

2014

Urban Renewal - Mumbai

Niyati Kanakia

TYBMS[SEMESTER V]

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Declaration

I Ms. Niyati Kanakia, of Mithibai College of Management of TYBMS[Semester V] hereby declare that I have completed my project titled 'Urban Renewal – Mumbai' in the academic year 2014-2015. The information submitted herein is true and original to the best of my knowledge

Signature of Student

[Niyati Kanakia]

Certificate

I Mrs....., hereby certify that Ms. Niyati Kanakia, of Mithibai College of Management of TYBMS [Semester V] has completed project titled 'Urban Renewal – Mumbai' in the academic year 2014-2015.

Signature of the I/C Principal
[D.B. Gadkari]

Signature of BMC Co-ordinator
[Mrs. Shalini Padhi]

Signature of External Examiner

Signature of Internal Examiner

Acknowledgement

India is a great country and has witnessed tremendous growth since independence. The cities have been the driver of this growth. The growth has resulted in migration towards cities, Mumbai, the largest metropolis in India, has had the lion's share of the migrants. Its growth has been nurtured by the passion and hard work of millions that now inhabit its landscape. During the course of research I came across passionate works of many who are trying to find answers to the biggest question facing the city – balancing the twin objectives of growth and quality living to its citizens. The research is a combination of views and ideas, suggestions and contributions of their work and study

I take this opportunity to thank all the people whose co-operation and encouragement made the completion of this research project a time possibility. I would also like to express my sincere gratitude to my mentor Mrs..... under whose guidance the research was undertaken. Without her supervision at each stage of the research, the task would not have been accomplished. Last but not the least I wish to thank all the respondents who gave me some of their valuable

Objectives of study

Mumbai is a great city, home to millions of hardworking people. It is trying to balance the twin objectives of growth and offering quality living to its citizens.

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Executive summary

Mumbai has historically been India's commercial capital, contributing significant tax revenues to both Maharashtra and the Centre. However, over the past decade, Mumbai has been declining rapidly on the dimensions of both quality affordable housing and infrastructure. Though several very valid recommendations already exist on Mumbai, what is really needed is for Mumbai to undergo a change in mind-set: from thinking of small incremental improvement and debottlenecking, it must begin to think of making step jumps towards becoming a vibrant metropolis. The situation, at present, may appear insurmountable, but the city can transform itself in a 10-15 year time frame. Mumbai must invest substantial amounts over the next ten years in each of the following to address issues arising out of rapid population increase due to urbanization / migration

- Dramatically increase low-income housing availability (1.1 million low-income houses) and affordability and drive up gradation of old housing stock. Builders and contractors should be encouraged to take up and speedily implement schemes such as redevelopment of slums and societies
- Make governance more effective, efficient and responsive streamlining important processes such as building approvals to ensure speedy implementation.
- Enable implementation through committed public-private resources, led by the Chief Minister and make key government organizations accountable for results.
- Improve and expand mass and private transport infrastructure, including linkages to the hinterland.
- Provide financial support through innovative measures such as creation of Mumbai Infrastructure Fund with an annual funding of Rs.1,000 crore – 2,000 crore and attract debt and private financing.
- Upgrade safety, air pollution control, water, sanitation, education and healthcare.

Mumbai is currently at a critical juncture. It must implement the eight initiatives outlined above, and it must do so now. Otherwise it is in grave danger of collapsing completely.

Mumbai

History

Mumbai, originally a group of seven marshy islands on the west coast of India and a fishing village until the 16th century, was ceded by the Portuguese in the 1630s. Later the King of England leased it to the East India Company. It developed as an important port, used by the British for more than two centuries. The city started growing after the cotton growing areas of the hinterland were connected to Mumbai by rail, which facilitated the supply of cotton to factories in England. By 1864, the city's population had reached 817,000. With the growth of manufacturing units for cotton textiles, commercial and more unskilled labour its manufacturing sector became more diversified with the expansion into the chemicals industry, basic metal and engineering products. The city of Bombay was the first in the country to have a municipal corporation, created through special provincial legislation in 1888. After independence in 1947, growth of the port, discovery of offshore oil, emergence of financial services, development of national and international trade and the establishment of many public sector units and educational institutions gave further impetus to the growth of the city. Mumbai also became the capital of the State of Maharashtra, adding further to its administrative importance.



