

AFFORDABLE HOUSING IN URBAN AREAS

Introduction

Cities are engines of economic growth and innovation. Urban Indians now form about one-third of the population – and they produce more than three-fifths of the country's GDP.

Development of the housing sector has a direct impact on employment generation, Gross Domestic Product (GDP) growth and consumption pattern in the economy.

Objectives

It has been increasingly realized across the globe that sustainable housing and urban development have a crucial bearing on the quality of life and social and economic well being of the people. Accordingly, housing has been placed at the center of the New Urban Agenda of Habitat III, 2016.

Sustainable and disaster resilient housing have been recognized as an important lever in meeting the commitments towards the Sendai Framework and Paris Agreement on Climate Change. Goal 11 of Sustainable Development Goals aims to make cities and human settlements inclusive, safe, resilient and sustainable.

India, too has acknowledged the importance of housing in improving the socio-economic conditions of the people and accordingly launched the Mission of Housing for All by 2022.

Housing Scenario and Challenges

Ten states together contribute to 76 per cent of the urban housing shortage. These states are Uttar Pradesh, Maharashtra, West Bengal, Andhra Pradesh, Tamil Nadu, Bihar, Rajasthan, Madhya Pradesh, Karnataka and Gujarat (TG 12, 2012).

The housing surplus is in the higher income groups while 95 per cent of the deficit is in the EWS and LIG categories.

Further, projections indicate that India's urban population which registered an annual growth rate of 2.76 in 2011 is estimated to grow to 814 million people by the year 2050. This will pose a major challenge in provision of housing and basic amenities to the growing population especially the poor.

Scarcity of developed and encumbrance-free land, increased cost of construction, lack of

private sector participation, absence of viable rental market, inaccessibility to home loans by poor are some of the challenges which need to be addressed for development of the affordable housing market.

There are also certain regulatory constraints such as long and cumbersome approval process, environment clearance, lack of clarity in building by-laws and implementation of the master plan.

Government Initiatives

These include Integrated Subsidised Housing Scheme (1952) for industrial workers and economically weaker section. Low Income Group Housing Scheme (1956); Slum Improvement/Clearance Scheme (initiated in 1956 and discontinued in 1972 at national level); Environmental Improvement of Urban Slums (1972); National Slum Development Programme (1996); Scheme for Housing and Shelter Upgradation (SHASHU as part of Nehru Rozgar Yojana, introduced in 1989 and discontinued in 1997); Night Shelter (1988-89). Two Million Housing Programmes, VAMBAY (Valmiki Ambedkar Awas Yojana (launched in 2001-02); Jawaharlal Nehru National Urban Renewal Mission (JnNURM); Rajiv Awas Yojana (RAY); Rajiv Rinn Yojana (RRY) and the latest Pradhan Mantri Awas Yojana-Urban (PMAY-U). In addition, various ministries have had their own programmes targeted towards their area of work.

The new policy was announced in 2007 as 'National Urban Housing and Habitat Policy'. This policy sought to promote various types of public-private partnerships for achieving the goal of 'Affordable Housing for All.

Acknowledging the need for rental housing, a National Urban Rental housing Policy along with Model Tenancy Act has been drafted so as to catalyse the nascent market for formal rental accommodations.

Real Estate Regulation Act (RERA), liberalised Foreign Direct investment (FDI) rules, Real Estate investment Trusts (REITs) and Goods and Services Tax (GST) are some of the landmark reforms.

The government has accorded 'infrastructure status' to affordable housing.

The Centre has undertaken significant mortgage reforms by way of a new broad-based Credit Linked Subsidy Scheme (CLSS) under PMAY-U to ensure that its benefits reach beyond the EWS and LIG segments. It has also introduced a Marginal Cost of Funds-based Lending Rate (MCLR) for speedy transmission of Reserve Bank of India rate cuts to home buyers.

New Urban Housing Mission

In June 2015, Prime Minister launched the Pradhan Mantri Awas Yojana – Urban (PMAY-U) to provide housing for all by 2022. The scheme provides central assistance to Urban Local Bodies (ULBs) and other implementing agencies through States/UTs. The programme has 4 verticals; the Credit Linked Subsidy Scheme (CLSS) and the other three centrally sponsored schemes namely, in-situ rehabilitation of existing slum dwellers using land as a resource through private participation; affordable housing in partnership and subsidy for beneficiary-led individual house construction/enhancement.

The nodal agencies such as housing and Urban Development Corporation (HUDCO) and National Housing Bank (NHB) at the central level are responsible for channelizing the subsidies to the lending institutions and monitoring the progress.

In order to achieve innovative sustainable modern building technologies, a Technology Sub-Mission has been set up to facilitate the process under PMAY-U. It enables quality construction, green technologies, preparation of flexible design layouts as per the various geo-climatic zones and assists rapid construction.

Convergence of Missions

The integration of urban schemes help the cities to upgrade themselves faster in terms of meeting the housing demand equipped with necessary infrastructure, both social and physical.

Smart Cities Mission (SCM) is a flagship mission of the Ministry of Urban development (MoUD) that aims to promote cities that provide core infrastructure and give a decent quality of life to its citizens.

