

**Table 1: PE trends in residential**

| | 2014 | 2015 | 2016 | 2017 | 2018 | H1 2019 |
|---|---|---|---|---|---|---|
| Investment into residential as a percentage of overall PE investments | 41% | 51% | 50% | 24% | 16% | 17% |
| Affordable housing (as a percentage of PE investment into residential) | - | 11% | 3% | 20% | 60% | 62% |

*Source: Knight Frank Research, Venture intelligence*

Moreover, due to the inherent slowdown in the residential demand, the share of residential segment in the overall investment pie has shrunk over the years.

While the share of the residential segment has come down since 2014, PE investments into affordable housing projects has grown over the years. The segment has witnessed investments of close to USD 2 billion since 2014.

However, a significant portion of this investment into affordable segments has gone into affordable projects for the mid-income segment and very little has been invested in affordable housing projects constructed for the EWS and LIG segments, where the actual housing shortfall is.

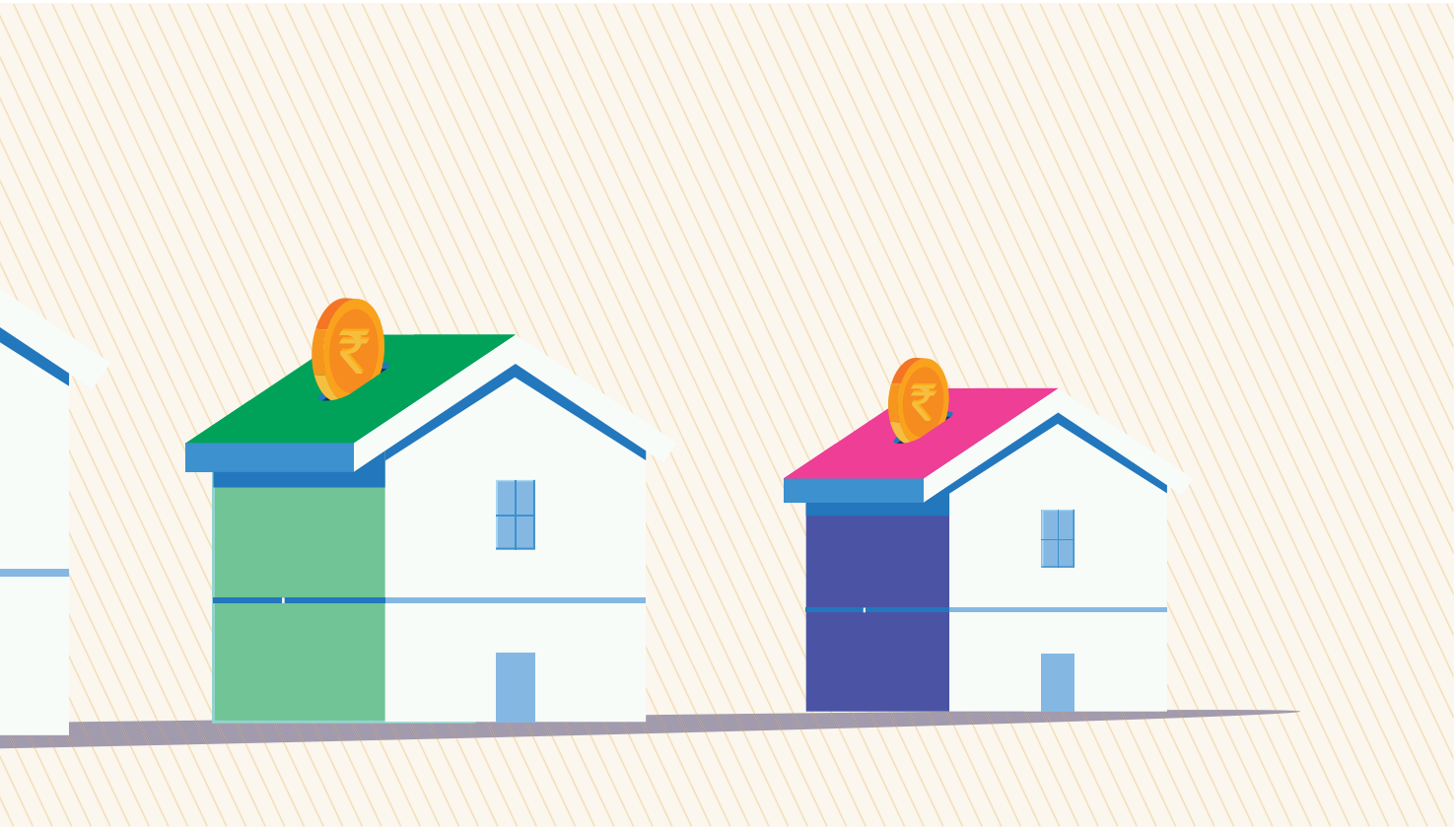
# 3 Subsidy from the government

### a. Subsidy to developer under PMAY 'Affordable Housing in Partnership'

Under Pradhan Mantri Awas Yojana (PMAY), the GoI partners with developers constructing homes for EWS and LIG segments and provides a subsidy of ₹0.15 million to the developer for each unit constructed. The state governments contribute an additional ₹0.1 million. This amount is released based on construction milestones. This serves as an additional incentive to the buyer to make the purchase and ensure funding to developers.

### b. Subsidy to homebuyer under CLSS

The homebuyers get an interest subsidy from GoI under the Credit Linked Subsidy Scheme (CLSS) of up to ₹0.267 million based on income criteria and the area of the apartment. As per the Ministry of Housing and Urban Poverty Alleviation (MHUPA), till March 2019, ₹ 70 billion has been disbursed as interest subsidy. This serves as additional incentive to the buyer to make the purchase.



# Challenges in the affordable housing finance universe

While the MIG segment and developers constructing affordable homes for the MIG segment have benefitted immensely from all the government policies and incentives targeted towards the affordable housing segment, it is the EWS and LIG segments which are yet to gain from it and there are several reasons for it:

### a. Perception issues hindering the flow of capital

Bankers, investors and institutions refrain from catering to EWS and LIG segments because they have the perception that – projects for LIG and EWS need a larger gestation time as the number of units to be constructed and sold is high, the demand is weak in that segment, homebuyers in those segments have low repayment ability, lenders need to put in efforts (cost) to scout for buyers, affordability is low amongst the EWS and LIG population and no established developers are active in that space apart from a few corporates.

However, on the contrary, companies who have successfully cracked this model are relishing it due to less competition in the space. The market for MIG is highly saturated while that of EWS and LIG are largely untouched.

The stakeholders who are successful in this space, both from the lenders and developers side, are largely regional or local and are finding it difficult to scale up as they are not getting the required capital to grow.

### b. High cost of capital

Due to the perceived high risk of lending to the EWS and LIG segments, institutions who cater to this segment can raise capital only at higher rates (around 10%–12% p.a.). In addition, due to smaller size of operations and complex credit assessment methods, their cost of operations is also high compared to traditional banks. It hovers in the range of 4%–6%. If both these are combined, the effective cost of capital comes to 14%–18%. If we account for profit margins and provisions to this and the lending rates increase further.

## c. No differential stamp duty rates for affordable housing

The Central Government has clearly carved out affordable housing projects from conventional residential projects in the tax regime. Thus, the Goods and Services Tax (GST) rates applicable on under-construction apartments for affordable housing is 1%, whereas for other housing it is 5%.

While the Central Government clearly distinguishes between regular housing and affordable housing, most state governments are yet to recognise affordable housing as a district segment for the purpose of taxation, thereby subjecting this segment to the same tax regime as regular residential transactions. This additional change for stamp duty often becomes a deterrent for the affordable housing buyers, who are already financially challenged.

## d. Lack of established developers in the segment

While the established developers in the top metros are venturing into affordable housing space, majority are focusing on constructing affordable homes for the MIG segments. Not many are keen to venture into building homes for EWS and LIG segments and this gap is being catered to by small local/regional developers. However, financial institutions are not willing to finance smaller developers constructing homes in the EWS and LIG segments.

## e. Bank guarantees not aiding the cause

The projects for EWS and LIG segments are enormous, as the number of units to be constructed are higher. In order to ensure economies of scale and lower price of apartments modern construction technologies are used. Most of these technologies require high initial investment and must be used across multiple projects or in the same project multiple times to break even. In addition, the subsidy disbursal under 'Affordable Housing in Partnership' requires the developers to furnish a bank guarantee of similar amount. As majority of developers catering to this segment are small, they are not able to invest such a large amount upfront.

Even banks are not keen to provide bank guarantee for developers working in the EWS and LIG housing segment and demand a high margin amount. If developers are willing to pay the margin amount for bank guarantees, then they are left with very little resources to invest in technology.

## f. Liquidity crisis in the NBFC sector

The liquidity crisis, which started with the IL&FS default, has spread across NBFCs and HFCs. Many NBFCs and HFCs are in a precarious financial health. As the real estate sector was heavily reliant on NBFCs and HFCs for construction finance, this crisis has had a direct bearing on the fortunes of the real estate sector.

