



Formation of urban oasis and its repercussions
Soul of Mumbai

A woman at work, in the winding alleys of Dharavi

The complexities of economy in developing countries are invariably changing due to centralization of planning and occupation. These bring about a struggle between the positive development and its negative, hazardous results on the functioning of the city. A city is born due to its potentials of trade, scope for occupation and education, and global market relations in the world economy. But this also creates an attractor point like a black hole which consumes everything around it due to the potentials to sustain huge mass of people and their livelihoods. Sooner or later, the results into an inevitable migration into city's from all directions thus bursting the housing, educational and occupational bubble. It gives rise to extreme density and congestion transforming cities into most unsustainable places to live in. One of the major products of this centralized developments are formation of informal housing systems leading into formation of expanding slums and on the contrary, migration of people away from city centre to live a better life and travel to city centres for occupation.

1. **Outside to inside** - Rural population migrating to cities in search of occupation
2. **Inside to outside** - Urban population living away from cities and commuting daily to city centres for occupation.

Outside to inside

There is parallel economy unknowingly making a massive impact and creating shifts in the market of every developing nation. This economy belongs to the unrecognized and illegal businesses which are inevitable or rather unseen but always prevalent. To comprehend how it brings subtle or powerful change in the economy of society, there is a need to identify these occupations based on their magnitude of impact. India is a rising economic power, even as huge portions of its economy operate in the shadows. Its 'formal' economy consists of businesses that pay taxes, adhere to labour regulations and polish the country's global image. India's 'informal' economy is everything else: the hundreds of millions of shopkeepers, farmers, construction workers, taxi drivers, street vendors, rag pickers, tailors, repairmen, middlemen, black marketers and many more.

Densely populated urban areas characterized by poor-quality housing, a lack of adequate living space and public services, and accommodating large numbers of informal residents. Moreover, slums do not always seem to be a temporary phenomenon of migration to cities: in many countries slum areas have been growing for decades, and millions of households find themselves trapped in slums for generations. This might suggest that today's slums pose a problem of a different nature: because of multiple market and policy failures, severe governance and coordination problems that hinder investment, and unsanitary living conditions affecting the dwellers' human capital. However, Despite tremendous variations across slums, issues common to all slum settings are a lack of adequate living space, insufficient public goods provision, and the poor Quality of basic amenities, all of which lead to extremely poor health and low levels of capital income.

The question is do slums keep people in poverty or helps them get out of it?

It is important to understand: about one-third of the urban population of developing countries (860m people) live in them. Rural migrators seeking fortune in cities do experience a growth over time or they are trapped in stagnation of misery? Ideally, these informal settlements should be responsible for growth of economy of people inhabiting them but the outcome of such formations are disastrous, away from the ideology of living a well-balanced life with capital, hygiene and security. One such debate is clearly seen in Dharavi, one of the world's largest informal settlements, housed with both residential and industrial sector of society. Often referred as a city (Dharavi) within a city (Mumbai), dharavi measures up a tremendous contribution to the parallel economy of the metropolis, most of which does not account to bringing any social development in the locality because of over population.

Dharavi- In the labyrinthine slum known as Dharavi are 60,000 structures, many of them shanties, and as many as 1 million people living and working on a triangle of land barely two-thirds the size of Central Park in Manhattan. Dharavi is one of the unique settlements bursting with million small occupations supporting million families. Started off as a fishing village outside Mumbai as the city grew dharavi became a slum area on the northern outskirts of the city, but as the population boosted Dharavi squared in the middle of the city surrounded by the opulent city.



The old becomes new in the hands of laborers, who repair used cooking oil cans for resale inside a steamy warehouse.



Using the space between municipal water pipes to pound old paint chips into fine powder, which will be reconstituted into paint.

Improvising settlements and not transforming character

Answering the question about betterment of human life in slums, in comparison to earlier images of Dharavi, It is obvious that the inhabitants have upgraded their houses by themselves without any help from organisations or slum rehabilitation programs. After becoming more established in Dharavi, the families have used their money to build their houses in concrete and improve their living conditions in small, but significant steps. Originally, most of the houses were fragile structures, and hardly sustainable. Also, most of the families extended their houses using each and every little space around them. The borders between public and private are hard to define. Dharavi is thus not only overpopulating but also undergoing inward expansion. Economic conditions which are observed to be improvising in small steps need to be aided by government organizations in the correct manner for more effective results.

In many ways, the battle over Dharavi is a battle over how India sees itself and the image it wants to project as a rising power.

