



## HOW BIG IS TOO BIG - MUMBAI ?

Uttam Jain

Euphoria of metamorphosing Mumbai into The Shanghai of India died a sudden death on 26th July 2005. On this day when Mumbai received 22 inches of torrential rain, the entire city, particularly Mumbai's low-lying areas and the extended suburbs were completely inundated into neck deep water, rendering most city areas lifeless and incommunicado. Mumbai sitting on the sea-shore, got paralyzed. All modes of transport: rail, road, air, telecommunication, electronic linkage alongwith intercity communication, wireless systems were all clogged and disrupted. The Mumbaikar's normal life went into a spin. 850 persons lost their lives to this downpour.

Even as recently between 3rd to 5th August 2007, within 36 hours rain measuring 8.2 inches and it

continuing beyond, Mumbai experienced weather blues. The monsoon fury of 26th July 2005 was revisiting an unprepared Mumbai. As reported, mercifully not more than two lives were lost preventing the greater tragedy. For the city fathers it became unmanageable.

The metropolis that was spearheading India's globalisation turned lifeless since all activities in the city ceased. The city as a biological organism died an instant death. For the city that was unconcerned about anything else, but driven by material mores and the money making motto, this was indeed a wake up call; Strict no-no to the mindless exploitation disregarding the city's geographical and the physical endowment that was nature's gift to Mumbai. Few with their 'greed

and grab all' attitude with ruthless abuse of nature ignored the fact that man is a part of nature and not nature itself. He could ill afford to go against nature.

How did it happen?

Where had the citizens of Mumbai gone wrong?

Let it be known that Mumbai is an island city. The city's total landmass on which it stands is very limited. Under pressure from many directions it could not grow as a robust organic whole. Being on the edge of the water front its geographical boundaries got precisely marked.

For the present the surface area of the city

admeasures 466.35sq. kms. Historically, often due to land reclamation from the sea some developable areas were added. This process is on going even today, infact, demand today is out stripping the land supply in the city limits.

Even when out of 1800 acres of land presently in possession of the Mumbai Port Trust, out of which 800 acres is made available for the city's betterment and added to the housing stock on the eastern city front, it is neither going to weave better in to the city's fabric, nor will it alter the city's overall make up. Tragically the opportunity offered by Mill land areas for qualitative improvement of the heartland of Mumbai got lost due to shortsightedness of the citizens of Mumbai.

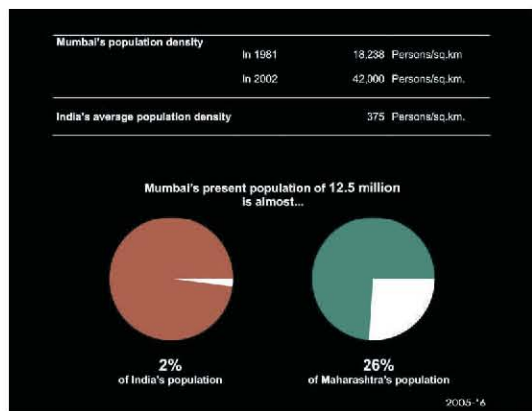
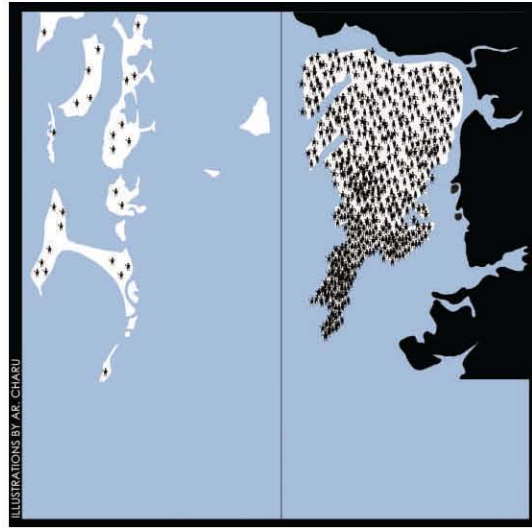