Many NBFCs and HFCs have scaled back operations, slowed down disbursals and are paying off their liabilities rather than focusing on expansion. As a result, funding for real estate projects has dried up. Only reputed developers with a strong track record are able to raise finance that too at a higher cost. Most developers in the EWS and LIG segment do not have such lineage and are unable to raise funds for their projects.

Even the demand side has been affected as homebuyers in the EWS and LIG segments are heavily reliant on NBFCs and HFCs for their home loans. The crisis has affected them adversely as well.

## g. Geographic concentration of lenders to EWS and LIG

Due to the associated high cost of credit assessment, companies lending to EWS and LIG segments prefer to operate in large EWS and LIG clusters in and around major metros. While such concentration in large markets ensures economies of scale for their operations, it also limits their activity to 8-10 major cities across the country.

# Recommendations

While numerous measures need to be implemented to ensure that the affordable housing for LIG and EWS reaches its trajectory, some of them are imperative and must be done at the earliest.

### a. Rationalising stamp duty rates

The GST regime taxes affordable housing units differently than regular housing. The same should be replicated in stamp duty rates by the state government. Rajasthan is one of the states where stamp duty on affordable housing projects is charged at a concessional rate of flat ₹25. The same should be implemented in other states as well atleast for the housing units being constructed for EWS and LIG segments.

### b. Change perceptions

Borrowers from the EWS and LIG segments suffer from serious perception and stereotyping issues.

The major issue being affordability and repayment related. If one looks at the profile of the borrowers, there is more than one earning member in the household and the children join the workforce at a young age. This increases the overall income of the household, thus improving the affordability. The repayment risk can be mitigated by asking the borrower to go for loan products with built-in insurance.

There is another misconception that since the rate of interest for loans offered to LIG and EWS segments are high, they may not opt for it. On the contrary, population in the EWS and LIG segments are forced to rely on money lenders, who charge interest rates upwards of 25% p.a. Thus, they find the rate of interest offered by NBFCs to be lower than money lenders. For this segment, the EMI amount is more important than the interest rate applicable on the loan. Since, the ticket size of the loan is small, a 5% or 7% additional interest rate boils down to an increase in EMI of a few hundred rupees. This is not a concern for homebuyers, because for them, getting a loan is more important.

The ability of EWS and LIG to absorb interest rates is higher, if the loan is sanctioned, this implies that the higher cost of operations,

which is added to the lending rates, can easily be passed on to borrowers.

If some of the perception issues can be addressed by providing the initial risk capital so that institutions can experiment in this segment, and if successful, the entire perception of the EWS and LIG segments would change.

### c. Reduce cost of capital

There are many global institutions who are ready to provide low cost capital for projects of social causes. An affordable housing fund on lines of National Investment and Infrastructure Fund (NIIF) can be launched by the Central Government. This fund will pool in investments from the global funds and this can be used to stimulate demand as well as supply by providing low cost capital. The funds can be transferred either by developing a securitisation market or by giving viability gap funding (VGF).

The grants from various global Non-Government Organisations (NGOs) and multilateral institutions can also be pooled in this fund or be directed towards the NBFCs and HFCs who have a good track record of financing home loans of EWS and LIG segments.

### d. Partnering with the same developer for multiple projects

Projects for EWS and LIG segments are generally very large compared to a normal housing project. Hence, modern construction techniques in shuttering, formwork and even pre-cast can be used. Due to large size of projects, reusing the same technology multiple times in the same project ensures economies of scale and helps in amortisation of the high capex.

To ensure further cost savings, under the PMAY scheme of affordable housing in partnership, the government can empanel the same developer to construct multiple projects in the same city/town or across cities. This will ensure that the technology and design is reused not only in the same project but also across multiple projects. This would help in achieving better economies of scale and bringing down the overall cost of construction. This would also improve the credit worthiness of developers.

### e. Integrating affordable housing in TOD policy

There are several good affordable housing projects, which cater to the EWS and LIG segments, by some of India's largest corporates in the outskirts of the top cities of India. However, these projects have not got the desired response, as they are located in distant locations which lack connectivity to major employment hubs. Consequently, homebuyers in the EWS and LIG segments are not willing to shift there. For them even the cost of daily travel is an important consideration while making the purchase. If this travelling cost can be minimised by bringing such projects near Mass Rapid Transport System (MRTS) corridors, then these projects can be a major success.

There are multiple MRTS projects coming up across the major cities of the country. Eventually, the transit-oriented-development (TOD) clusters would be developed around this corridor. In the TOD policy provisions can be made such that – if any developer wants to develop any land parcel or intends to redevelop the existing buildings in the TOD zone, certain portion of the development must be reserved for affordable housing projects of LIG and EWS segments. Extra construction rights or Floor Space Index (FSI) can be granted in-lieu of this like the Slum Rehabilitation Scheme (SRA) in Mumbai.

### f. Using long-term capital gains for financing

Currently, the long-term capital gains from sale of a property is exempt from tax only if it is invested in bonds issued by National Bank For Agriculture And Rural Development (NABARD) of a certain number of years. The same can be extended to bonds issued by National Housing Bank (NHB), which will only be used to finance loans of EWS and LIG segments.

### g. NHB re-finance

Currently, all HFCs do not get re-finance as there are numerous criteria to be met for eligibility. This situation has exacerbated after the liquidity crisis in the NBFC sector. Re-finance should be extended to all HFCs under the condition that the funds provided are utilised solely for affordable housing.

### h. Eliminate/reduce the margin money required for bank guarantees

Under 'Affordable Housing in Partnership' in PMAY, the Central Government grants a subsidy of ₹0.15 million and the state government contributes an additional amount of upto ₹0.10 million for each unit constructed for EWS and LIG segments. This amount is released based on construction milestones. However, the government demands bank guarantees for releasing this amount. In addition, developers must invest high amounts initially to procure technology required for construction of such projects. Most banks demand high margin money for such projects making the proposition unviable.

Therefore, the amount of bank guarantee required must be reduced or eliminated, and the subsidy disbursal timelines should be shortened to improve the fund flow to these projects.

Section 5

# RENTAL HOUSING MARKET

## When there is no willingness to buy

**NOT EVERYONE WANTS TO BUY**

Housing is a universal need next to food and clothing. However the need for housing does not necessarily translate into demand for house purchase, or ownership of a home. A significant part of this gap between need for housing and demand for homes for purchase is comprised of people who want to occupy a house without owning it. There are various factors contributing to this phenomenon of renting of homes. Some of the key reasons for renting homes are:

- Floating population in a city comprising of students, seasonal workers, working class households in transferable jobs and people in early stages of their career who are still undecided in their choice of city to ultimately settle in
- Migrant workers who have travelled to cities to find work and earn to be able to sustain their families in villages and other towns of their origin
- Owning a house is quite low in the hierarchy of needs for many. Food, medical / health services, security of family and education of children often take priority over need to own a house
- Owning a house often involves a long-term commitment towards servicing a mortgage over an extended period of time. In a socio-economic environment where people are not assured of their future employment prospects, there is limited willingness to purchase a property .
- It is very common to see unavailability of supply of affordable homes in city centres. Most of the affordable housing that are available are towards peripheral locations with travel time in excess of two hours. This makes it uninhabitable for a large proportion of city workers. They, therefore opt to rent informal spaces close to their place of work.
- It is costlier to own a house than to rent it

# Need based classification of rental housing demand

Rental housing can broadly be sub-classified based on needs. Key components of the rental housing demand include:

| Transitional buffer housing – | Need based rental housing – | Public rental housing / social housing - | Market driven private rental housing – |
|---|---|---|---|
| Temporary shelters / housing provided by government / NGOs for the homeless | Student housing, working women housing, industrial worker housing | Government owned rental housing focussed on affordable segment | Rental housing provided by private property owners, or private rental housing operators, at market driven rents |

# Size of rental housing market

As per Census 2011, over 21 million (27.5%) urban households live in rented accommodations. The corresponding figure in 1961 was 54%, albeit on a much lower base. The rental housing market is therefore projected to grow at a faster rate than rate of urbanisation over the next 20 years. As per Knight Frank estimates 'Purpose Built Student Housing' itself has a potential of 6 million hostel beds.

Rental housing suffers from market failure. Home developers do not build houses across the price spectrum, but focus mainly on upper price brackets. This leads to oversupply in the upper bracket and under-supply in lower end of the spectrum. Only a part of the oversupplied premium houses find their way in the rental housing market, where as under-supply in low income housing translates into a larger shortfall in the rental housing space. Indian cities lack any formal rental housing space for LIG especially the migrant population.

As per Census 2011, over 11 million (12%) of the housing stock is lying vacant in urban India. Low residential yields and tenancy laws favouring the tenants Act as a strong deterrent for the owners of investment properties to bring their residential assets into the rental housing market. Bulk of the existing rental housing market continues to be fractured and unorganised. This leads a large intermediary presence further resulting in hardships to landlords and tenants. Short term leave and license, with unregulated escalations are very common. Lack of an organised market also results in tenants being differentiated on the basis of religion, cast, sex and even culinary preferences.