Inside to outside

For large cities with high economic consumption and produce, worst phenomenon that has happened is the suburban sprawl. By suburban sprawl, I refer to the reorganization of the for the automobile use extending miles to connect different outskirts of the city center. Automobile that was once an instrument of freedom has become a gas-gulping, time-wasting and life-threatening prosthetic device that many Mumbaikars need just to live their daily lives. Half the world is living in cities and even more extending their lives in the outskirts and spending together exuberant amount of money just to travel from home to office on a daily basis. It is a sheer waste of time, money, resources and ads to congestion, pollution and hazardous situations. Cities need to be more decentralized and walkable to save energy and technology on commuting one place to another. But design solutions cannot be easy and have to be learnt from the economists, the public health professionals and the environmentalists.

Working families, which are defined as earning between 3-5 Lakh rupees a year in Mumbai are spending more now on transportation than on housing, slightly more, because of this phenomenon of finding homes further and further and further from the city centers and from their jobs to live a healthier life, so that they're locked in this, two, three hours, four hours a day of commuting.

Example of Portland as a city for biking and walking

Portland made a bunch of decisions in the 1970s that began to distinguish it from almost every other American city. While most other cities were growing a vague alternate solution of sprawl, they instituted an urban growth boundary. While most cities were reaming out their roads, removing parallel parking and trees in order to flow more traffic, they instituted a skinny streets program. And while most cities were investing in more roads and more highways, they actually invested in bicycling and in walking. And they spent 60 million dollars on bike facilities, which seems like a lot of money, but it was spent over about 30 years, so two million dollars a year -- not that much -- and half the price of the one cloverleaf that they decided to rebuild in that city. These changes and others like them changed the way that Portlanders live, and their vehicle-miles traveled per day, the amount that each person drives, actually peaked in 1996, has been dropping ever since, and they now drive 20 percent less than the rest of the country. The typical Portland citizen drives four miles less, and 11 minutes less per day than they did before.



Main vehicular roads in Portland segregated into further smaller bicycle ways and broad sidewalk along with landscape to facilitate sustainable commute.

“An economist Joe Cortright did the math and found out that those four miles plus those 11 minutes adds up to fully three and a half percent of all income earned in the region.” All the money saved in transport is invested in homes to improve lifestyle. On the one hand, a city saves money for its residents by being more walkable and more bikeable, but on the other hand, it also is the cool kind of city that people want to be in these days.

Inside to outside

Mumbai, the sprawling megapolis spread over 600 sq km, has seen its population grow at a rate which is 2.5 times that of the country in the past 100 years. Mumbai's population has grown by 983 per cent from 11.48 lakh in 1911 to 1.24 crore in 2011. As the city is landlocked by water on 3 sides, expansion is not a viable solution. The density rises as the building soars higher and higher reducing the available ground footprint per person. The density of Mumbai now is 29,650 people per square kilometre in comparison to Portland which is 4375 people per square kilometre.



With the soaring land prices, people move further and further from the city and travel to work daily investing 2-3 hours of time daily. Mumbai streets are bustling with vehicles and pedestrians, where the narrow sidewalks are never sufficient for the population on street and so are the wide roads perennially insufficient due to enormous use of private vehicles.



A daily scene at Mumbai railway stations where thousands of passengers attempt to board a crowded train to commute to their workplace.

Inside to outside

Facts: Mumbai, the sprawling megapolis spread over 600 sq km, has seen its population grow at a rate which is 2.5 times that of the country in the past 100 years. Mumbai's population has grown by 983 per cent from 11.48 lakh in 1911 to 1.24 crore in 2011. As the city is landlocked by water on 3 sides, expansion is not a viable solution. The density rises as the building soars higher and higher reducing the available ground footprint per person. The density of Mumbai now is 29,650 people per square kilometre in comparison to Portland which is 4375 people per square kilometre.

About a two third of Greater Mumbai's population lives on the northern side of the island, with more than two-thirds of the jobs located in the southern finger. This creates a massive shift of people travelling daily to work ending up consuming valuable amount electricity, natural gas and other resources and increasing pollution and dependency on higher needs of infrastructure to commute in fastest ways.

Conclusion

We observe that the serious environmental implication of continuing metropolitan decentralization is increasing the rate of motorization. Separation of urban activities demands higher levels of physical mobility and expensive infrastructural needs. The solutions to controlling the haphazard growth of Mumbai has to address both inter-land issues like migration of new people and intra-land issue like congestion, centralization and political governance. Dharavi, sitting on a high value land needs to be sensitively designed to allocate the inhabitant an efficient model of architecture comprising both residential and industrial sector which aids the rise of economic structure of the people. The core problem of poverty can only be tackled by decentralized employment facilities which should be introduced keeping a check of utilization of the inhabitants and not new immigrants. Also redevelopment of the old buildings should be carried in accordance to upgraded development zones to spread the economic sources and industries and lessen the mobility of people. There is not one solution to Mumbai and likewise there isn't one problem. Only an approach of finding the source cause of a problem and implicating direct solutions will in time boost and stabilize the economic development of the city.