Area-based development is a key element of Smart Cities, which is expected to transform existing areas (retrofit and redevelop), including

slums, into better planned ones, thereby improving liveability of the whole city.

Atal Mission for Rejuvenation and Urban Transformation (AMRUT) endeavours to provide every household access to supply of water and sewerage connection, improving open spaces and reduce pollution through mobility solutions, thereby providing the basic infrastructure to housing. This mission covers 500 cities across the country.

Swachh Bharat Mission (Urban) aims to eliminate open defecation, eradicate manual scavenging and incorporate modern and scientific Municipal Solid Waste Management.

The Scheme of Shelter for Urban Homeless under Deen Dayal Upadhyay Antyodaya Yojana – National Urban Livelihood Mission (DAY – NULM), ensures availability and access of the urban homeless population to permanent shelters including the basic infrastructure.

National Urban Health Mission (NUHM) envisages to meet health care needs of the urban population with focus on urban poor by providing essential primary health care services and reducing their out of pocket expenses for treatment.

Conclusion

States have an important role to play in this as 'housing and urban development' is a state subject under the Constitution. Through their policies, States must prepare a comprehensive housing action plan clearly articulating the right institutional and legal structures for enabling ecosystem to achieve this ambitious task.

Practices in low cost housing and rapid paced construction technology require large scale application to meet the demand of affordable housing in urban areas. This will ensure that our Prime Minister's vision will be realized with strong commitment from all the stakeholders including the governments (Centre, State and Local body) and private sector for providing housing for all by the 75th Anniversary of Indian Independence.

LAND ACQUISITION, REHABILITATION AND RESETTLEMENT

Introduction

The linkages between Land Acquisition, Rehabilitation and Resettlement (LARR) and Housing for All (HFA) assume significance primarily in the context of scarcity of land for planned development and the overwhelming shortage of adequate, affordable housing in India.

The Government of India's Pradhan Mantri Awas Yojana (PMAY) aims at building 20 million new units by 2022. At the same time, about 56 per cent of rural India or a staggering number of over 10 crore rural household is landless.

Three parameters stand out for scrutiny. The first two— Adequacy and Affordability – have entered the policy discourse with discussions on how 'low-income' households should be defined, what the size and cost of an affordable house is, and what services and materials define adequacy. A third, however, has remained unaddressed or has received scant policy attention. This crucial parameter – 'Viability' – relates to the location of affordable housing.

For low-income groups, three aspects of what constitutes Viability are imperative: (a) linkages with employment and livelihood (i.e. people live where the jobs are); (b) connectivity (largely in terms of access to public transport) and (c) access to physical and social infrastructure.

Ignoring location or geographical contiguity means ignoring the actual nature of what makes a 'house' into 'housing' and not just a 'unit'.

The LARR Act does include in its definition of 'public purpose', acquisition for the following purposes:

- (a) Project for housing for such income groups as may be specified from time to time by the appropriate government.
- (b) Project for planned development or improvement of village sites or any site in urban areas or provision of land for residential purposes for the weaker sections in rural and urban areas.
- (c) Project for residential purposes for the poor or landless or for persons residing in areas affected by natural calamities or for

persons displaced or affected by reason of implementation of any Scheme by Government etc.

Further, where the Government acquires land for such purposes through PPP or private mode, the provisions relating to consent are also additionally applicable (70 per cent in PPP; 80 per cent in private companies), as would provisions on social impact assessment.

Further, where land is being acquired under the LARR Act, the R&R provisions lay down minimum infrastructure facilities (including housing unit) that must be provided as part of R&R in case of displacement caused as a result of land acquisition under Eminent Domain.

If the government proceeds with the alternative route of land pooling (i.e. not Eminent Domain type land acquisition), it is necessary to ensure that the redeveloped plot of land has adequate provisioning for EWS/LIG/affordable housing, with infrastructural amenities and employment opportunities.

Two challenges are thus before us. One, we should be pragmatic about the difficulty in using LARR and instruments of land assembly for affordable rural and urban housing till now and thereby highlight the need to create housing policies that accounts for this gap. Two, it is necessary to challenge this historical reluctance to use LARR's provisions for affordable housing.

The PMAY focusses on the following four areas: (a) redevelopment using private developers using land as a resource, where extra TDR/FAR can be provided to the private sector to make such projects financially viable; (b) credit linked subsidy for weaker sections as a way of promoting affordable housing; (c) affordable housing in PPP mode, with Central Assistance where 35 per cent of constructed houses are for EWS category; (d) subsidy for beneficiary led individual house construction.

The PMAY excludes families that own a pucca house (or an all-weather dwelling unit) from receiving its benefits. In other words, incremental upgradation of pucca house – for enhancement or in-situ upgradation (not redevelopment) will not be eligible for the benefits under PMAY.

Numerous examples from various states provide illustrations of how the goal of ensuring

affordable and adequate housing or all could be realised. For example, Karnataka's Affordable Housing Policy of 2016 provides or seven models.

How then should we proceed?

This could be done not just through LARR efforts but also by redirecting existing land uses in an equitable and efficient manner.

More significant, could be the policy of creating Affordable Housing Zones within new city plans. Rajasthan has, for example, in Kota and Jodhpur, implemented under its Affordable housing Policy (2015).