Another important aspect of rental housing, especially from the users' perspective, is that the average cost of renting works out to almost 20% higher for a tenant, taking into account significant relocation expenses, brokerage expenses, and deposits to be paid. Though the Income Tax act provides for 40% of the basic income to be tax deductible, if utilised for renting, the urban poor with informal income pay as high 30% of their income towards rental housing, with no tax benifit.

# Need for developing a rental housing market

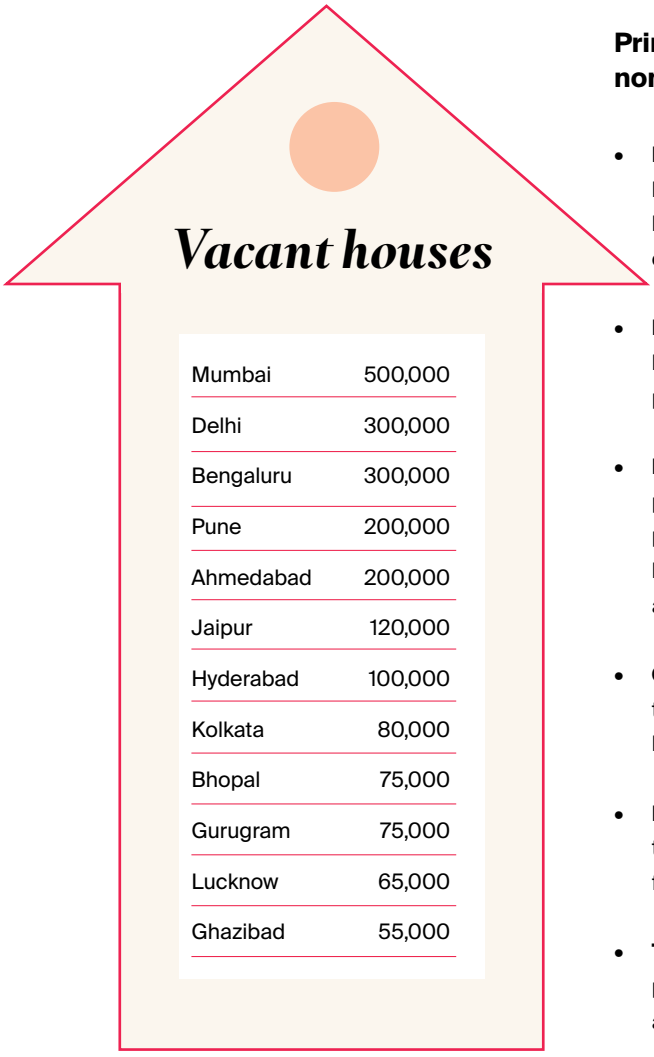
There is not a spec of doubt that rental housing is very crucial in supporting urban housing needs of a very large portion of urban India. In absence of any formal rental housing schemes, lack of supply pushes urban migrants to informal housing. Many large households continue to live in constrained sub-optimal dwellings, which often have gone past their physical life.

National Urban Renewal Housing Policy supports the development of a strong rental housing market.

*"Time is appropriate to support ownership housing by a strong, vibrant and sustainable inclusion of rental housing market with different models to address diverse housing needs for various segments of the population."*

# Impediments to development of rental housing market

Some of the largest urban centres of the country, with the highest urban housing shortfall, also have the highest number of vacant houses.

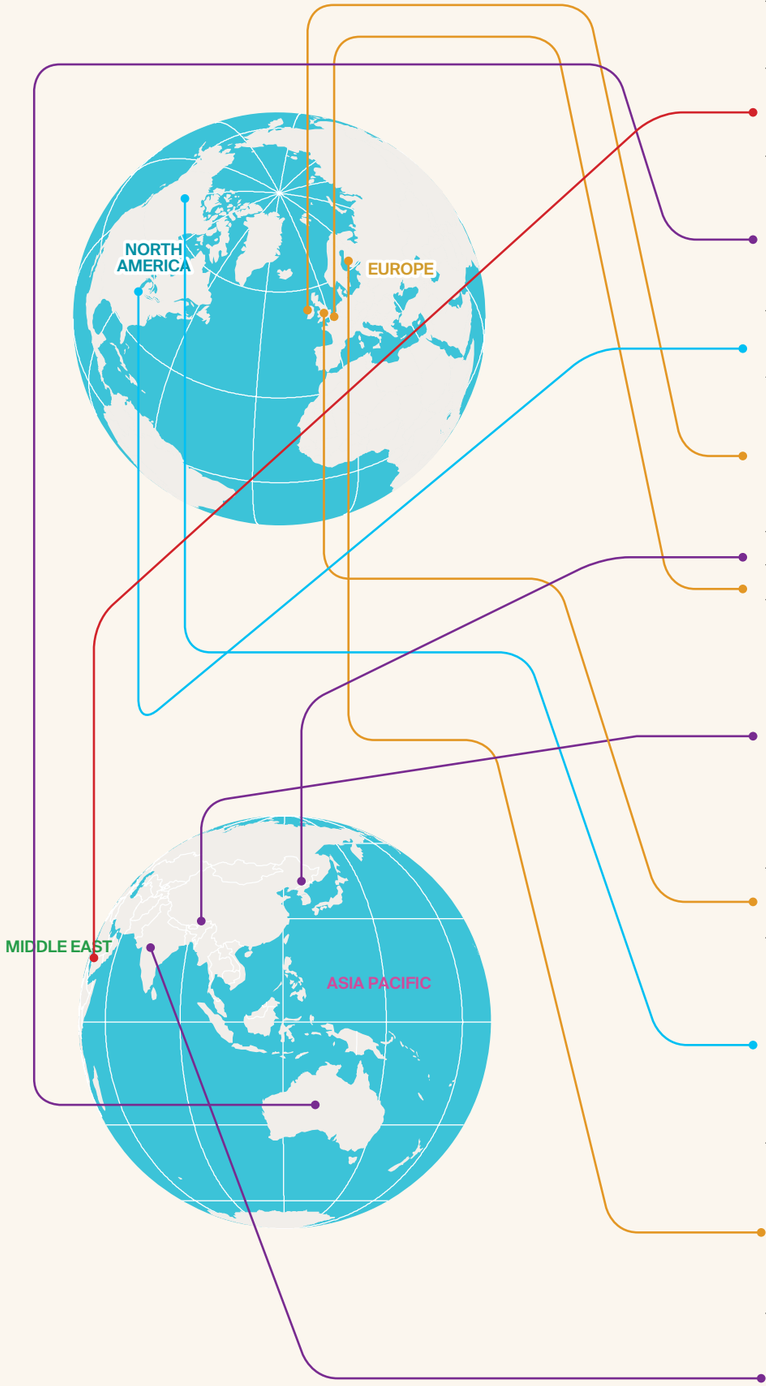



**Primary reasons for rental housing markets to be non-attractive to landlords are:**

- **Low residential yields -** Rental yields in most of the cities continue to be very low. The maximum rental yields observed are about 5% and lower bracket is close to 1.5%. Such low yields are perceived to be insufficient to cover the risk of renting the property
- **Risk of property litigations -** The long judicial process and prohibitively high cost of litigation deter the landlords to take the 'risk' of renting their properties
- **Rent Control Act -** The Rent Control Act was adopted with an aim of protecting tenants from eviction from the house they were living in and to protect them from paying more than a fair rent. Though the act did give the landlords right to enforce eviction in some cases, the implementation of the act has remained skewed towards tenant protection.
- **Cost of transaction -** The cost of transactions, including brokerage and taxes have continued to be very high thus reducing the net realization to the land lord
- **Lack of organised marketplace -** Absence of an organized marketplace to rent the properties often results in extended periods of vacancy; thus, further reducing the net annual realisation of the landlords.
- **Tax -** Renting homes is treated as commercial activity which increases property tax for landlords. For organised rental housing operators, electricity and utility rates are calculated at commercial rates.