Now let us take stock of the following while forecasting the future of Mumbai

Going back a little into history in the year 1661, the island's combined population was 10,000. In the year 1901 it increased to 8,12,912. This further rose to touch the figure of 20,66,902 by 1951. It went to 41,52,056 in 1961, which by the year 2000 reached an astonishingly high figure of 95,00,000. This trend did not stop there. The recent speculative estimate puts Mumbai's present population having risen beyond 1,30,00,000. It is believed that migration from up country regions seeking jobs in this city is one of the crucial issues that haunts the city fathers. One is inclined to imbibe that this type of migration from the up country region and the hinterland is the core issue for the deteriorating conditions of the city. This belief however has been belied by Ms. Sudha Deshpande in her demographic survey of 2004. Her survey unhesitatingly reveals that Mumbai, against common belief, has slowed down on its population front. Due to up country influx of migrants, as compared to the other Maharashtra towns, Mumbai's rate of population expansion between the years 1991 to 2001 has slipped down from 20.41% to 20.03%. Surprisingly the main factor for population increase in Mumbai is the accelerated rate of child birth within the city itself. It was increasingly painful to learn, while attending seminars on Mumbai's future, seldom do speakers touch upon the bane of excessive population and its ill effects on the quality of life in Mumbai. It was citizens like late J.R.D. Tata, the eminent industrialist of India only, who showed grave concern about India's unchecked population expansion. He cautioned that if it goes uncontrolled, this problem will be the biggest stumbling block in the nation's developmental and welfare programmes.

Returning to the terrestrial limits of the city, one is astonished to realize that the city has the tiniest landmass as its foot print. Yet it is this diminutive land piece that holds the highest number of people anywhere; between 42,000 to 50,000 per sq. kms. Mumbai equally has the dubious distinction of



# City infrastructure creaking, reforms needed, says panel

Public-pvt partnership projects for redevelopment of inner city areas: ARC

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**S**HANGHAI-DREAMING Mumbai has received a wake-up call from the Second Administrative Reforms Commission (ARC)—“the recent incidents of flooding and waterlogging in Mumbai have highlighted its creaking infrastructure”.

In its report on local governance presented to Prime Minister Manmohan Singh in New Delhi on Tuesday, the commission said “in addition to economic policy changes...”, Mumbai needs urgent reforms “for world class infrastructure and amenities”.

Pointing out that “the rising influx of migrants is putting pressure on land and services” and Mumbai is set to become the second most populous city in the world after Mexico City by 2020, the report says “less than a quarter of the population have the physical and financial access to good housing”, and the shortage of good housing makes it one of the most expensive cities in the world”.

The report, at the same time, points out that Mumbai is the 10th most important financial hub in the world today. Recommending a remedy for the megacity's ailing infrastructure, the commission proposes: “Public-private partnership projects for re-development of inner city areas need to be encouraged through a transparent and well structured regulatory regime of incentives and penalties”.

Agreeing with the suggestion, chairman and country head, Joneslang and Lassall, Anuj Puri says while transparent public-private partnership is needed, lot more needs to

## ABOLITION OF OCTROI, PROPERTY TAX REFORMS

The report has also recommended abolition of octroi and reforms in property tax amongst other issues. South Mumbai MP Milind Deora said the report has thrown up lot of interesting issues to debate. “Mumbai and the state government are currently in the process of making these reforms. This is for the first time that a Central government commission is supporting them,” he said.

**ABOLISH OCTROI:** The report says octroi should be abolished but at the same time state governments should evolve mechanisms to compensate local bodies for the loss of revenue. Maharashtra collects over Rs 5,000 crore in octroi with Mumbai's share being more than Rs 3700 crore. Then state is moving towards abolishing octroi.

**PROPERTY TAX REFORMS:** The report says state governments should ensure that all local bodies switch over to unit

area or capital value method for assessment of property tax in a time-bound manner. Mumbai has Annual Rental Value system. The state government is considering adopting capital value based system, although opposition from politicians, particularly in south Mumbai continues.

**MAYOR:** The report says the Mayor should be the chief executive of the municipal body while the commissioner should perform the functions delegated to him/her. “The mayor should be directly elected by popular mandate through a city-wide election and appoint mayor's cabinet of elected representatives which will exercise executive authority on matters entrusted to them.” London Mayor Ken Livingstone on his recent Mumbai visit had said that Mumbai needs a directly elected mayor who will have more executive powers.

be done for making Mumbai an international financial hub. “The city has a very strategic position in the country due to the time zone between London and Hong Kong; the stock market and corporate governance ranks in the top three in the world,” he says.

Municipal Commissioner Jairaj Phatak says the BMC is already taking steps to put its infrastructure in place. “The Central government has sanctioned funds for BRIM-STOWAD project which will prevent flooding like in 2005,” he says.

Phatak says the population of the city is 1.3 crore at present and increasing: “The rising population is throwing challenges and even the demand for resources is increasing. We are trying to make the best of the bargain.”

Former municipal commissioner

D M Sukthankar said the ARC report presents a realistic picture. “Apart from projects under SRA for slum-dwellers, there is no housing for the middle income group. If conditions are not reformed, the dream of becoming a world-class mega city will just be an exaggerated dream,” he said.