Private developer constructs affordable housing units in 75 per cent of a land parcel currently vacant/unused, in return for 25 per cent off the land to be developed for free sale units.

The Ranchi Master Plan 2037 has notified proportionate portions of land for affordable housing zones.

Conclusion

It is clear from the above, that LARR is one part of a much larger strategy of how to ensure that affordable housing for all is implemented across the country. Given the stark realities, this is one public purpose which needs to sand out for policy attention and implementation.

It is imperative that such development must create new jobs, and substantially improve basic infrastructure facilities, without which acquisition efforts would which acquisition efforts would largely work in isolation.

REGULATING REAL ESTATE SECTOR

Introduction

A bill seeking to regulate the real estate sector, bring in transparency and help protect consumer interests was passed by Parliament last year. This Act is called the Real Estate (Regulation and Development) Act, 2016. It extends to the whole of India except the State of Jammu and Kashmir. It has been implemented in India with effect from Many 1, 2017. The object of the Act is to regulate and promote the real Estate Sector by forming Regulatory and Adjudicating Authority and thus ensure transparency and purchaser welfare.

Prior to the coming of real Estate Act, purchasers of real estate were being treated like a consumer within the meaning of Consumer Protection Act 1986 or he had an option to move his application under civil court.

RERA – an Overview

The real estate sector comprises four sub sectors – Housing Retail, Hospitality, and Commercial. Overall urban housing demand in India is expected to grow by nearly 15 million units by the end of 2019.

Real estate is a critical sector for India's economy due to its large potential for employment generation, capital attraction and revenue generation for the Government. It is one of the fastest growing sectors contributing about 9.5 percent of India's GDP.

The Indian real estate sector, with backward and forward linkages to approximately 265 ancillary industries, has been making rapid strides in recent times and has emerged as one of the most important contributors to the Indian economy.

The Central government has identified 305 cities and towns under the Housing for All Mission, also called the Pradhan Mantri Awas Yojana, which has targeted to build 2 crore homes for urban poor by the year 2022.

The criteria for low cost/affordable housing has been changed from built-up area of 30/60 sq mtrs to carpet area o 30/60 sq mtrs, thus making the low cost – affordable housing segment more lucrative for the builders and also making the segment more attractive for the buyers.

The Mission is expected to need 38 million workforce by 2030 from 29 million at present, predicted to be the key job creator.

Real Estate sector is one of the leading revenue generators in our country and it needed some regulatory authority or some transparent government authority to keep a check on developers. RERA will provide a common ground for both buyers and developers and will reduce the risks which were faced by the people earlier.

Key features of the RERA are as follows:

- It regulates both commercial and residential real estate projects.
- Bill seeks to set up Real Estate Regulatory Authority in states and union territories to oversee real estate transactions.
- Bill makes registration of real estate projects and real estate agents with the authority mandatory.
- No pre-launch will be allowed without getting all approvals from the local authorities and without obtaining registration from the regulator. All incomplete projects are to come under the regulation.
- The bill covers any project that is more than 500 sq meters or has more than eight apartments (states can lower this requirement further).
- The authority can even order “compensation” to consumers in case of misleading advertisements.
- Developers will have to provide brief details of projects launched in the past five years, both completed or under-construction, and the current status of the projects. These may be made available on the regulator’s website so buyers can take an informed decision.
- Disclosure of carpet area is a must as per the Bill.
- The Real Estate Bill has also made it compulsory for builders to deposit 70 percent of the amount raised from buyers into an escrow account in a scheduled bank within a period of 15 days to cover

the construction cost of the project for timely completion of the project.

- It seeks to establish fast track dispute resolution mechanisms for settlement of disputes through adjudicating officers and Appellate Tribunal.
- The bill bars civil courts from taking up matters defined in it. However, consumer courts are allowed to hear real estate matters.
- Promoters are barred from changing plans and design without consent of 2/3 buyers of the project.
- Another key feature of the bill is the proposal to charge equal rate of interest for promoters and buyers in case of default or delays. The provision was earlier tilted in favour of the builders.
- The Bill has made it mandatory to set up an allottees association within three months of the allotment of major units/properties so that the residents can manage common facilities like a library and a common hall. Also, if the buyer finds any structural deficiency in the property then he/she can contact the developer for after-sales service within one year of possession.

The Bill facilitates setting up real estate regulators at the state level.

Conclusion

Most experts believe that the bill will bring in much-needed transparency in the sector. This will help increase fund flow into the projects.

RERA is an effort by legislature to regulate the unregulated but important Real Estate Sector of India which not only contributes significantly to India’s GDP but also provides jobs to millions of people. RERA will help to bring more transparency and accountability on the part of Real Estate companies and ensure safety of purchaser of real estate from any frauds or misrepresentations.

GREEN TECHNOLOGIES IN AFFORDABLE HOUSING

Introduction

Increasing population along with the rapid urbanization has led to a significant shortfall of housing in the country. The housing shortage for 2012-2017 is estimated to be 18.78 million units in the urban areas and 43.90 million units in the rural areas.