Figure 1 Mumbai in 16th century

west coast of the Moguls to the East India Company for more growing areas of cotton textiles, commercial and more unskilled labour its manufacturing chemicals

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Real Estate Evolution

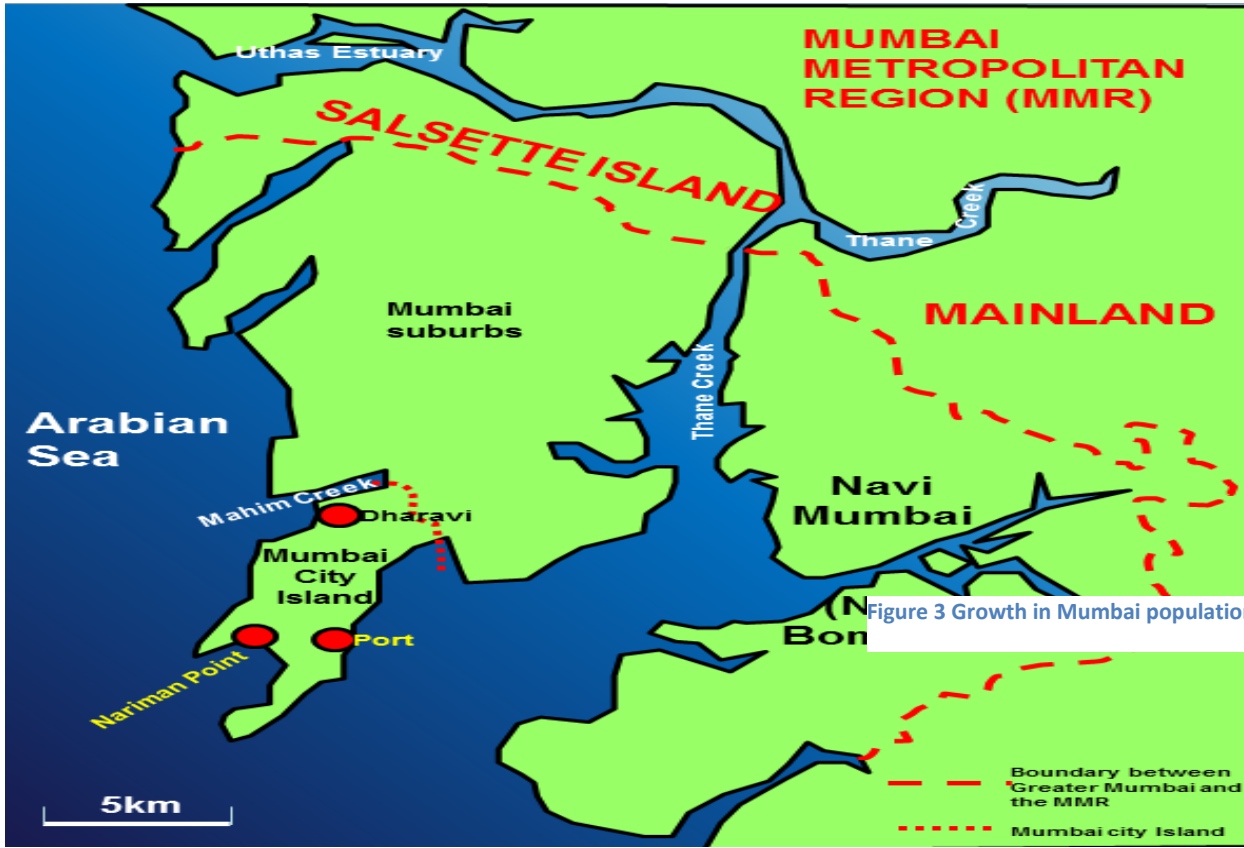
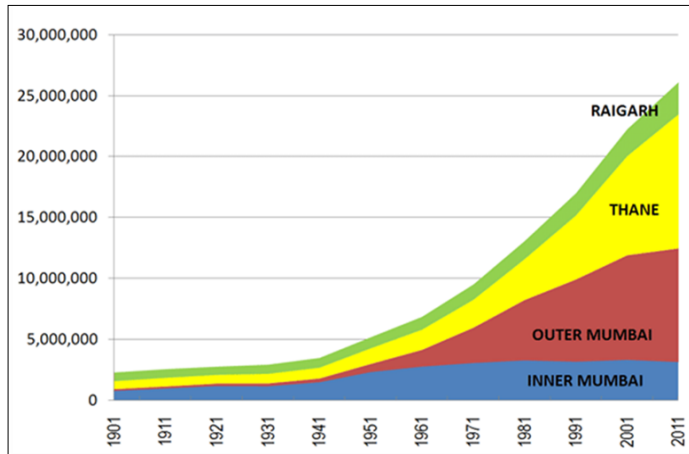