Puri says Mumbai needs re-location of its existing financial hub. “The requirements for being a world class financial hub are very stringent. Priorities should be laid down and measures should be taken to de-congest the city by creating a new financial hub in may be Navi Mumbai, where infrastructure can be created newly instead of upgrading the existing in the city which will be a tough job,” he said.



supporting Asia's largest slum, Dharavi, that is spread over about 216.11 hectares comprising 60,000 tenements within the central city area

This is 20.23% of the total slum area which is 0.46% of the entire landmass under greater Mumbai. As recorded its population varies between 4,70,000 and 5,93,459. As per census in the year 2001 the density of Dharavi touched 1432 persons per hectare. But in the survey carried out by SPARC it reaches the figure of 2790 PPH of the city area. Though appalling for its inhuman conditions, with some comfort one notes, that at the community level Dharavi is vibrant and is thriving on its economic fronts. Perhaps the planners may take a lesson or two in improving the living conditions of Mumbai's by restructuring the city's basic amenities and improving the quality of infrastructure more pragmatically.

While Dharavi's land is spruced up, let it add more green open spaces and recreational grounds, which is acutely in short supply and hurts the city in general. For instance, while globally the ratio of green is 3 to 4 acres per 1000 dwellers, Mumbai miserly provides 0.03 to 0.04 acres per 1000 of its population.

In addition, in the matter of providing infrastructure Mumbai lags behind. In many ways the city's demand for water, electricity, gas, proper sanitation, good drainage system for the city's burgeoning population, schools, hospitals, and the presently highlighted security concerns are visibly inadequate. Civic bodies, as knee jerk solutions, are taking short measures and providing these in a piecemeal manner only. As a developmental strategy it is proving a failed vision. The holistic approach is what is needed.

While addressing these issues what comes to mind is WHAT SHOULD BE THE RIGHT SIZE, SHAPE AND FORM OF Mumbai? Should it be limited geographically by defining its territorial boundaries? Or should it remain bigger and become a mega city? On the other hand is it feasible to check migration from the rural to the urban areas- even if it calls for enactment of a piece of legislation, as once, unwittingly put forth to the city fathers as a strategy in Mumbai by the eminent

planner architect of Greek origin Dr. Doxiadis? Addressing the Indian audience in Mumbai, Doxiadis sarcastically recommended that all those who have been permanently residing in the city be painted green and those visiting the city from outer areas be painted red. So that at every fall of night the red ones be driven away from the city. This is not only undemocratic but draconian.

Returning to the physicality of Mumbai, its geometrical configuration and geographical endowment, I am inclined to recall what Prof. Jayant Narlikar astrophysicist of international repute in his article "Yeh hai right size baby!" (1) elucidates: Take a sugar cube with linear size typically of one centimeter. The surface area of its six faces is one square centimeter, while its volume is one cubic centimeter. Now suppose you double its linear size to two centimeters. The area of its face is now increased to two times two, that is to four square centimeters, where its volume is increased to two times that is to eight cubic centimeters. The volume increase (eight fold) is thus larger than the area increase (four fold). This is the general mathematical rule observed by nature. When sizes increase in the same scale, volume grows faster than area. In short, the larger the body, the larger is the ratio of its volume to surface".

'Even man-made systems are subject to influences that are size-dependent and there is a right size for each system. Expanding it further he strongly advocates that it is time we learnt from nature that 'right size is beautiful' is a good motto to adopt, especially when we are tempted to grow too big for comfort.

Architect Charles Jencks in his article titled, 'How big is bad?' (2) argues that big is not necessarily better. In his belief he opines that bigness almost invariably ends in boredom, dull and even less creative.

In this regard it may not be misplaced to refer to what the Egyptian architect Hasan Fathy, well known more for his radical views, propagating consumption of traditional building materials and use of construction methodology locally practiced. He states, "It is worth

methodology locally practiced. He states, "It is worth noting that smaller units (dwellings) promote community harmony and bonds of togetherness. Equally it strengthens emotional ties among the people. Larger units breed conflict and violence and are the product of essentially a mega scale that is suitably provided by the mega structural units only. High rise promotes anxiety and fear, not friendship. All in all, human encounter is discouraged by stacking families in vertically placed dwellings." The children dependent on parental care have no easy space in taller buildings.