More recently, Government of India (GOI) proposed several ambitious schemes to address the housing shortage in the country. They include Housing for All (Urban) by 2022 Mission, Atal Mission for Rejuvenation and Urban transformation (AMRUT), and Smart Cities (Ministry of Housing and Urban Poverty Alleviation Government of India, 2015; NHB, 2015). The additional houses built under the schemes will also add tremendous pressure on the current infrastructure and resources of the country.

India's residential sector electricity consumption constituted 23 percent of the total current electrical consumption. Further, the projection scenarios indicate that the electricity consumption of the residential sector is expected to rise by more than eight times by 2050. Hence, it is of vital importance to build houses that minimize the use of energy, water, and material resources during their life-cycle.

Ministry of New and Renewable Energy (MNRE) offered capital subsidy incentives for purchase and installation of solar water heating and solar lighting equipment in houses. While the existing green rating programs encourage voluntary certifications of the housing complexes, concerted policy efforts are required to promote the use of energy-efficient and green technologies for affordable housing.

Design Philosophy

The design philosophy of affordable housing should incorporate key performance metrics such as indoor air quality, thermal comfort, and energy performance index (energy use per unit area of the house). Affordability should be determined based on the entire life-cycle costs (construction, operation and disposal) as opposed to the traditional approach of accounting for only the initial construction costs.

The housing design should also incorporate climate-responsive design and encourage and use of the local building materials for construction.

Design Approach

Energy-efficient buildings are typically designed using one of the two approaches—prescriptive-driven or performance-driven. Prescriptive approach specifies requirements for each components. The builders, developers, or designers can choose the most suitable option from the possible combinations to design and construct the building. In the performance approach, a detailed energy simulation of the building using simulation models is performed to assess whether the building meets or exceeds overall performance criteria for the building.

Efficient Envelope

The envelope of the affordable housing should be designed to minimize the heat gain inside the building. High reflectance roof (also known as the cool roof) is one of the cost-effective technologies to reject solar radiation falling on the building. Further, wall, window, and roof materials with the higher thermal resistance (lower thermal conductance), commonly known as R-value, will significantly reduce heat gain inside the building. The Higher thermal capacity of the roof and wall materials, commonly known as the thermal mass, further dampens and delays heat gain inside the building.

The most important property for the fenestration (such as windows) is solar heat gain coefficient, commonly known as SHG. Phase Change Materials (PCM) is also an effective approach to increase comfortable hours inside naturally ventilated buildings.

External Shading Devices

External shading devices, fixed or movable, can be a very cost-effective approach for affordable housing to reduce direct solar radiation and heat gain from the windows. Traditional buildings often incorporate fixed external shadings (awnings and overhangs) in their design. Research demonstrates that the external shading devices have a potential to reduce solar heat gain from the window by 15-30 percent.

Ventilative Cooling

The primary purpose of the ventilation is to maintain indoor air quality in the buildings. However, the well-designed ventilation can also use outdoor air to provide space cooling whenever the environmental conditions are favourable. Several strategies such as cross-ventilation using well-designed openings have been found to provide 15-20 percent comfort and energy benefits in the Indian houses.

Low Energy Technologies

Evaporative cooling is one of the cost-effective technologies that can maintain space thermal comfort with low energy consumption.

Integration of solar lighting and water heating in the affordable houses can significantly reduce the energy consumption of the affordable houses.

Energy Management Systems (EMS) is a very effective measure of energy use of affordable housing.

Conclusion

A plethora of cost-effective approaches to incorporate energy-efficient and green technologies are available. A set of pre-configured housing layouts incorporating key design parameters, construction components, and green technologies options could lead to the suitable development of affordable housing.

As an alternate, the prefabricated housing can also lead to cost-effective design and construction of high-efficiency affordable housing. These good quality affordable housing with green technologies can play a significant role in securing the well-being and economic growth of the country.

INFRASTRUCTURE REQUIREMENTS FOR HOUSING FOR ALL

Introduction

The public housing programme in the country started with the rehabilitation of refugees immediately after the independence and since then it has been a major focus area of the government as an instrument of poverty alleviation.

Housing is a basic necessity as well as a part of the construction industry and important sector of the economy. Construction sector contributes towards 8 percent of the Indian GDP (at constant prices) and is the second largest employer and contributor to economic activity, after the agriculture sector. The construction sector accounts for second highest inflow of FDI after the services sector and employs more than 35 million people, considering the direct, indirect, and induced effects in all sectors of the economy.

Cities are centres of wealth. The per capita income of some of the largest cities is much higher than the average per capita income of the country as a whole and, in some cases more than double the national average but they are also intertwined with the national and rural economy through consumption patterns, remittances and other links.

The housing industry is one of the fastest growing sectors in India With a large population base, rising income level and rapid urbanisation leads to growth in this sector. In 2001, about 286 million were living in urban areas across India. It has the second largest urban population in the world.

As per the census 2011, the urban population had increased to 377 million thereby registering a growth of around 32 percent. The housing shortage in rural India is estimated at 47.4 million units, in 2012. As per the estimates, nearly 590 million people will live in Indian cities by 2030. With this population, India has an estimated urban housing shortage of 18.8 million dwelling units.