Figure 2 Mumbai Metropolitan region

small islands were combined, partly through silting and partly through land reclamation. Most of the employment centers and a few high-density areas are located on the island strip of 24 island became more commercialized, the developments of the British and wealthy from the southern parts of the city along extended suburbs, while the housing of classes grew northwards. The second the city includes the suburban area of north of Mahim Creek, which began to



rate after independence due to congestion on the main Island City. These two together form the Greater Mumbai area of 437. 71 km², administered by the Municipal Corporation of Mumbai. For purposes of revenue and general administration, Greater Mumbai is considered as one district. The Island City is connected to the region by north-south rail and road arteries. Suburban development requires north-south movements of millions of daily commuters

Mumbai occupies a long, narrow peninsula in the Arabian Sea on the west coast of India. The region on the whole is low-lying but not

flat. Mumbai City is an island of 69 km². The original seven

residential km². As the residential Indians moved the sea coast as the working component of Salsette Island grow at a faster

to workplaces in the Island City on suburban trains that are highly overcrowded. The city has been divided into six zones and 24 wards to facilitate the administration of the Municipal Corporation. After 1975, the influence of the city was extended into the Mumbai Metropolitan Region (BMR). The BMR region, covering an area of 4,355 km² was formally delineated after the enactment of Mumbai Metropolitan Regional Development Authority (BMRDA now MMRDA) Act in 1974. The Mumbai Metropolitan Region includes Greater Mumbai, Thane Municipal Corporation, Kalyan Municipal Corporation, Virar-Bhayandar, Bhiwandi (standard urban area VI), New Mumbai, (administered by the City Industrial Development Corporation, CIDCO) and the rest of the BMR (under smaller municipal councils, semi-urban villages). In order to relieve the main city and to deflect city growth government accepted the proposal contained twin city across the more or less independent of Suburbanization process was Northwards direction along major such as roads and rail links, and Eastward direction. This has involved not just the growth of areas but also the relocation and industrial areas.