In the end the skyscrapers are power centric and autocratic in their social temperaments. On the other hand, following the principles of low rise high density is one that remains sensible and proven concept of desirable urban planning. This approach is equally cost effective, hence affordable in India's urban context. As an example Khotachi Wadi in central Mumbai being people centric, humane and socially & culturally bearable even in today's context demands a relook at its overall fabric.

Again as a business district it is worth looking at; that of Ballard Estate. Its high density approach with uniformly sized buildings (without being monotonous) can be certainly an example to be followed for development programmes in future, as against Bandra - Kurla Complex that remains without

a human face. It is an automobile oriented development where the man on foot has no place. Climatically it is energy guzzling growth only. Currently there is a move to double and enhance further the present F.S.I. of 2 to 4 at the Bandra-Kurla Complex. This as suggested is to shift the gravity of Development and price index from south to the north. This needs to be reviewed seriously before it is too late.

Revisiting the dreams of protagonists who believe in turning Mumbai into The Shanghai of India, it is easier said than done. Are Mumbai's able to earnestly emulate China's one time resolve of one couple one child to curb the population explosion at the national level? In India for the present socially, administratively or politically there seems to be no desire to follow in China's foot steps. Today, India is at a low level of such preparedness.

When reference is made to China's Shanghai, which aspect of it is in mind? Is it the visual, physical, social, infrastructural, cultural or the economic aspects?

By the way why should Mumbai become like Shanghai? If China cannot emulate India, is it sensible for India to follow in the foot steps of China? Let Shanghai remain Chinese and Mumbai Indian. There is no need to cry for making Mumbai like Shanghai. Mumbai need not discard its Indian personality.





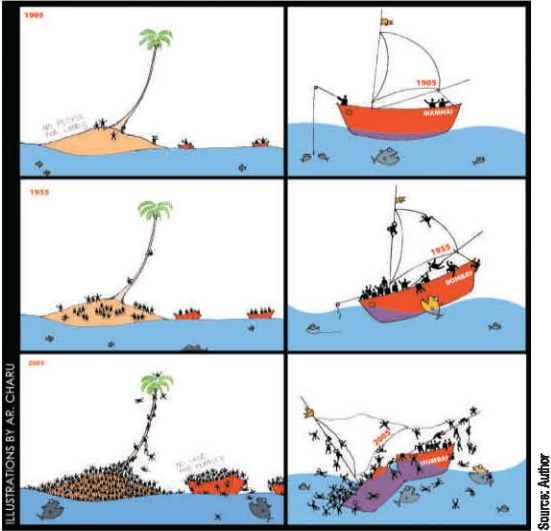
While economically moving fast, at certain levels it is inching at snail's pace. In the absence of a comprehensive planning perspective and without a clear vision one is intrigued to know, when decisions are taken for Mumbai's tomorrow on an adhoc basis. For example, after more than a decade today, there is no tunnel constructed beneath Malbar Hill, though the cross-over bridge is in position on Nepeansea Road to the west. To cross what?

At the end one ponders if Mumbai should go from big to bigger? Why not keep it of the right size? Is it wise for Mumbai to turn towards the sea and start growing into the water? Or can it be that Mumbai be surrounded by many mini Mumbais? Satellites then providing comparable civic facilities and social amenities? This may be possible by opening of the hinterland on the mainland and reorienting the region's growth pattern in that direction. In such cases provision of all urban comforts added with comparable quality socio-civic life style, enticing people to move there may be one answer. This in turn presupposes that all this has to be supported and balanced by opening up newer job centers as well.

Relook at Navi Mumbai, presently put on the back-burner to de-congest the main city is one more sensible approaches. Of course, there are additional solutions as well. At the end, this piece is to throw up more questions than answers.

Here it may be wise to consider how big Mumbai should be? There is no readily available prescription. In all earnestness Mumbai cannot be viewed from any single vantage point. Realistic solutions have to emerge from within. If one has the determination and the political will propped up by every Mumbaikar's co-operation, there will be light at the end of tunnel.

Mumbaikars ought to be concerned more for the quality and comfort level in their daily living than competing for its size, shape and form, globally.



# Plans afoot for new, new Mumbai

LALU'S LARGESSE WILL QUICKLY BE OVERWHELMED AS THE CITY GETS READY FOR TOMORROW  
**10 TIMES LARGER THAN TODAY**

Ketaki Ghoghe and Rajendra Aklkar  
Mumbai, February 27

EVEN AS Railways Minister Lalu Prasad Yadav approved Rs 4,000 crore for the Mumbai Urban Transport Project (MUTP)-II on Monday, planners are already at work trying to stretch the city's boundaries. More specifically, they are drawing up plans to better connect the city with the hinterland — home to nearly 19 million and the world's second largest urban agglomeration after Tokyo.

