



# Development of Urban Infrastructure for Economic Growth

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**W**ith a population that has been mounting at an unprecedented rate, coupled with the swift pace of urbanisation (considering the rural-urban migration), lack of infrastructure that has hit most of the cities of India, there exists today a dire necessity for planned development of Urban infrastructure. While this needs to be essentially done to enhance the economic growth of the nation; but it is also imperative for a careful initiation of plans that can work swiftly and produce the desires upholding the aesthetic, sustainable and economic

part of development. The road for India is difficult and challenging considering that the infrastructural development that other countries might have undergone in 100 years, India (due to its huge urban population) would have to do in 40 years. The nation also unfortunately faces a trained manpower crunch, the reason why technology will have to play a very crucial role in such a development.

The proportion of urban population in India has witnessed a considerable momentum over the past 50 years and according to the Indian Ministry of Urban Development (MoUD), it

is anticipated to reach close to 600 million by 2031. Though a large share of India still lives in villages but an increased urbanisation has been seen which necessitates the need to invest in infrastructure in order to improve the quality of life in these urban areas. The quality and availability of infrastructure services goes a major way in establishing high productivity of urban areas. The urban economy (that is heavily dependent on urban infrastructure) is visualised as a bridge between the domestic and global economy, hence the need to strengthen it has increased by



manifolds. Ensuring high quality of public services throughout India will facilitate the full realisation of India's economic potential.

The rapid pressure of industrial development has put many cities into a lull which have not shown corresponding progression to be able to cope up with this development. For building infrastructure, public opinion and their awareness on the kind of city they would want to live in, should be taken through surveys which should be conducted before proposing any developments. On their level, architects and urban planners, who have been undertaking work on proposals for urban improvement need to make their works available for everyone to know and deliberate on the solutions proposed for urban improvement.

## Strengthening Urban Infrastructure in India

India needs to look ahead towards strengthening its urban infrastructure. In the chaos that the nation is facing amidst the burgeoning population and hence the rising housing needs, solutions like planning newer modes of transportation systems especially for congested areas, going vertical to accommodate the increasing

population, and focussing on infra development plans and schemes are the need of the hour. Besides to manage urbanisation, efforts need to be directed towards strengthening the framework for governance and financing and a comprehensive building programme at all levels of the government and an increased investment towards this development should be worked upon.



Terming sustainable infrastructure as the need of the day **Mr Nitin Kumar**, Director & CEO, Fairwood, opines that unlike China, which has shown clear signs of stabilization since mid-2012, there is no clear evidence of recovery in India yet, as delay in implementing necessary reforms, among other factors, has weakened the economy's competitiveness. He feels that besides recent government measures which

are expected to boost economic revival, an additional challenge is that growth must be made sustainable and more inclusive.

Introduction of effective urban mobility remains an integral part of urbanisation. Indian cities don't only need adequate road space for future use keeping in mind the growing number of vehicles on the road, but they simultaneously also need to improve on the existing condition of roads which have been subjected to lack of maintenance over many years. While many road spaces have been encroached by street vendors, commercial facilities and on-street parking, footpaths and cycle tracks need to be made a path of mobility. Individual lanes for different kinds of vehicles on the road should also be considered in the planning. The vehicles can also be accommodated by increasing the width of the roads. One must not forget that these roads cause a lot of distress due to for of innumerable accidents India is plagued with, and most of the people due to the distances in metros especially have to spend a lot of hours on these roads, which if not maintained properly, can be a source of quite a lot of misery to these travellers.

The design of the transport system should be developed keeping the specific features of the city involved since each city differs in area, urban form, income levels, population etc from the other cities. There is a dire need for an integrated master plan since transport planning is also linked to land use planning and thus both need to be developed together. It has been found that the most developed cities of the country, which are already very crowded require swifter and cleaner mode of transportation systems; but the laying of MRTS corridors and metro rails becomes tougher in such situations. One wishes







that such planning of transportation systems is put into order much prior to urbanisation so that they are able to sustain the urbanisation. Alternately, efforts should be made to drive people towards public transportation which can be done by first and foremost enhancing their quality. More space should be allocated to public transport systems. We must learn from the new experiments that are done across the world to achieve the same - one of the examples is of a certain development in Copenhagen where the reduction of lanes (in the city to vehicles) and increasing the lanes to pedestrians, cyclists and bus lanes have led to an increase in the public transportation.

"Migration of large population to urban centres is causing new cities to emerge and existing ones to expand. India must seize the opportunity to adopt green urban planning early on: mass-transport systems should link satellite cities to ports and megacities, and new cities should be eco-friendly and energy-conserving. The Indian Government's recent promotion of dynamic economic corridors between major cities is a step in the right direction but it is moving at snail pace", adds Mr Kumar.



**Mr Ramakant Jha**, Managing Director, GIFT City, one of the most ambitious projects ever undertaken in the Indian Infrastructure space, feels that in order to strengthen urban infrastructure in India, more professional steps are needed and an institutional approach is required in planning and development of infrastructure so that the nation can be ahead of real estate development. For the implementation of such infrastructure, he feels that adequate funding arrangements should be made.

Housing remains an integral part of urban infrastructure. And in the scenario of burgeoning population, to ease off the land pressure, vertical growth seems to be the ideal option

available. However, going vertical also has a number of challenges like the lack of necessary technology and construction expertise, lower FSI, lengthy approval processes and lack of adequate infrastructure - road capacity, water supply, sewerage, solid waste disposal etc. Dwelling further on these challenges faced by developers for high-rise development, Mr Jha adds, "The challenges include lack of adequate provision in Development Control Regulation (DCR) of respective cities, lack of provision of various facilities and safety for such structures and inadequate infrastructure to support high-rise development.