# International examples of rental housing

Internationally rental housing is an important constituent of the housing market. Various policy and market level initiatives have facilitated the development of this marketplace. Some of the supply and demand side interventions are summarized in the following table.




| Country | Sr. no. | Supply side intervention | Nature | Demand side intervention | Nature |
|---|---|---|---|---|---|
| Dubai, United Arab Emirates | #01 | State promoted rental housing development and management company | Business | RERA regulates and registers rental agreements | Regulatory |
| | | Zero cost public land for development of rental housing | Land | Rent increase is regulated | Regulatory |
| Australia | #02 | Direct financial support to developers | Fiscal | Sub-market rents, discounted by 20% | Subsidy |
| | | Tax offsets | Fiscal | First Home ownership grants | Subsidy |
| | | Planning controls | Regulatory | | |
| | | Tenancy managers for schemes | Regulatory | | |
| USA | #03 | Low income housing tax credit | Fiscal | Housing choice voucher program | Subsidy |
| | | Organised student housing market | | | |
| Ireland | #04 | Interest set-off against rental income | Fiscal | Rent to own schemes | Policy |
| | | Zero stamp duty on letting of houses | Fiscal | Rent supplements | Subsidy |
| | | Income tax relief on capital expenditure and refurbishment of rental housing | Fiscal | Pooled housing units from various land lords available for rent from local authorities | Regulatory |
| | | Local authority draw's contracts and pays rent | Regulatory | | |
| South Korea | #05 | | | Vouchers for low income rental housing | Subsidy |
| Germany | #06 | Municipal rental housing development and management companies | Regulatory | | |
| China | #07 | Low rent housing schemes | Policy | Rent subsidies | Subsidy |
| | | Public rental housing schemes for migrant workers | Policy | | |
| | | Discounted land transfer for rental housing development | Land | | |
| | | Tax exemptions including zero stamp duty and registration charges for rental housing development and management companies | Fiscal | | |
| | | Double FSI for rental housing as compared to commercial housing | Planning | | |
| | | Low rent housing gaurantee fund | Finance | | |
| | | Reits | Finance | | |
| UK | #08 | Public housing | Regulatory | Rent to own schemes | Policy |
| | | Organised student housing market | Regulatory | | |
| Canada | #09 | Rental supply program | Policy | Rent paid by tenant pegged at 30% of income, rest subsidised by rent supplement directly to land lord | Subsidy |
| | | Interest free loans for a part of the cost, repayable after 15 years | Finance | Housing supplement. A part of the gap between 30% of income and market rent paid directly to tenant | Subsidy |
| | | Obligation to offer 33% of units to rent supplement tenants | Regulatory | | |
| Finland | #10 | Corporate investment in rental housing market | Regulatory | | |
| | | State subsidised rental housing enjoys state subsidy and interest credits | Fiscal | | |
| | | REITs for rental housing | Finance | | |
| | | Investments by pension funds and insurance companies | Finance | | |
| India | #11 | MMRDA rental housing policy | Policy | Chandigarh Housing Board rent to own scheme for rehabilitation units to slumdwellers | Regulatory |
| | | | | HUDCO rent to own scheme, for employer supported housing | Policy |

# Strategies for developing rental housing market in urban India

The need to develop a parallel rental housing market is becoming imperative to provide for the requisite homes for the burgeoning urban population that provides security, lifestyle and financial viability for its occupants. The government, both national and state have at regular intervals expressed their interest towards this segment of housing. The most recent Union Budget (2019–20) presented in July 2019, also vociferously mentioned the need and commitment towards creating a renewed Tenancy Law. Knight Frank looks at some of the strategies which can be employed to promote rental housing development which include:

### CHANNELISING GOVERNMENT OWNED LAND FOR RENTAL HOUSING DEVELOPMENT

Rental yields when calculated on overall property value vary from 1.5% to 5% in urban India. The government has significant volumes of underutilised lands. These lands, even if attempted, cannot be monetised over extended periods of time. If a portion of these land masses is utilised by the government or its agency for development of rental housing properties, the incremental cost to government would be limited to only the construction cost. The rental yields when calculated on the incremental cost to government (instead of the market value of the property), would work out to a range of 10% to 18%, which would make rental housing projects feasible.

### PLANNING CONTROLS

Planning controls can be effectively used to improve viability of rental housing projects. Some of them include inclusionary zoning, with land parcels being zoned for rental housing development. In such cases, the land value could be residual from a rental housing business model. Rental housing projects should also be offered higher FSIs and ground coverages, at nominal incremental cost.

### PUBLIC RENTAL HOUSING / SOCIAL HOUSING SCHEMES

As illustrated, some portions of the government lands being opened up for rental housing projects could be marked for social housing development, being cross subsidised by market rental housing developments

### RENTAL MANAGEMENT COMPANIES TO POOL PRIVATE HOUSES

Some of the factors deterring vacant privately-owned houses from entering the rental housing market are risks, costs and efforts associated with such transactions.

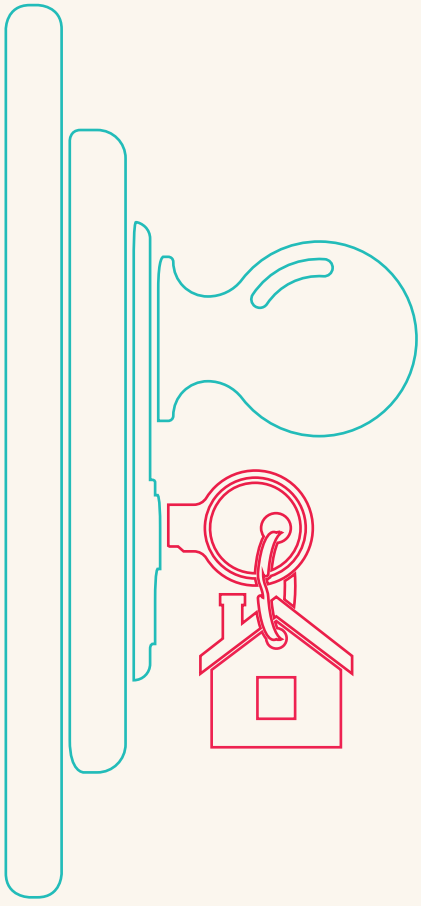
There is an opportunity for promoting public/private rental housing management companies, who in turn pool private properties to a common marketplace, where prospective tenants can select the properties of their choice. The pooled portfolio of properties operated by professional rental management companies would significantly bring down the risks through professional management and lower pooled risks. This would also mean hassle-free transactions for bothland lords and tenants

### RENTAL HOUSING REITS

Organised rental housing developments could also be picked up by REITs. The lower risk weightage of these properties would help reduce the overall risk profile of the REITs

### FISCAL SUBSIDIES

Fiscal subsidies to promote rental housing development tax breaks towards development and management of rental housing development would trigger growth in the sector.



Hypothetical illustration of 50 acres of prime government land in Mumbai being developed into a consolidated rental housing township

Plot area: **50** Acres
Development potential utilised:
**4.35 million sq ft**

**Essential retail 0.25 million sq ft**

**Affordable rental housing**
**3 million sq ft | 8,500 units**

**Mid-Income rental housing**
**0.75 million sq ft**
**1,000 units**

**Premium rental housing 0.35 million sq ft | 215 units**

**Cost of development: ₹12000 million**

| Subsidized rent | Market rent | Market rent | Market rent |
|---|---|---|---|
| **₹5,000** | **₹25,000** | **₹125,000** | **₹125/sq ft** |
| per month | per month | per month | per month |

Annual rent **₹1500 million** | Yield **13%**

Property rent appreciation
**3% per annum**

Returns to Public Sector:
Yield + Growth =
**16%**

Section 6

# MORE WITH LESS

## Affordable housing projects are very cost sensitive

Affordable housing developments are extremely cost sensitive. Cost of development impose a price constraint on one hand and pose a significant financial risk on the other. Most of the affordable housing projects present a low margin, high volume opportunity with relatively higher velocities of sale. Thus, with lower market constraints these projects have opportunity to be turned around much faster than conventional real estate, thus leading to a far higher efficiency of capital.

Ability to efficiently manage costs is the *key performance indicator* differentiating between a successful and an unsuccessful venture. Also, an X% saving in cost translates into 5X% improvement in profits.

Indian development industry continues to suffer from significant in-efficiencies in the project development life cycle. Many of these in-efficiencies are linked to regulatory structure and can be managed through policy interventions.