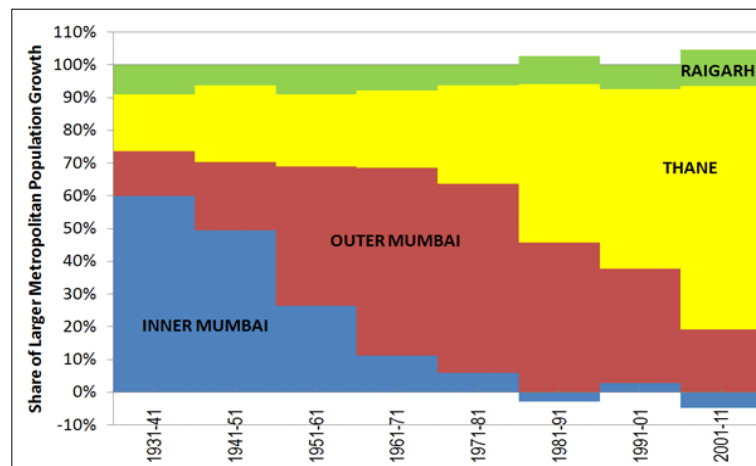


Figure 4 Growth of Suburbs and Share in Mumbai Population

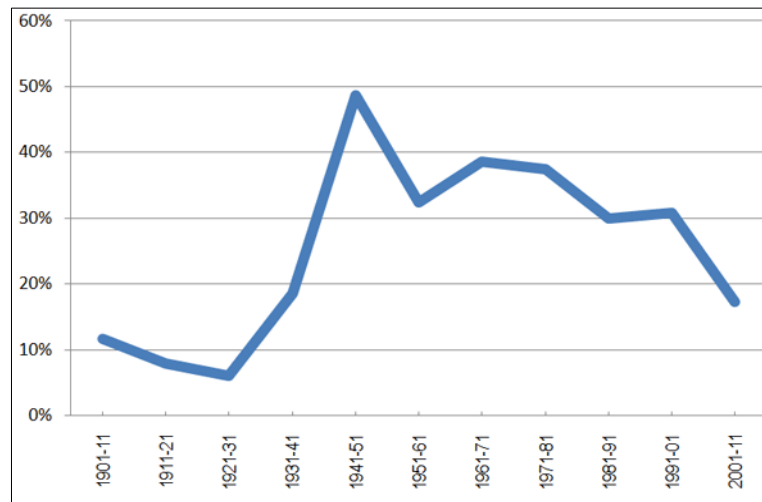


Figure 5 Growth in Mumbai Population

areas and burden on the to the region, the to set up a self-harbor which is Mumbai.

initially in a transport routes now in an suburbanization residential growth of new

Table 1 Evolution of Mumbai

Evolution of Mumbai Suburbs	
1930s to 1940s	The rise of Shivaji Park area, Matunga and Mahim as the outlying suburbs
1960s (post independence)	Inner suburbs in southern Salsette and Chembur-Trombay had emerged
1970s	Assimilation of the 'extended suburbs' beyond Vile-Parle and Ghatkopar.

Table 2 Burgess Model of City Development - Developed Countries

Flipside of Development

Development of the city leads to simple population growth; it involves economic, social and political Rapid development of cities strains to provide services such as energy, health care, transportation, sanitation

security. Because governments have spend on the basic upkeep of cities provision of services, cities become massive sprawl, serious environmental problems, and poverty. During the 19th and early centuries, development of cities and contributed to industrialization. opportunities in the cities motivated movement of surplus population away countryside. The migrants provided

plentiful labor for the emerging factories in turn spurring further growth. Cities based on the burgess model worked well, where the central business district housing factories was the center and workers housing close to the factories. The managers could afford to live that were a bit far and the rich lived in residences on the outer parts of the city. The major problems were restricted to bands 2 and 3. However rapid urban development leads to the “urban sprawl”- scattered development that increases traffic, saps local resources and destroys open space. The center is still the central business district, however people made shacks wherever they could, often in areas prone to flooding for example or subject to other forms of pollution that no-one else wanted, using whatever materials were around. They lacked paved roads and fresh water or any of the other main services, like schools and health care. It is in the outer shanty areas that you find most of problems shown in the diagram. The poor housing, lack of fresh water and sanitation, no electricity and unmade up roads are obvious problems.

Thriving world-class cities, it has long been observed, need to be strong on two fronts:

