

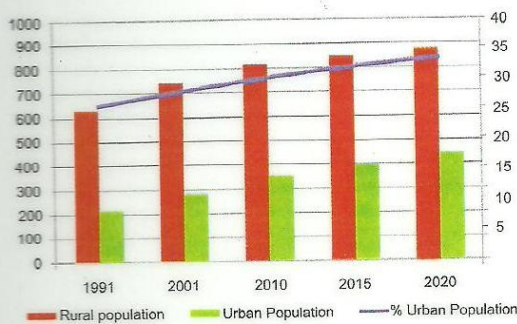
defining cityscapes

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With the urban population growing at a scorching rate, the need for commensurate supporting infrastructure cannot be understated. With the right political will and a colossal amount of investment, our cities can be transformed visually and functionally.

Almost one third of India lives in its cities – a proud statistic for a nation with a population of 1.2 billion. The 'life in a big city' dream fascinates millions and year after year the number of 'migrants to cities' plot an upward graph. As per a report by McKinsey, by the year 2025 38% of Indians will be living in urban India.

Trend in Urbanization Past, Present and Future



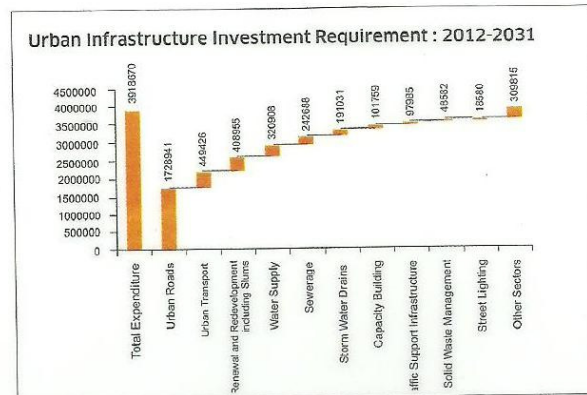
Source : ICRA

But here's a thought: Will cities still be as attractive as they seem, without all the urban infrastructure that make the lives of their residents so comfortable? Probably not. Cities in India are already overcrowded and bursting at the seams. All the four metros in India, feature among the 15 most densely populated cities in the world. Mumbai and Kolkata top the list while Chennai and Delhi make it into the top 13 most densely populated cities.

Urban infrastructure, such as safe public transport systems, roads, flyovers, bridges, utilities like water and gas, electricity, etc. needs to be stepped along with the rising urbanization. In fact, it is urban infrastructure that literally defines cities. People know Venice for its waterways, Paris for its bridges, London for its big red buses...

And while it's all very well to have signature infrastructure, today, in cities and towns that are teeming with people, adequate urban infrastructure becomes not just a luxury but a basic necessity. To augment residential and office spaces in cities, vertical or concentric growth is the obvious answer. But suitable related urban infrastructure too has to compliment the vertical and concentric growth to preempt a total collapse.

According to a study by India Infrastructure and Urban Development Co Pvt Ltd in March 2011, almost Rs 40 lakh crore worth of investment would have been required in urban infrastructure between 2012 and 2031. Only a mammoth investment, along with a strong political will, can transform our cities and set them at par with international standards.



Source: Report by India infrastructure and Urban Development Co. Pvt.

Largest cities in the world ranked by population density

Rank	City / Urban area	Country	Population	Land area (in sqKm)	Density (people per sqKm)
1	Mumbai	India	14,350,000	484	29,650
2	Kolkata	India	12,700,000	531	23,900
3	Karachi	Pakistan	9,800,000	518	18,900
4	Lagos	Nigeria	13,400,000	738	18,150
5	Shenzhen	China	8,000,000	466	17,150
6	Seoul/Incheon	South Korea	17,500,000	1,049	16,700
7	Taipei	Taiwan	5,700,000	376	15,200
8	Chennai	India	5,950,000	414	14,350
9	Bogota	Colombia	7,000,000	518	13,500
10	Shanghai	China	10,000,000	746	13,400

Source: www.citymayors.com

There are magnificent infrastructure projects that have made their mark on urban landscapes – they are sights to behold and yet they add immense value in terms of facilitating life in the city.

The Bandra-Worli Sea Link



A perfect example of how new infrastructure development can ease the pressure on existing infrastructure, the Bandra-Worli Sea Link (BWSL) reduces the distance between Bandra and Worli from 8 km to just 5.6 km. The time saving that it offers is far more impressive. A trip between these two suburbs could take anywhere between 45 to 60 minutes during peak hours; it now takes less than 10 minutes at any time of the day or night. At a whopping cost of Rs 1,600 crore and after 10 years of effort, this bridge is used by over 40,000 vehicles daily. The alternative route – the Mahim Causeway – which had to accommodate an average of 1,20,000 cars on a daily basis before the BWSL was built has been considerably unburdened too.

BSWL, effectively a cable-stayed bridge, was commissioned by the Maharashtra State Road Development Corporation and built by Hindustan Construction Company. It was inaugurated in June 2009 and named after India's late Prime Minister Rajiv Gandhi.