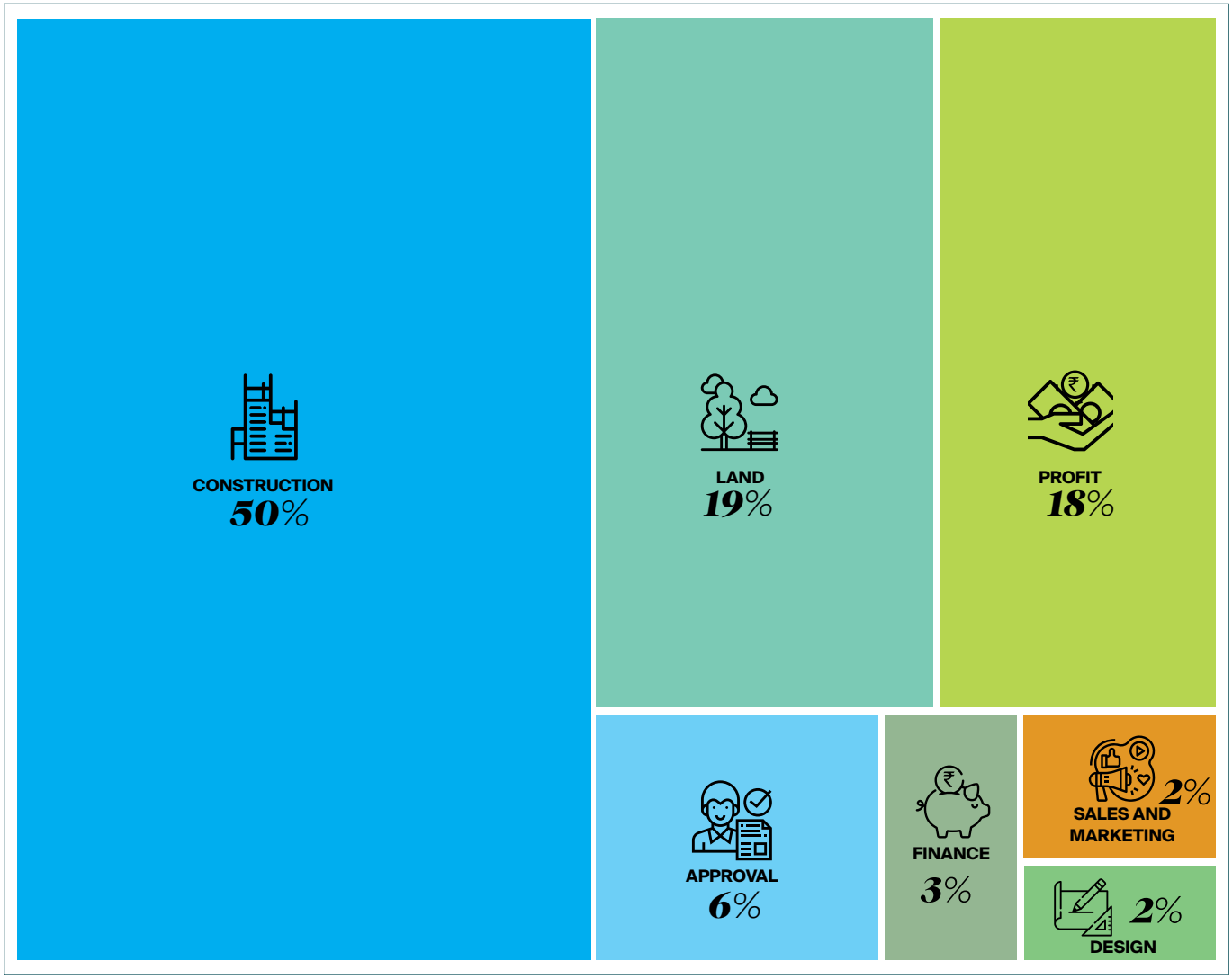
Many other are industry cum construction practices linked, and would require investments in mechanisation and technology. Ability of affordable housing projects to corner mass demand and thus higher sales, presents an opportunity to plan larger projects and take advantage of economies of scale.

This section discusses the unit cost structure for affordable housing projects, and strategies for optimising the costs to improve value proposition to customers and also the development margins for the developers.

# Affordable housing project cost structure

**The project development cost comprises of the following key elements:**

- **Land cost** – including costs related to land acquisition, legal, stamp duty and registration charges
- **Approval cost** – including fee payments to development authorities and other costs associated with obtaining approvals
- **Pre-operative expenses** – architectural costs, structural and services design costs
- **Construction cost** – including material, labour and administrative costs
- **Sales and marketing cost**
- **Finance cost**



## Land cost

While most of the other costs are not location dependent, land values vary considerably across the micro markets. Land, hence, is a key driver to project sale price. Affordable housing projects become non-feasible in high land cost territories. Traditional approaches to land value optimisation have included, increasing the development potential by allowing higher permissible FSI, and 'Cross Subsidising' land for affordable housing by bundling mandated affordable housing with other conventional real estate.

Increasing the FSI for affordable housing projects has not been able to deliver the desired returns. Higher FSI consumption requires high-rise construction. The higher construction costs of buildings beyond eight stories limit their application in affordable housing projects.

Some of the strategies which can further be employed to bring down effective cost of land for affordable housing projects include

**Inclusionary zoning** – where lands for affordable housing projects are zoned differently from other conventional real estate land uses. This would prevent land value bubbles, and retain land values within the range feasible for affordable housing development

**Land subsidy** – in the form of FSI certificates could also be considered which along with a well functioning TDR market be used to bring down effective cost of land for affordable housing development

**Unlocking government land** – for the purpose of affordable housing development presents a huge potential. However the conventional approach of maximising land monetisation value would not serve the purpose. These lands or parts of them would have to be made available within the feasible cost range.

## Design and approval cost

Design and approval cost comprise about 8 to 10% of the cost paid by a consumer. Over and above the direct costs associated with the approvals, it also contributes to an indirect component of finance and opportunity costs. The approval process involve tedious documentations, with multiple departments and often involve extended timeframes. Approval delays have a time value to a developer, which is priced to the customers. Lack of transparency and ambiguity in rules coupled with lack of accountability, results in the problem getting compounded.

Some of the strategies which can further be employed to bring down effective cost of design and approvals for affordable housing projects include:

**Standardised design -** sets if made available for affordable housing developments will help the developers to select one most relevant to their project. These sets could also have customisable variants for soil conditions, seismic zones, wind loads and other design factors. This will help reduce the cost of project design and drawings by 40 to 50%. Also this will eliminate the time taken by various consulting design agencies for design and drawings related issues.

**Online approvals with no human intervention** – the government has been focusing on this strategy, to reduce human interactions and thous reducing possibilities of 'rent' being extracted in the process.

**Pre-approvals** – the time component of the approval cost can be significantly reduced by migrating from pre to post approval approach. If a developer, for example, is adopting standardised building plans, he should be permitted to initiate construction, concurrent with the approval documentation.

## *Construction methodology/technology*

Tangible construction costs comprise only about 50% of the price paid by a consumer. The affordable housing projects present a significant opportunity to take advantage of economies of scale. Right priced affordable housing projects have been demonstrated to attract significant demand. This paves the way for mega affordable housing projects similar in scale to RAY Nagar project discussed in section 3 of the report. Some of the strategies which can be employed to reduce the construction cost include:

**Shorter project lifecycles** – fixed costs of the project can be significantly reduced through concentrated duration mass housing projects

**Economies of scale** – mass housing projects would also facilitate significant procurement efficiencies on account of larger consignment sizes.

**Standardisation** – since mass affordable housing projects would have larger quantities of standard designs, the operations model for these projects would involve a 'shop floor approach', as compared to a 'job work' approach employed in traditional real estate projects. Such an operations model would result in over 25% increase in productivity leading to cost savings.

**Pre-fabrication** – adoption of new construction technologies, with minimisation of on site activities presents the single biggest opportunity for construction cost optimisation. We have already seen shifting of concrete mixing from site to ready mix plants. A similar approach is feasible for building components to be pre-manufactured and assembled at site. However, any such intervention would have to be carefully executed to ensure that the technology is not perceived by the end consumer to be of inferior quality.

**Increased mechanisation** – a higher degree of mechanisation on construction sites would result in higher labour efficiencies and help bring down the labour component of the cost by almost 20%.

## *Sales and marketing*

A project with high pricing and wrong market requires substantially high marketing/advertisement and constant sales events to attract customers. Projects sales are slow, forcing the developers with capital constraints to slow down the construction. Longer duration of the projects would involve higher sales, marketing and administrative costs.
Right pricing of the project will help to attract more customers and sell the project in lesser time. Thereby, reducing the cost of sales and marketing. A pre-sold project built on demand can bring down the sales and marketing cost by over 80%.

Adoption of new construction technologies, with minimisation of on-site activities presents the single biggest opportunity for construction cost optimisation.

# Case study

# hoMMission

**THE SOLUTION**

hoMMission provides comprehensive 3D modular concrete structure building systems. This technology is implemented in various countries including Australia, the UAE and Beirut. The 3Dimensional pre-cast modular building system reduces overall construction time, cost, labour and gives superior acoustic, thermal and fire rating properties. The technology system that produces the module is fully automated and hydraulically driven which monitors the mould to maintain the production process within the fine tolerances ( ±3mm) that ensure accurate repetitious casting on a daily basis.


## THE TECHNOLOGY APPLICATION

The unique technology application is summarised below:

- The modules unlike traditional flat pre-cast panels, uses a process of producing five panels in a single pour, or a three-dimensional shape creating a pre-designed shaped room.
- The moulds are customisable during the module's design process. All openings - doors and windows, access points-piping and conduit and insulation are designed into the mould. Building all the features into the mould's design reduces project turnaround time and costs.
- This method is replicated and the modules are fitted together-side-by-side or atop of each other. This allows the roof of the first module to become the floor of the second module, as they are vertically stacked, similar to Lego blocks or bricks.
- The ability to fit the modules together reduces construction time.

## ADVANTAGES

Unlike the conventional and traditional 1D and 2D precast methods, this technology is the new unique truly 3D, monolithic, modular solution that can be poured complete with window and door frames, electrical and plumbing conduits already inlaid. The major advantages the technology offers include:

- Rapid construction on-site
- Quality and accuracy (+/- 2mm to 5 mm)
- Long term strength and durability
- Fire, water, cyclone, earthquake, termite, marine and corrosion proof
- Fire rating/sprinkler concessions
- All weather production facility
- Reduces scaffold and formwork
- Windows, doors and other modular furniture can be ordered straight from the drawings due the accuracy
- The external and internal walls painting can be done without the need to plaster
- The doors, windows along with their frames can be fitting at the time of casting the modules
- Value engineering can add cost and time savings of up to 20% on the overall construction
- Transportable factory–the moulds can be transported

The above advantages enables savings of 10 to 15% on the average cost per project and can build 20 to 30% faster per project with quality control built in.