## The Solutions

Reviewing of the existing planning norms currently used in India which have been hugely borrowed from the west and hence contextually don't serve the nation's benefit, should be done. High land values, acquisition costs and the development pressure on land act as barriers for the local planning and implementation authorities to afford the high norms for provision of social infrastructure, amenities and open spaces. Planning norms need to be acceptable and efficient for small towns as well as big cities.

## Government Support

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) launched in 2005 remains to be the single largest initiative by the Indian Government under MoUD targeting the improvement and quality of life and infrastructure in the cities in a planned manner. Though there has been a slow progress in implementing the reforms under this scheme, a significant capacity augmentation and efficiency



gains, specifically in respect of urban transport has been the outcome of implementation of projects under this scheme.

The Government is also making a special effort in emphasising with the States and local bodies to provide provisions of housing for all economic segments of the society so that housing related problems can be solved.



**Mr R.K. Arora**, Chairman & Managing Director of Supertech Limited - a leading real estate developer of the country commenting on the role of Government says, "Urbanization without proper planning for future development and without providing for the infrastructure needed, will cause chaos, extra-

ordinary burden on utilities, adverse impact on the environment, more pollution and discomfort everywhere. There are some thoughtful development agencies which are doing town planning keeping in mind the infrastructure needed for future generations and further development possibilities so that the pressure of growing urbanization is well absorbed. It is also necessary that the pressure of urbanization is less felt on environment and ecology and the development plans are approved with proper precautions".

The development of villages also need to be monitored so that they have proper planning and can be developed independently as secured centres of agglomeration economies and not affix to urban areas of India as chaotic and unplanned settlements - it is essential here also to recognise that some of these rural areas do have the potential to become urban centres tomorrow. The Government has taken out a number of sponsored schemes targeted at the rural sector. These well-meant schemes have helped in stopping the migration from the rural areas.



Mr Kumar while counting the initiatives that need to be taken by the Government includes Incentives for sustainable infrastructure (making it extremely friendly and incentivising the agencies which are making efforts in this direction), conferring of more grants to state/city authorities through JnNURM with better checks and balances to avoid any possible misuse and single window statutory clearance (inclusive of MoEF) to projects and investor friendly policies. Commenting on the outcome of the lack of such policies he assesses, "We can witness the concessionaire opting out of the projects day in day out. Reliance Infra opting out of Airport express is a recent example. There are good competent people working in different departments of the Government, however they are working in silos; we need better and effective coordination for a fast project roll out". He acknowledges the JNNURM as a good step towards the repair and replacement of old infrastructure especially in old cities.

However, there is much that the Government still needs to do. The urban local bodies (municipalities, nagar panchayats) should have a clear definition of their roles and functions, should be accepted and strengthened as local self-government bodies, be entrusted with independent financial resources and be given the autonomy to take decisions on investment and service delivery. Also, many funds made available through the programs taken out by the government for increasing the basic infrastructure has largely gone to only a few of large cities, having benefitted only the high and middle income range.

## Encouraging the PPP model

The PPP models structured around a robust revenue model (user charges, viability gap funding and targeted





subsidies) are not only able to offer a good prospect of return on risk capital but they also lead to better management of urban services. PPPs which in the urban sector are still at a nascent stage need to be structured well to obtain the above. They are a lucrative business proposition to attract FII. Also, with PPP's come many advantages of enhanced supply of infrastructure services, better project designs, advanced technology and construction, transfer of project risks to the private sectors and delivery in time.

Adding on the funding for infrastructural\* projects, Mr Kumar says, "We need a more conducive environment for potential concessionaire. Improvements in the investment climate are vital. India needs to expand dramatically the sources and volume of available infrastructure financing. This will not be possible without private-sector participation, which requires, in turn, a business environment that ensures adequate return on investment, transparency in procurement,

and high-quality governance and regulation. Clearances even for small issues should not be getting stuck in the bureaucratic cycle. By boosting the credit ratings of infrastructure projects via credit enhancements, this facility will allow pension funds and insurers to invest in infrastructure projects. India Infrastructure Finance Company Limited (IIFCL) and Asian Development Bank (ADB) are already jointly working on it."

## Technology

Technology will also definitely play a major role in the urban infrastructure development of the nation. While leading to better and faster construction, technology has made many things possible - like PEB and precast building solutions, advanced formwork systems, building materials like glass and steel which can be used for sustainable construction and newer and more efficient machinery in order to gain a higher performance.

## Conclusion

In spite of the fact that urban infrastructure has witnessed a lot of

developments in the recent past, it still faces challenges of paucity of funds, long gestation period of infrastructural projects, lack of importance given to basic needs like drinking water, sewerage management, drainage etc, the scarce availability of land and the disparity shown between larger cities and smaller towns. These problems need to be fixed as soon as possible in order to see proper development of urban infrastructure. Key areas of intervention for this improvement will include better transportation infrastructure, walk ability and a policy on parking; improved planning at regional, city and area level; solutions for housing; cautiousness towards urban services like sewerage, drainage and water supply, power distribution, solid waste management; preserving heritage precincts and upholding social infrastructure (leisure spaces and a focus on common spaces). Urban infrastructure projects should not be conceived as standalone projects only and hence an integrated approach is required in the total planning and development.