This will be a significant population for which mobility services need to be thought through. The demand for urban transport in newly-growing areas and now smaller cities also will need significant attention so that urban

transport in these locations don't reach crisis proportions before they are addressed. The approach to small and medium towns and large rural areas cannot be the same as for metropolitan cities and while their demands and problems are also significant, urban planners should not look at them with the peculiar lens out of their understanding of mega cities alone.

In 2001, there were 5,161 towns in India which increased to 7,935 towns by 2011. The total urban population living in cities and towns in any particular class has increased consistently due to urbanisation throughout the last century. This urban growth pattern has led to increasingly larger proportions of population living in Class I towns. Over two-thirds of the total urban population now lives in cities that have populations over 100,000 (Class I towns). The continuing increase in the number of large cities, million-plus cities, half-million-plus cities, and 100,000-plus cities does have implications for strategies for urban transport management.

The Government has formulated many policies to resolve these issues for housing and urban service delivery. The first attempt at setting urban services norms and standards was made in 1963 by the Zakaria Committee. Subsequently, other government committees/ agencies/ institutions like the Town and Country Planning Organisation (1974), Planning Commission (1983, 1999), Operations Research Group (1989), Ministry of Urban Development, Government of India (1991), Central Public Health and Environmental Engineering Organisation (1999), Ishar Judge Ahluwalia Committee on Indian Urban Infrastructure and Services (2011), national urban transport Policy (2006) and state governments have come up with norms for different services.

Additionally, many bodies like the National Housing Bank (NHB) and Housing & Urban Development Corporation (HUDCO) has also been created to facilitate the implementation of such policies. The first policy specific to urban housing was the National Urban Housing and habitat policy in 2007 (Ministry of Housing and Urban Poverty Alleviation, 2007). It focused on affordable housing as a key objective for sustainable urban development. Following this, many programmes specific to affordable housing have since been incorporated as:

- Jawaharlal Nehru National Urban Renewal Mission (JNNURM): it aimed to construct 1.5 Million houses for the urban poor in the mission period (2005-2012) in the 65 mission cities. Two policies under JNNURM targeted housing. Integrated Housing and Slum Redevelopment Programme is a direct housing policy measure. Basic Services for the Urban Poor (BSUP) aims at providing entitlements such as security of tenure, affordable housing, and services such as water, sanitation, health and education and social security to low-income segments.
- AFFORDABLE Housing in Partnership (AHP): A market solution based approach by involving private players.
- Rajiv Awas Yojana: This programme aimed at providing affordable housing to the urban poor.
- On May 2015, Rajiv Awas Yojana (RAY) was rolled over into the housing for All (HFA) by 2022 policy. This report analyses the RAY and HFA 2022 policies after developing a framework for sustainable policies for addressing the problem of affordable housing.

The Prime Minister envisioned Housing for All by 2022 when the Nation completes 75 years of its Independence. In order to achieve this objective, Central Government has launched a comprehensive mission "Housing for All by 2022". The scheme comes with an aim of constructing more than two crore houses across the length and breadth of the nation within a span of next seven years (2015-2022). The scheme known as Pradhan Mantri Awas Yojana (PMAY) will be implemented as Centrally Sponsored Scheme (CSS).

The target beneficiaries of the scheme would be poor and people living under EWS and LIG categories in urban establishments of the country in 4041 statutory towns as per Census 2011 with focus on 500 Class I cities which would be covered and carried out in three substantial phases as follows:

- PMAY Phase I: The Phase-I (April 2015 to March 2017), a total of 100 cities would

see the developmental work started and completed during this phase.

- PMAY Phase II: Phase-II (April 2017 to March 2019), a total of 200 more cities would be covered and developed.
- PMAY Phase III: Phase-III (April 2019 to March 2022), during this phase the left over cities would be covered and developed.

The Budget 2017 has proposed infrastructure status for affordable housing, a long-standing demand of developers, and also increased the allocation for the PMAY from Rs 15,000 crore to Rs 23,000 crore, bringing the country closer to realising the Housing for All mission by 2022. Granting infrastructure status to affordable housing is significant as it will provide cheaper sources of finance to developers and also open up additional avenues for developers to raise funds.

In the Budget 2015, the government has also committed to provide 60 million houses. It has also committed to invest about 61 billion USD by 2019 to make affordable houses available. However, the total estimated investment requirement would be about 1 trillion USD, 70-80 percent of which be in the affordable segment over the next five to seven years. To meet these funding needs, the government on attracting private sector investment in the development of the housing sector. One crore houses are also to be built by 2019 in rural India for the homeless and those living in 'kaccha' houses.

With the huge target of the scheme, it is revealing that in the coming years the boom would be take place in the construction and real estate sector, A huge investment would also be made in this sector. This investment would also give an incredible growth to the economy. This growth will create multiple opportunities in the cities.

As Ed Glacser puts it, "cities don't make poor people; cities attract poor people". This attraction is nothing but migration. Migrants face difficulties in accessing housing and other basic amenities such as water and sanitation and transportation. In many cases, work is usually in sectors like construction, where work availability is intermittent and workers remain under-employed. As such, workers tend to live in miserable

conditions and are exposed to harassment. They, especially shorter term migrants, are often forced to live in urban slums, facing constant threats of displacement and eviction. Many live in footpaths and city parks without provision of basic services and subject to harassment, especially for women.