# The Prop-Tech revolution

Silent technology innovations are reshaping the real estate industry. Proptech has had an impact on demand, how buildings are designed, constructed and maintained, and how customers are serviced.

Technological innovations have made this a remarkable era of growth. Real estate development industry is facing unparalleled market dynamics, which have in turn influenced demand, quality, competition, and service expectations. This period of turbulence has also produced a series of technological innovations. The use of tablets, smartphones, WiFi and 4G have radically transformed the speed at which information is transferred, all at the click of a few keys. This has increased our ability to work on the move, and has been instrumental in encouraging entrepreneurship on a large scale.

The advancements in technology are playing a big role in influencing demand, which has led to reshaping of real estate occupation patterns. E-commerce and technology used for transportation, by private and public transport, are constantly adapting to the travel needs of the customer, travel time being the essential factor. All these factors influence the choice of residential locations.

In the present day, customers are attracted to resourcefully designed buildings supported by lifecycle cost-reducing technologies. Parameters for building attractiveness are also being set by the technological innovations of today.

Service level expectations of end users have also risen due to the advancement of technology. Connected customers who now have access to a continuous stream of information demand a high degree of precise data in an even shorter response time.

One of the biggest impacts of the innovations in technology is on how building projects are now conceptualised, designed, planned, constructed, monitored and delivered to customers.

Proptech innovations are disrupting the real estate development industry. Although it is not extensively acknowledged, innovative technologies are influencing the industry, and are being used in development projects. Pre-fabrication, process automation and construction site robotics are already widely accepted across the real estate industry. Intelligent building design, smart building technologies and building information modelling have begun to influence the way buildings are designed, constructed and managed.

The heart of proptech is data. Well organised, relevant data procured through proptech will be vital for companies and facilitate quicker and smarter data driven decisions. The ability of companies to foresee the technological disruptions and the skill they employ to rapidly and masterly adapt to proptech will be instrumental to their future success in the development industry.

**MANOJ BHOIR**
Associate Director

# The technologies to look out for

The rapid pace of growth in technological innovations has led to the emergence of 'Decacorns' – firms with values above $10 billion. Various disruptive technologies that are set to reshape the real estate industry are discussed below.

### BIG DATA

'Big Data' companies make a more informed decision on needs and preferences of the customers. This would help them position the product as close to their expectation as possible. Marketplace technologies are able to identify and connect possible buyers and sellers in the virtual marketplace. It also helps connect with vendors, thus improving cost efficiency.

The technology has far reaching consequences for the affordable housing market. The technology on one hand would support development of a highly marketable product, while on the other hand it would support an intermediator-free seamless connect and transaction

### GEOLOCATION

Mapping technologies are fast evolving to co-populate host of data attributes such as property types, social infrastructure (schools, hospitals, day care centres), transit times, property prices, etc.

Property search attributes and transaction data-linked algorithms are helping automate accurate valuation models, based on predicted demand for different asset classes.

### MODULAR OFFSITE CONSTRUCTION

Modular offsite construction is an accelerating trend. In 2015, Chinese development company, Broad Sustainable Building (BSB), built the world's tallest 57-storey flatpack tower in a record 19 days, or three storeys per day. Their goal is to build the world's tallest skyscraper using flatpack technology. This alternative building method could transform the construction industry, offering a shorter timeline, less waste and possible cost savings.

### NEW MATERIAL

Cross-laminated timber is fast establishing itself as a quicker, greener and cost effective alternative to concrete or steel structural frames. Mass timber panels are produced by gluing layers of lumber together resulting in a material that can erect buildings that are just as strong and fire-resistant as those made from steel and concrete, yet can be drilled like wood and weigh 2.5 times less than that of an equivalent concrete frame. Whilst engineered timber has been widely implemented, the race is now on to construct the next generation 'Woodscraper'.

### STABILITY AND AERODYNAMICS

Thyssen-Krupp is developing an elevator system prototype that has no cable. It is based on magnet technology. Super high skyscrapers must withstand the powerful winds at high altitude, in addition to tolerating earthquakes. In the 32 years between the completion of the original World Trade Center and Taipei 101, there was only a 22% increase in height. In 2010, the development of the buttressed core structural system enabled the world's tallest building, the Burj Khalifa to skyrocket 2,716 feet, eclipsing Taipei 101 by more than 60%. This type of design gives buildings a stable tri-pod like stance with limited loss of space, redefining height possibilities for future skyscrapers.

### DRONES

Unmanned arial vehicles (UAVs) are exceedingly used by property developers and portals to capture 360 degree images from various building heights. UAVs are also used to film videos of major community level infrastructure improvements. Drones are also being used in the fields of topographical surveys, quantity survey, matching actual construction vis-a-vis the planned drawings and continuous project monitor.

### 3D PRINTING

The 3D printing technology continues to attract attention. The technology is still maturing but there are numerous international real world examples from China, Netherlands and the USA of successful deployment of technology in construction and development. The concrete 3D printing market is expected to reach 56.4 million USD. The technology brings-in up to 75% reduction in construction time. WASP, an Italian company, has developed one of the world's largest 3D printers which is capable of building homes using locally source material using solar, wind and hydro power.

### 4D PRINTING

4D printing is the new trend which uses the 3D printed structures to change shape over time. 4D printed products, for example, can create water pipes that can contract or expand depending on the demand. Currently 4D printing has not been applied to the concrete technology but researchers are in process of conducting analysis on materials like cement and limestone. 4D printing can manipulate the material to handle the excess stress that is formed when the pressures are applied. These materials have been labelled as smart materials that can transform based on varieties of energies.

### ARTIFICIAL INTELLIGENCE IN CONSTRUCTION

Artificial Intelligence (AI) presents an opportunity to maximise the benefits of modularisation and 3D printing, through machine learning. For example, the robotics industry has successfully trained robotic arms to move by learning from simulations. This application has far reaching implications in pre-fabrication technologies and building maintenance. The design industry is trying to use machine learning in the form of generative design and identify and mitigate clashes between the different models developed by different teams. AI and related software can be used to handle the logistics side of operations. Workers outfitted with mobile devices, which the system can communicate with to deliver up-to-date orders request and information.

### ROBOTICS

Advanced robotics are working on improving existing processes to make them more efficient and accurate. Collaborative Robots (Cobots) are designed to work alongside its human counterparts and improve productivity by carrying out tasks to support the human work. Robots offer higher efficiency on repetitive tasks. For example, SAM 100 masonry robots can lay up to 350 bricks per hour, much faster than most human masons. Wearable robotics are used to augment abilities.

Section 7

# WITH SYMPTOMS UNDER CONTROL TIME TO ADDRESS ROOT CAUSES

After almost one and half decade of work on affordable housing programmes and phenomenal success of the Housing for All programme, we are seeing light at the end of the tunnel. The last decade has seen more affordable houses being constructed as compared to a combined 60 years period of 1950 to 2009. Bulk of the efforts have been concentrated at bridging the housing need gap. Apart from continuing to focus on bridging the gap, the need is also to focus on strategies to prevent resurgence of the problem. We posed this question to our team of experts. They were asked to express their thoughts on what they feel can be done differently to ensure that the future urban landscape would not face these challenges of housing shortfall and proliferation of informal housing. This section summarises their thoughts.

**SUGATA SARKAR**
Senior Director - Consultancy & Market Research

# Transitional buffer housing stock

Metro cities in India welcome thousands of migrants everyday who come to urban centres for job opportunities, education or simply for better lifestyle. Migrants belonging to lower income groups find it very difficult to find a shelter in the city due to high price of urban houses. Most of them thus end up in informal housing or encroach land illegally to make shanties which later turn into new slums. While significant progress has been made in the field of slum redevelopment, notably with a creation of a well functioning marketplace, little work has happened on prevention of creation of new slums.

Transitional buffer housing or short-term housing can be an appropriate solution to address this issue. Transitional buffer housing is a form of social housing delivered by housing providers for people with very high housing needs (home less/street dwellers). Transitional buffer housing is not long-term housing. Transitional buffer housing gives eligible people an opportunity to stabilise their circumstances before moving to longer term housing. Transitional housing, therefore acts as a buffer housing stock, preventing encroachments and slum proliferation.

**In Queensland, Australia Transitional housing is delivered through the following programs:**

- **Community rent scheme**
- **Community-managed housing – studio units**
- **Same house different landlord**

Transitional housing tenants pay approximately 25% of their assessable income in rent, plus any Commonwealth rent assistance they receive. Tenants of community-managed housing–studio units may be charged an additional 3% of their assessable income to cover furnishings and maintenance of communal areas. The maximum rent which can be charged to transitional housing tenants is market rent. Market rent is the amount of rent a household in the private rental market would expect to pay for a similar property in the area.