1. Economic growth

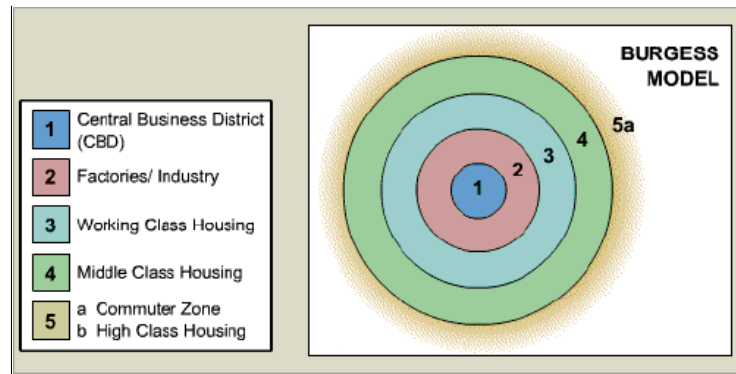


Figure 7 Burgess Model of City Development

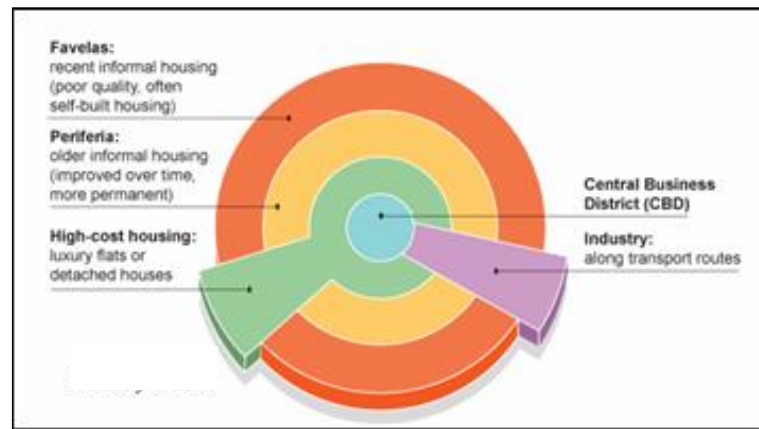


Figure 6 Emerging Cities Model - in Emerging Economies

more than just changes in the structure. their capacity education, and physical

less revenue to and the areas of widespread 20th resulted from New job the mass from the cheap,

2. Quality of life.

Each of these affects the other, leading to a vicious or a virtuous cycle, depending on the situation. Mumbai, at present, is in reverse gear. It is currently lagging behind on both fronts – economic growth and quality of life.

Mumbai is often described as an sharply divided between poverty. Since, independence, the center for development and activities of India. Mumbai has multifaceted and the population several times. Manufacturing the minor force in Mumbai tor employment resulting in has created increased demand limited public resources and available in the island. The brought out the new suburbs east and west..Most of the expansion has been in direction with the central remained in the island.

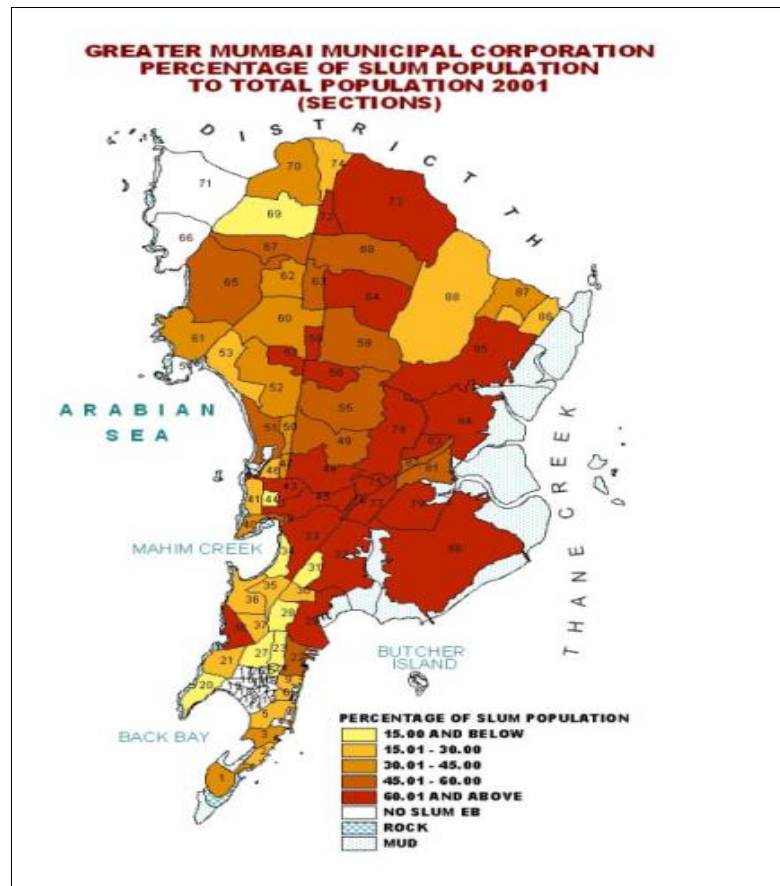


Figure 8 Slum Map of Mumbai

Mumbai was due to the bulging

of the place became scarce the real estate value shoots up driving the public to the suburbs. As a result, expansion of Greater Mumbai in 1971 was almost entirely due to its suburbs growth. In 1981 the city's population of 3.3 million was far outpaced by the suburb population of 5 million. Mumbai city, in the post independence period has been facing severe resource constraints. This growth has further exacerbated the city's problems by overstraining its services in catering to the hordes of commuters, all heading each morning for south Mumbai where the port, business office. and administrative offices are located. Due to its long narrow shape, Mumbai Island has no option but to grow in northerly direction. Then it was thought that it is essential to create another city center to ease the increasing pressure on Mumbai and its resources and services. During the third five-year plan of Government of India, the concept of regional planning was introduced and the Mumbai Metropolitan Region was demarcated. Subsequently, New Mumbai was developed with all basic characters of a business center. High growth rate, high migration and urbanization put tremendous stress on the resources and increased growth. economic activity and per