Not only do such cities attract more migrants to work in the growing enterprises, the lack of an adequate housing response means that most of these migrants are in informal settlements, such as unauthorised colonies, if not slums. The very diversity of the population, the interwoven webs of social networks and matrix communities creates more possibilities for livelihood per square kilometre for any single individual than they might have otherwise.

The major challenges market faces on supply and demand side of housing and urban infrastructure are:

- Complex and lengthy processes for pre-implementation stage: This shall include land conversions, building plan scrutiny and approvals, obtaining construction permits and other long list of NOCs from various agencies/departments. This can take about two years and vary significantly from state-to-state, impacting project cost and time, thereby making it unviable to provide housing at costs affordable to the urban poor.
- Lack of adequate external infrastructure and connectivity: Some of the state governments have taken note of these issues and have proactively taken steps to simplify and streamline policies and processes—for instance, the land pooling scheme and redensication scheme in Madhya Pradesh, GPS-based Physical Progress Monitoring System in Karnataka and so on.

If progress with the Housing for All by 2022, is to be completed in the time bound manner, we really need to keep in mind these target and to emphasise on the various important infrastructural issues viz water, sanitation and health, transport, education, power and environment to live in a good and sustainable condition to make sure that in the future these housing societies may not turn into a mess and not

give any opportunity in the future to rise of slums and environmental and health hazards in their surroundings.

Water, Sanitation and Health: inadequate coverage, intermittent supplies, low pressure and poor quality are some of the most prominent features of water supply in the cities of India. With rapid increase in urban population and continuing expansion of city limits, the challenge of delivering water in Indian cities is growing rapidly.

Pollution of water, air, and land has contributed greatly to the proliferation of disease, e.g. dengue, malaria, chikungunya, swine flu, diarrhoea, asthma and acute respiratory infections. Water supply is inadequate, poor maintenance and inadequate replacement leads to technical losses in the distribution network. Errors in metering, un-billed water consumption and plain theft contribute to commercial losses. All this leads to high levels of non-revenue water. With no monitoring system in place and no incentive to reduce inefficiencies, the urban water scenario in India is one of poor service delivery, poor maintenance of physical systems, poor recovery of costs and poor generation of revenues.

In addition, the most common natural threats to the cities are related to flooding, erosion and water pollution and the provision and management of water will become more and more pivotal. It is very important to ensure potable drinking water to the existing and future houses. It is evident that large scale centralised engineering projects have historically done more harm than good. Alternative decentralised urban water management has to be tested.

Sewage service should keep their network free of obstruction and leakage and treat the entire volume of Waste collection in a manner that preserves waterways, water sources and the environment as a whole. The situation in India is unfortunately far from ideal. The extent of water supply and sanitation facilities is grossly inadequate and even in those areas which have water supply it is intermittent and often of poor quality, resulting in negative health impacts.

It is to be mentioned that: 4861 out of the 5161 cities/towns in India do not have even a partial sewerage network. Almost 50 percent of households in cities like Bangalore and Hyderabad do not have access to any form of latrine facility

and defecate in the open. Less than 20 percent of the road network is covered by storm water drains.

The futuristic demand of fresh water or drinking water or water for the industrial uses will go up with the growing cities. The production of waste water which is deposited, largely untreated into already limited fresh water resources by further exacerbates scarcity conditions. In this scenario it is important to increase the water treatment plants for the drinking water as well as for the industrial use. It is estimated that the lack of waste water treatment leads to over \$15 billion spent in treating water-borne diseases in India (CII and CEEW 2010). Also, there should be focus on the drainage system, availability of latrine facilities etc.

Solid Waste management: The management and disposal of solid waste generated in Indian cities leaves a great deal to be desired, although the generation of solid waste is at much lower rates than in most countries. Neither households nor municipalities in India practise segregation of biodegradable waste from the rest, and public awareness on the benefits of segregation is low. The collection of the garbage from dumpsites is infrequent, processing is not done in most cases, and disposal rules are followed more in the breach. The Municipal Solid waste rules were put in place in 2000 but their enforcement has been poor.

The fact that a large part (over 60 percent) of India's waste is biodegradable, provides an opportunity for composting. While lifestyle changes, especially in the large cities, are leading to increased use of packaging material, and per capita waste generation is increasing at about 1.3 percent per annum, the biodegradable component is still expected to be much higher than in industrialised countries. The government of India has launched the Swachh Bharat Mission (SBM) on October 2, 2014 with a target to make the country clean by October 2, 2019.

Transportation

'Urban Transport' (UT) is a broad name for a sector that covers a variety of modes of intra-city transport for people and goods, including walking, bicycling, non-motorised transport such as rickshaws etc., private personal transport, i.e., cars and motorbikes; public transport such as taxis and para-transit modes among others.

Public transport accounts for only 22 percent of urban transport in India, compared with 49 percent in lower middle income countries (e.g. the Philippines, Venezuela, Egypt) and 40 percent in upper middle income countries (e.g. South Africa, South Korea, Brazil).

Share of the public transport fleet in India has decreased sharply from 11 percent in 1951 to 1.1 percent in 2001. Only 20 out of India's 85 cities with a population of 0.5 million or more in 2009 had a city bus service. Road density (km per sq. km) is 9.2 in Singapore, 9.7 in Curitiba, 21.8 in Seoul, 10 in Johannesburg, 3.8 in Chennai and 19.2 in New Delhi.