Isobel Anderson in her paper 'Services for Homeless people in Europe: Supporting Pathways out of Homelessness?' has explained this concept further where she has shown a conceptual framework for comparative analysis which distinguished between emergency, transitional and long-term approaches to service provision.

| Approach | Accommodation | Services |
|---|---|---|
| Emergency/Crisis | Traditional night shelters<br>hostels for special groups | Advice/reception emergency facilities<br>Soup kitchens and clothes stores medical facilities |
| Transitional/Support | Transitional housing supported housing | Social support |
| Permanent / Integration | Ordinary housing | Training/Employability |

*Adapted from Edgar et al 1999, p56*

[1] *Queensland Govt. Dept. of Housing and public works*

She has also explained in the same article typology of services for homeless people and those in immediate risk of homelessness.[2]

| Service type | Example |
|---|---|
| Prevention services for households in immediate risk of homelessness conflicts, assumption of rent arrears etc. | Services offering mediation in cases of domestic |
| Emergency accommodation for roofless persons | Emergency shelters |
| **Temporary accommodation for houseless persons** | **Temporary hostels, supported or transitional housing, shelters for victims of domestic violence** |
| Non-residential services for homeless and formerly homeless persons | Outreach services, day centres, advice services, health services, mobile food services, education, training and employment services, floating support for ex homeless persons in permanent housing |
| Accommodation for other client groups that may be used by homeless people | Hotels, bed and breakfast, specialist support and residential care services for people with alcohol, drug or mental health problems |
| Mainstream services for the general population that may be used by homeless people | Advice services, municipal services, health and social care services, welfare payment services |
| Specialist support services for other client groups that may be used by homeless people | Psychiatric counselling services, drug detoxification facilities, services for former offenders, services for vulnerable young people |

*Source: Busch-Geertsema et al (2010, p44, adapted and amended from Edgar, 2009, p. 17)*

Emergency shelter and transitional housing can be provided to urban migrants falling into EWS/LIG category on short term or temporary basis till the time they find a suitable job opportunity or find an affordable house to shift.

There are several NGOs and govt-funded agencies in the UK, USA and Canada e.g. Room for Refugees, Ontario Council of Agencies Serving Immigrants (OCASI), Housing Europe, etc. who work in the sector of emergency and temporary housing mostly catering to immigrants and refugees. Though the end users are different, but the same concept can be applied or adopted in urban context of India for urban migrants, which can provide a sustainable solution to stop creation of new slums.

Transitional buffer housing can be financed through government contribution in the form of land and Corporate Social Responsibility fund allocations from corporates. NGOs can be roped in to eficiently manage such facilities.

[2] *(Services for Homeless People in Europe: Suppoting Pathways out of Homelessness?): A. Isobel*

**ALOK SINHA**
Associate Director - Transaction Advisory Government & Infrastructure

# Shorter tenure titles

Share of public housing in Hong Kong is about 50%. Post 1997 all land leases in Hong Kong are granted for a period of 50 years. However, the city also has some colonial leases effective for a period of 999 years. Understandably, homes are sold with a flat markup for the plot's long tenure, when most other new flats across the territory are built on lands leased for just 50 years.

All lands leases in Hong Kong are for
50 years

Similarly 84% of Singaporeans live in Singapore Housing and Development Board (HDB) developed flats. HDB over the last 50 years has built over 75% of the housing stock of the city. The HDB flats come with a fixed tenure of 99 years. That is the flat, along with the underlying land, compulsorily, has to revert to the administration at the end of the said tenure. Thus the value of the unit at the end of the tenure is zero. As evident, the units approaching the end of the tenure trade at a significant discount to longer tenure units.

The value differential between freehold and leasehold property exists even in India. Shorter the lease tenure higher the difference. The value differential presents a possible application for affordable housing development. Shorter tenure housing development can be packaged at a price lower than that of freehold/long tenure housing. The property, if offered with an initial tenure of 30 years with an option to extend the lease for an additional period of 30 years on payment of renewal premium, can be priced 20% lower than a similar long tenure property.

Such a tool can be effectively used in subsidised housing on the principle of government subsidising the housing need of a household for a period of 30 years, post which the housing unit can revert to a common pool of public housing. The same unit can be offered to some other beneficiary, thus effectively improving the efficiency of limited subsidy pool.

**SAURABH MEHROTRA**
National Director - Valuation & Advisory

# Rent to own

Often the prospective buyers do not have sufficient funds to complete the equity component of a transaction. In absence of equity payment, home loans are not disbursed by the financial institutions. In all such situations rent to own contracts can come in handy. They allow a person, even if one is unable to afford a mortgage on the whole of the current house value, to purchase a partial share of the house and pay rent on the remaining share.

Rent to own contracts are option contracts where a buyer/tenant leases a property for a pre-defined period with an option to buy the property at a pre-decided price (with or without escalation), during or at the end of the lease period. A person can buy the share using savings or a mortgage or a combination of both. The buyer and seller can mutually decide on the lease option period. The lease rent paid is usually slightly higher than the market rent for similar properties, as it also includes a portion of the commitment money/equity.

The seller benefits with higher yields and a better clarity on the transaction price. While the buyer benefits from a deferred payment for a home whose price he has been able to lock. The properties under rent to own agreements are usually better managed.

The ownership rights of the property owner are completely secured as the title of the property only exchanges hand when the option to buy is exercised by the tenant. In case the tenant decides to walk out of the rent to own transaction, his loss is limited to the higher than market rent paid by him. This is the property owner's gain without any risk on the title of the property.

Shared ownership schemes are another variant of the rent to own contracts, where a tenant buys a share of the home and rents for the balance portion. Over a period of time, a tenant has an option to step up his fractional ownership, while reducing the component of the property at rent. These subsequent additional share purchases in the property happen at market value, which is transparently evaluated and published. The schemes are effectively used to facilitate first time homebuyers. Mortgages are usually available for the initial share purchase (25% to 75%) after an equity investment as low as 5% of the property value.

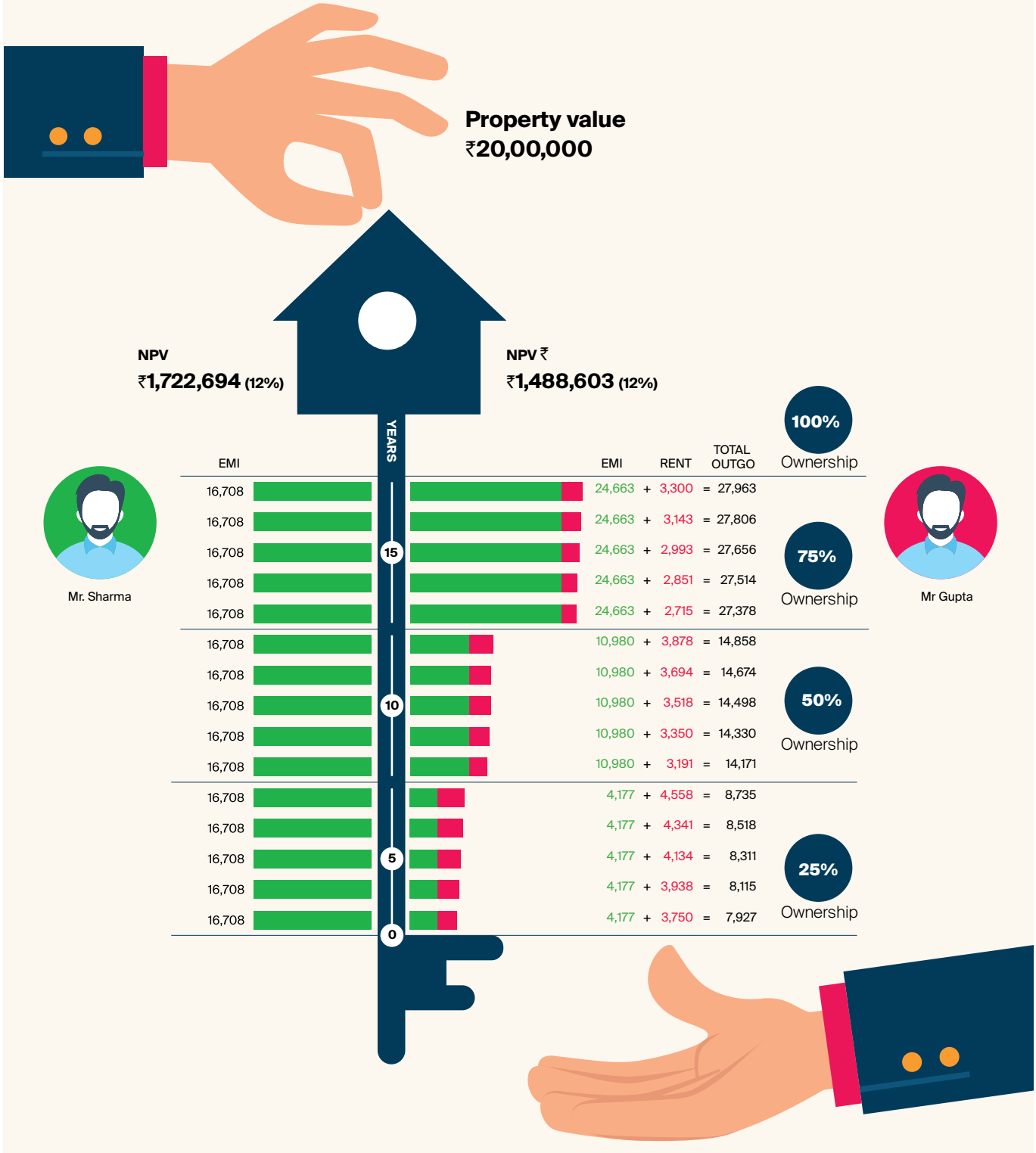
**RENT TO OWN SCHEMES WORK OUT CHEAPER**

Rent to own schemes have a dual advantage of lower initial payments, as well as a lower monthly outgo for bulk of the tenure. As an illustration lets consider the case of Mr Sharma and Mr Gupta, both of who have purchased identical houses worth ₹2.0 million each.