"After MUTP-II, we have already started looking at connectivity in the far-flung regions of Mumbai. It is the logical next step," said Sanjay Ubale, secretary (special projects).

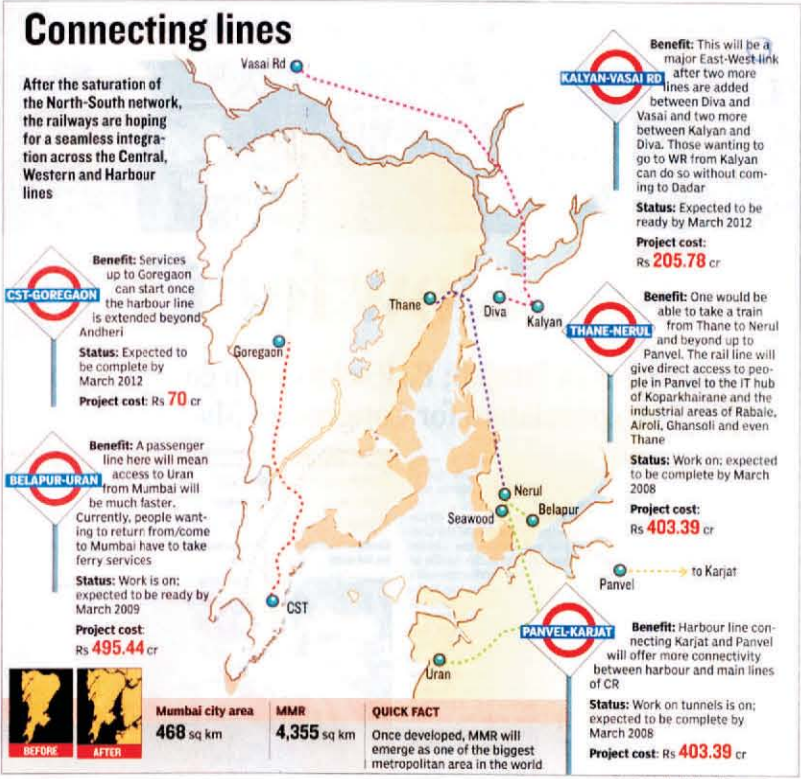
These transportation projects would eventually lead to a new emerging Mumbai extending 3,887 sq km further to encompass seven municipal corporations and 11 municipal councils including the satellite townships of Navi Mumbai, Thane and emerging centres like Uran (as proposed in the Special Economic Zone).

On Tuesday, a delegation from the Japan Bank for International Co-operation (JBIC), anticipating investment opportunities here, met Chief Minister Vilasrao Deshmukh and senior officials from the government. On Monday the JBIC team had visited officials of the Mumbai Metropolitan Region Development Authority (MMRDA) to get an overview of the proposed Mumbai Metropolitan Region (MMR) development plan estimated at a whopping Rs 2,28,000 crore.

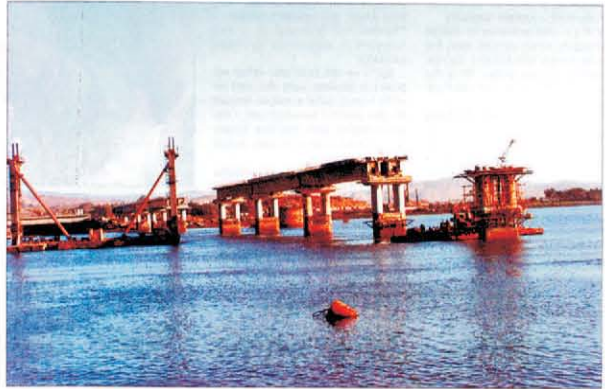
"JBIC" has expressed willingness to finance a pilot project after looking at its viability. Around 15 infrastructure projects are estimated to cost around Rs 30-35,000 crore (preliminary planning)," said T. Chandrashekar, commissioner, MMRDA.

He said MMRDA would have a clearer picture after Canada-based Lea Consultants submits a transport plan with solutions next month. In 2005, Lea Consultants was asked to carry out a Comprehensive Transport Study. Anticipating growth in the MMR region, the railways have already begun horizontal connectivity of the entire region. For instance by 2008, when some of these projects are ready, you will be able to reach Panvel from Thane in 60 minutes by train.

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**KARJAT-PANVEL** The Karjat-Panvel line (left) will be upgraded for passenger traffic.



**BELAPUR-URAN** The bridge for the Belapur-Uran rail link is under construction.