The Delhi Metro Rail



Commuting in Delhi by public transport was a formidable mission until the advent of the Delhi Metro Rail (DMR). This Metro has not only afforded its passengers a comfortable means of getting around the city, it has effectively linked the city of Delhi to suburbs like Gurgaon, Ghaziabad and Noida in the NCR region.

With the distinction of being one of the largest Metro networks in the world, with a reach of 189.63 kms, the DMR boasts of linking 142 different stations, of which 35 are underground. On an average, the DMR is used by 1.6 mn commuters daily. Apart from the sheer convenience it offers, it has been instrumental in reducing the pollution level in the capital. It is the first Metro Rail Project in the world to be certified by the United Nations and receive carbon credits for reducing greenhouse gas emissions. Estimates suggest that it reduces pollution levels in the city by 6.3 lakh tonne every year.

Built and operated by the Delhi Metro Rail Corporation Limited (DMRC), this project has been assisted at various stages and in various capacities by companies such as BEML, L&T, Alstom Projects, HCC, Pratibha Industries, ITD Cementation and Bombardier, etc.

Integrated Townships



In contrast to older cities, including the original four metros, wherein planning took place either sporadically or in a totally different era, a new breed of sleek, well planned townships are emerging. The lack of open spaces and public utility spaces like gardens, community centres, sports centres, etc. in older cities has led to a deterioration in the quality of life there. Taking a leaf out of the learning book of these cities, infrastructure companies have developed the concept of large township projects, which offer a better quality of life. Along with better infrastructure, they promise uninterrupted supply of utilities like water, electricity etc, and supreme security systems. They also offer additional facilities like, schools, hospitals, movie screens, shopping malls etc.

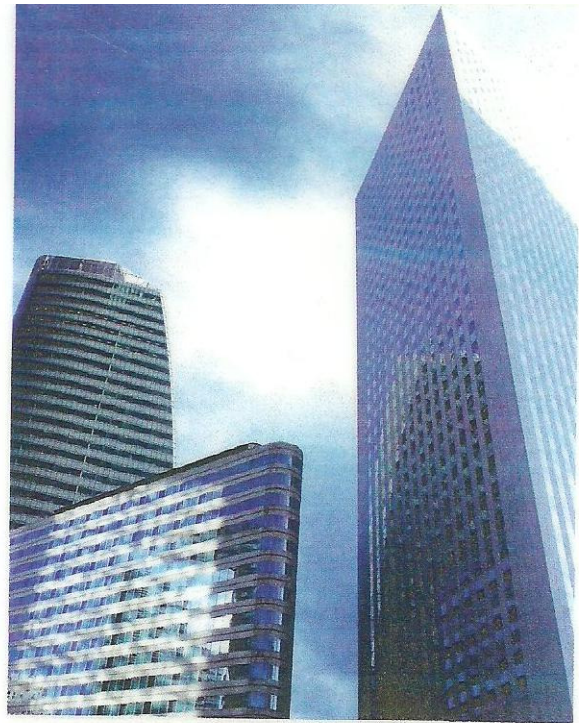
The Magarpatta Township Development and Construction Company Limited is one of the early movers in the business of building of integrated townships. The company's first project – Magarpatta City – is a unique project in itself. It has been promoted by farmers who owned the land on which the Magarpatta City now stands. Spread across 400 acres, it is one of the most successful integrated township projects in India.

IT Parks and Commercial Infrastructure



With the tremendous boom in the Indian software sector in the 1990s, a very basic need for office space, internet connectivity, etc. were felt. These could easily have become bottlenecks in the progress of the sector, despite the huge demand and paying capacity of the sector. Traditional office spaces and infrastructure did not suit them due to the peculiar nature of the IT business. This gave birth to the developing of special zones which would cater to the demand of IT and ITES companies.

HITEC City (Hyderabad Information Technology and Engineering Consultancy) was a leading initiative in this area. It aimed at building a zone dedicated to the IT and ITES industry. The project was initiated by L&T ECC along with the Andhra Pradesh Industrial Infrastructure Corporation Limited. Located at a driving distance of 20 minutes from the city of Hyderabad, the HITECH City is a popular destination for major IT companies associated with the city. The who's who of IT, from Microsoft and Oracle to Accenture, General Electric and Qualcomm, all have their offices in the HITECH City. Along with office spaces, this park also offers other facilities such as an international convention centre and an exhibition centre of international standards.



Creating the future

Many recent urban infrastructure projects are a joint effort between public and private companies. The combination of Public and Private enterprise works well in case of Urban Infrastructure as there are a number of bottlenecks which neither can resolve single handedly. For instance, ensuring the availability of land for projects like roads, bridges, railways, etc. is often facilitated by the government-backed entity and the execution is undertaken by a private partner. The involvement of government ensures that the project commences and progresses smoothly and the private hand ensures the quality and timely completion.

But like all else, it's easier said than done. Building consensus, acquiring permissions, managing cost over runs and delays in the projects at the planning and execution stage are challenges that crop up. But development of cities is unthinkable without development of adequate infrastructure. As in the words of the noted Indian economist, Dr. V. K. R. V. Rao, "The link between infrastructure and economic development is not a once and for all affair. It is a continuous process; and progress in which development has to be preceded, accompanied and followed by progress in infrastructure, if we are to fulfill our declared objectives of generating a self-accelerating process of economic development."