The highly inadequate and poor quality of the public transport system in Indian cities not only poses a major challenge to realising the growth potential of the economy but also has adverse impact on the health and well-being of the people. Long hours spent on road journeys, lives lost in road accidents, and air pollution are only some of the effects of the acute problem of transportation facilities in and around cities.

UT is important as it could be a facilitator or could pose a burden on the urban contribution to city productivity and the national economy. The defining trait of urban transportation is the ability to support higher densities in urban areas and efficiently, affordably move people and goods through and in the city. Agglomeration economies rely on provision of basic urban infrastructure services in general and UT infrastructure in particular. It connects people and residential areas to education and employment locations, expanding opportunities and choices for people to access alternate education and employment.

The efficiency and effectiveness of the UT system also has an important impact on the health and safety of the commuters in specific and urban residents in general. Safety from traffic-related accidents as well as safety from crime, is also related to the way the city and the transport system is planned and managed. In terms of the health-related impacts of transport in urban areas, vehicular pollution has emerged as the top contributor to air pollution.

In order for cities to perform their role as engines of economic growth and innovation, while providing an improved quality of life to its residents it is very important to integrate the

competing demands of transport, housing and commercial real estate in their development. In the absence of adequate provision of UT infrastructure including public transport, congestion diseconomies, environmental degradation, deterioration in civic services, fatalities and injuries due to road traffic crashes and air and water pollution can outweigh the benefits of agglomeration. Well-planned and implemented UT can augment the agglomeration advantages of cities and minimise their congestion diseconomies.

To some extent, the poor showing of public transport in India can be attributed to the fact that the tax policy regime militates against public transport. The total tax burden for public transport vehicles per vehicle km is 2.6 times higher than for private vehicles. The Parliamentary Standing Committee on Urban Development (Urban Transport) 2010 recommended a 'congestion tax' on personal vehicles in the form of a toll tax in congested areas. But the Ministry of Urban Development has indicated that in the Indian context, levying of congestion tax may be premature at this stage keeping in view the quantity and quality of the available public transport and the absence of Intelligent Transport System (ITS). Now, the time has come to impose the congestion tax to maintain such a chaotic situation and to reduce the carbon emission for the living of future generation.

The future generation who will live in these affordable houses, has to get 24x7 electricity and water which is a basic right. There is also an urgent need to plan for social and other economic infrastructure like educational and health institutions, parking facilities, open space, pedestrians and gardens to make living in a healthy and dignified manner towards achieving the aim of making future generation an asset for the country.

INDIA AT 70: A VIBRANT DEMOCRACY

Introduction

Seventy years ago a new era of freedom was ushered in as a result of a long freedom movement, a momentous chapter in India's ageless history appropriately called 'tryst with destiny' heralded democracy and sought to secure justice: social, economic and political.

The Constitution of India in the making of which B.R. Ambedkar bestowed visionary leadership as Chairman of its Drafting Committee was adopted on January 26, 1950. The Constitution has given us a magnificent structure to build the idea of India through democracy and its institutions. We have moved on this path relentlessly and several achievements are to our credit. There are many unfinished tasks to be accomplished and several shortcomings and lacunae in our system and finding new ways of working it need to be attended to.

Achievements

Our achievements are many. Four of these are required to be specifically highlighted.

First, India went on to establish popular sovereignty, which meant rule by the people through their freely elected representatives. Today, India is not only the largest democracy in the world but also the most vibrant one.

A bold and magnificent decision was taken to introduce the system of *one person, one vote, one value* in the country. The universal suffrage paid rich dividends and the subsequent devolution of power to grassroots levels has helped consolidate the gains. Democracy is at heart of governance in India.

Another favourable feature in India is the increased participation of the common people in politics.

Second, the Indian democratic system introduced economic content in polity management. One of the significant triumphs of this approach is that India is self-sufficient in food production notwithstanding huge growth in population since 1947.

India's political leadership, policy makers and business brains are motivated by a strong desire to make the country a major economic power in the 21st century. The high rate of

economic growth coupled with comfortable foreign exchange reserves and rising Sensex figures have imparted in them a growing confidence.

Third, our Constitution is committed to two different sets of principles that have a decisive bearing on equality. First, is the principle of equal opportunity for all and the second, the principle of redressal of educational and social deprivation. After the acceptance of the Mandal Commission Report by the Government of India in 1990, reservations were extended to candidates from other notified backward classes as well.

One of the advantages of affirmative action has been an improvement in the distribution of opportunities among the SCs, STs and backward classes.

Fourth, several public institutions of Indian democracy like the judiciary, the Election Commission, the audit system, the media and some public bodies built over the decades are strengthening the processes of democratic functions in an admirable fashion. The Right to Information given to the people is another step that has empowered them.

Security and Justice

The primary responsibility of the state is to provide security of life and property to every citizen.

The Indian state is facing a serious challenge to its authority from lawless elements. The Jihadi terrorism in Jammu and Kashmir and its adhoc but frequent spread to other parts of India; the insurgency in the North-east; and the rapidly expanding base of the Naxalite movement in mainland India constitute grave challenges to democratic governance.