*Mr Sharma made a down payment for 20% of the value, i.e. ₹0.4 million and opted for a 15 year home loan for the balance ₹1.6 million, monthly EMI for which works out to ₹16,708. Over a period of 15 years Mr Sharma spent approximately ₹3.4 million, present value of which at 12% discount rate works out to approximately ₹1.725 million*

*Mr Gupta however opted for a rent to own scheme. He purchased 25% share of the property to begin with and stepped up his share in property by 25% every five years. The first three share purchases were done using bank finance for 80% of them, i.e. for every share purchase he made down payment of 5% of the property value. The last tranche was purchased at the end of 15 years with zero bank finance. Mr Gupta continued to pay rent for the portion not owned by him, i.e. 75% for first 5 years, 50% for next 5 and 25% for last five years. His total outflows in 15 years works out to approximately ₹4.46 million, almost 31% higher than Mr Sharma. However, since Mr Gupta's outflows were more spread out and higher towards the end of the tenure, the Net Present Value of his outflows works out to ₹1.59 million, almost 13% lower than Mr Sharma.*

# RENT TO OWN SCHEMES WORK OUT CHEAPER



**BINITA PATEL**
Vice President - Consultancy

# Housing boards 2.0 - Rental development and management companies

With the development of a well-functioning marketplace in 'for sale' housing markets, various housing boards and public housing development companies have lost out to the efficiency of the private sector. In the increasingly competitive environment, housing boards have usually been successful in launch and delivery of product, when the product on offer was at significant discount to the market.

**Housing boards continue to have the following strengths which can be effectively leveraged for the development of rental housing marketplace.**

- Access to government land which can be leveraged for development of rental housing stock
- Strong control over regulatory aspects
- A large institutional set up which can be re-engineered for delivery of rental housing
- Lower profit expectations as compared to private sector participants
- Strong credit worthiness which can be leveraged for project development finance

International examples such as al wasl in Dubai with a portfolio of over 25,000 built to rent properties currently managed across Dubai, and SATO in Finland with over 23,500 rentable homes, have demonstrated effectiveness of institutional rental housing participants.

Non-usage of government land continues to be a missed opportunity. According to initial estimates by the Department of Public Enterprises, Ministry of Finance, 0.235 million acres of surplus land lies with public sector undertakings (PSUs). Railways have 38,000 acres of vacant land. Defense cantonment occupy approximately 0.187 million acres over and above this 1.596 million acres of military-occupied land lie outside these notified areas. Various government colonies occupy prime real estate across the country often with very low densities. Prime land parcels continue to be under sub-optimal usage in the hands of port trusts and agricultural collages

If housing boards are able to mobilise a fraction of these underutilised lands for the development of rental housing developments, the incremental cost to government would be restricted to construction cost of these properties. Rental yield when calculated on incremental cost would be as high as 12 to 14%, add to that a 5% growth on account of appreciation of property value, would result in a viable business model at par with the international examples of SATO and al wasl.

Mobilising institutional finance from Pension Funds and insurance companies, either through direct investments or through rental housing REITs would enable long term patient capital. Corporate participation in rental housing projects through employer support schemes and 'take or pay guarantees' would improve the project viabilities and facilitate creation of rental housing marketplace.

**AJAY AGRAWAL**
Director - Planning and Infrastructure Advisory

# Zoning reforms to address land market imperfections

Diversity is an essential factor to make a neighbourhood functional with its share of representation of people across the socio-economic strata. In such a scenario, land use zoning can be used as a successful tool to create an inclusive urban fabric.

As land rates are normally higher in central business district (CBD) and secondary business district (SBD), low-income households cannot afford housing in such places. While most of the informal labour and activities crucial for a functioning of neighbourhoods is provided by the low/mid income strata, housing unavailability either pushes them to city outskirts or to take up informal housing in slums or urban villages. While most of the policy support in India has been focussed at supporting demand, through subsidies, the fundamental supply side problem of uncontrolled land prices remains unaddressed.

As the land price is high in CBD and SBD areas it is not viable for developers to make affordable housing in such areas. Also, in case of slum rehabilitation programmes, once the horizontally spread slum is rehabilitated in densely packed high rises, the extra land is used for other purposes, which in turn reduces the land amount necessary for upcoming migrating people belonging to lower income groups. In such a scenario, land use zoning can be used to control the land price in CBD and SBD areas.

Inclusionary Zoning (IZ) is a land-use planning tool which reserves land or earmarks zone to be exclusively used for affordable housing purpose. Several US and Canadian states like Toronto, Vancouver, New York, Boston, etc. have used this in their urban planning and housing policies. In Toronto, municipalities can tailor inclusionary zoning to suit local needs and contexts.

In a similar fashion, New York City's Inclusionary Housing programmes aim to promote neighbourhood economic diversity in the city's highest-density districts and in neighborhoods planned for significant residential growth. likewise, major mission of Boston Planning and Development Agency (BPDA) is to create and maintain diversified housing stock that is accessible, affordable, and energy-efficient. The BPDA implements the City's Inclusionary Development Policy (IDP) to preserve access to affordable housing. If lands are zoned for specific sub-usages, like EWS/LIG housing, the land values would stabilise at the highest achievable value for that sub-use. This land for affordable housing would also be available within feasible range.

**GULAM ZIA**
Executive Director - Valuation & Advisory, Retail & Hospitality

# Social housing is an urban infrastructure as essential as a water treatment plant !

Urbanisation and economic growth move in tandem. Indian cities are booming contributing to the bulk of the country's GDP. Over 34% of the country's population lives in cites to which additional 270 million people are likely to be added to take it to 46% of the country's population by 2040.

Human resource is the single biggest factor input fueling the growth of these urban economic powerhouses. The continuous inflow of population to existing and new cities would be critical for the pace of economic growth to continue. Absence of quality affordable housing would choke the growth.

Under the traditional master planning approach, there is no distinction between land allocated for premium, mid-income or affordable housing. On account of this, land values are allowed a free float within the defined usage. Land prices settle at the residual value of the highest and best use. Thus creating economically segregated neighbourhoods with the affordable housing neighbourhoods being pushed to city outskirts. This also more often fuels growth of slums and urban villages.

The traditional approach has been to look at land as a 'resource' to fund the infrastructure augmentation of the city. However land for low income/worker housing needs to be distinguished from commercial housing.

Low income housing is an urban infrastructure as critical to the growth of a city as presence of roads, water, sewerage, power and communication. When new cities are planned or existing cities expand, land for critical urban infrastructure is zoned and made available to the urban local bodies at no additional 'cost'. Why shouldn't the land for social housing be given a similar treatment? Such lands could be zoned and made available to public/private social housing development companies, for creation of rentable affordable housing stock. This buffer stock would act as a slum prevention mechanism, and also support development of inclusionary neighbourhoods

When land pooling schemes are operationalised, a portion of the land is held back for urban infrastructure development. Some portion of this land needs to be allocated for development of social housing. In absence of any significant land cost, the viability of social housing projects would significantly improve, thus facilitating creation of a marketplace for such ventures which is not dependent on government subsidy.

Section 8

# SUMMING UP...

On track to delivering 10 million houses by 2022

Urbanisation will create demand for additional 25 million units by 2040

Subsidy is not going to be enough. Market development would be the key

Affordable housing development expertise is very thin, needs support

Limited availability of project finance to affordable housing beyond metros

Affordable housing finance market picking up but cost of funds and operations very high

Rental housing is the missing link...

Opportunity to channelise government land and public sector development apparatus to boost social rental housing

Potential to remove inefficiencies from the project delivery cycle to bring about 20% cost reduction

An X% reduction in cost results in 5X% improvement in profits

Indian cities would need to build buffer housing stock as a slum prevention mechanism

Inclusionary zoning would help rectify land market failures, and also create a more inclusive neighbourhood

Rent to own contracts and shorter tenure lands can ease the purchase barriers for affordable housing buyers

Affordable housing, like any other infrastructure, is critical to the growth of the city. Land value allocation to affordable housing projects should be at par with infrastructure

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