Access to justice entails that a citizen knows his rights as well as the forum where he can seek redress. In reality there are many citizens who do not know their rights, or cannot afford to fight and do not even know where to get help. Another challenge for such citizens is the complexity of legal proceedings themselves, apart from their length and cost.

Removal of Poverty

There is a high concentration of persons below the poverty line in the large and poorer

states of the north and the east. It is imperative to correctly identify persons below the poverty line and computerise the list. It would be possible then to give them economic advantages directly. This economic criterion will naturally cut across religion and caste lines, rich and poor states, and also across rural and urban areas.

If India succeeds in giving its youth quality education and skills, democratic governance will be greatly strengthened. Today, the youth has a choice between world-class engineering colleges and joining Naxalite camps and criminal groups. The Naxalite option needs to be effectively closed and criminals brought to justice.

Employment

A mechanistic view of growth assumes that demography is density. But this by itself does not add to prosperity, unless young people are educated and skilled and new jobs are created. If we fail to equip the youth with good quality education and skills, India's demographic dividend could become a serious challenge to stability of the polity.

Education and Health

Besides employment to the youth, India has to rapidly work for providing quality education to children and healthcare facilities to all. In addition, the state has to pay particular attention in provisioning of health care facilities to working people, the elderly, the children, the sick and the poor. The public spending on health and education, however, is typically enjoyed more by the well-to-do. The schools and health centres in areas where the poor live are often dysfunctional and extremely low in quality.

It may be recalled that for centuries India had excellent centres of learning both at school and higher education levels. This contributed immensely in the making of Indian civilization as one of the most glorious in the world. Today, the country badly needs to strengthen its higher learning centres to facilitate innovations in important areas of human knowledge.

The health care facilities in the country too are in disarray. The situation is worse in several states and particularly in rural areas where seventy percent of the population lives. It is true that cities have numerous private hospitals and clinics and have better doctors and the services.

There is requirement to improve primary health care centres in rural areas. This could be done by building clinics in rural areas and developing streamlined health IT systems. The need for skilled medical graduates and nurses is rapidly growing in the country and it must be urgently addressed.

Fortunately, the present government at Centre has taken steps to formulate a new Education policy and Health policy. These need to be adopted and implemented in view of their importance. In fact, this constitutes a major challenge to the Indian state and is required to be attended to with promptitude. An imaginatively crafted monitoring mechanism would be of enormous assistance to ensure quality delivery of services to people.

Corruption and Criminalisation of Politics

The criminalisation of the political process and the unholy nexus between politicians, civil servants and business houses is exerting a baneful influence on public policy formulation and governance.

The high level of corruption in India has been widely perceived as a major obstacle in improving the quality of governance and as an impediment to inclusive growth. While human greed is obviously a driver of corruption, it is the structural incentives and poor enforcement system for punishing the guilty that have contributed to the rising incidence of graft in India. The complex and non-transparent system of command and control, monopoly of the government as a service provider; underdeveloped legal framework, lack of information and weak notion of citizens' rights have all proved as incentives for corruption in India. We have to adopt a more effective system that punishes the guilty with speed and protects the reputation and honour of honest business entrepreneurs and politicians.

Possibilities and Future Perspectives

There are enormous possibilities of India strengthening itself in economic, military and cultural terms in coming decades. The rise of India is getting noticed in every sphere of human activity ranging from sports to space, computer software to pharmaceuticals, yoga to dance forms. The path of progress and development, however, is not easy in view of India's neighbourhood and

social challenges within. We cannot afford to indulge in foreign policy adventures nor ignore the demands of disadvantaged groups for more amenities in politics, education and healthcare. Simultaneously, we have to strengthen our military and strategic capabilities.

The Indian leadership is required to make policy choices in several economic, social, cultural, and external arenas in order that we can successfully synergise our strengths and abilities for technological innovation, problem solving skills and political vision. India's elite in politics, the media, the academia and think tanks have the capacity to re-define the issues and recast the public debate.

There are scores of examples of recent innovations by India in areas of space, computer software, automobile components, new drugs and health care facilities. For example, the performance of Indian space Research Organisation (ISRO) is of global standards. The growing internet penetration in Indian cities and villages is another milestone of progress.

In the wider context of values, "India that is Bharat" gives to her children: a simple living,

strong family ties, and tolerance for other points of view, spiritual quest and respect for ecology. The Constitution of India sanctifies these values and provides a solid framework of 'rule of law' against 'rule by men'.

Hope

Prime Minister in his address to the people of India from the ramparts of the red Fort on 15th of August 2017 has ignited hope that it should be possible for us to build a 'new India' in the next five years between 2017-2022. This would require eradication of poverty and removal of corruption and inefficiency in the implementation of the government plans. Towards this it is imperative to have unity of purpose particularly among the youth of India – of a kind that characterised the Quit India Movement.

The slogan "Sabka Sath Sabka Vikas" is most appropriate. It is and has to be inclusive and in conformity with our cherished values and principles of democracy and rule of law that the Constitution of India enjoins upon the citizens and the government to adhere to. Tomorrow's India will be a country free of the scourges of poverty, hunger and illiteracy.