urban cape opulence and Mumbai has been financial grown has grown up sector has been creating potential migration. This for sharing the infrastructure population bulge spanning over development and northward business district Expansion of of the Island. As

capita income further over stresses the resources and "common goods". This phenomenon created a wider scope for increased environmental concerns, which are multifaceted and also cross sectoral. For various social and administrative reasons, Mumbai was renamed as Mumbai during late nineties. The manufacturing sector is no longer the city's main employer. Increasingly, services are filling the vacuum but in a haphazard way.



Figure 9 Parameters affected by City Development

Inadequate Housing stock

Housing stock of Mumbai has not grown at the same population which has led to price inflation and Affordable housing options for most of migrants are: chawls (consisting mainly of semi-permanent can be both authorised and unauthorized); Zopadpattis housing); and pavement dwellings. Although dwellings and chawls have poor slum-like conditions, under the legal definition of 'slum'. Chawls were constructed in Mumbai by factory owners and low income workers between 1920 and 1956. Later, Authorities and a few other public sector units began similar tenements to their workers. One-room cooking places and shared common lavatories were the aim of housing mostly single men for nominal consolidation of male migrants in the city, their them. Consequently densities in these single room increased phenomenally and structures began to fast. Due to rent freezes imposed by the Rent Control Second World War, the building of chawls became landlords and their supply came to a halt by 1950. led to a lack of investment by owners in repair and existing chawls. In many cases residential tenements commercial and industrial uses resulting in excessive damaging the structure. The saline and humid weather and corroded the steel in the structure. Faced with of decay and dilapidation chawls were in precarious collapsing during the monsoon every year. A 1957 Mumbai Municipal Corporation Survey showed that of the 36,000 buildings within the city area, 49 per cent had been built before 1905. In 1969, about 20,000 chawls in dilapidated conditions housed two million people (Dua, 1990). Pavement Dwellers are households, dominated by single male migrants living in hutments built on the footpaths of Mumbai's roads close to places of employment. There were 20,000 pavement dwellers as early as 1952; the number grew to 62,000 by 1961, whereas the 1981 Census identified about 22,600 households. The majority of them were migrants from poorer regions of the country. The living conditions of pavement dwellers were worse than those of squatters as these were not eligible

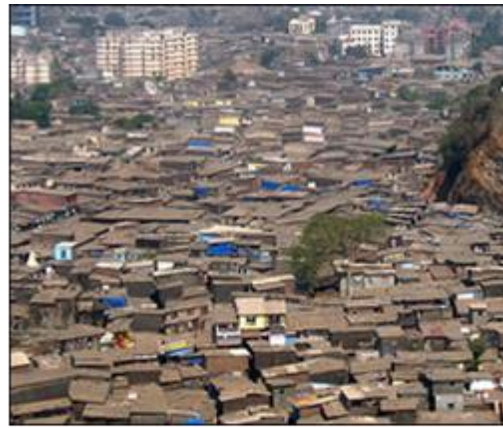


Figure 10 Mumbai Slums Impinging on Infra

pace as the unaffordability. Chawls; Patra structures, which squatter pavement these do not fall rental tenements landowners for the Port renting out tenements with provided, with rents. With the families joined tenements deteriorate very Act during the unprofitable for Rent freeze also maintenance of were put to loading and caused dampness serious problems conditions, some

for improvement schemes and often faced harassment and demolition. Most of the inhabitants had to pay rent to local strongmen who informally controlled the most alarming factor is the growing number of generation of pavement dwellers in which the 'street children' (Kuruvilla, 1991).SPARC (Society for Promotion of Area Resource Centre) an NGO (Niketan College of Social Work, counted pavement dwellers in 1985 SPARC also formulated of grassroots level women's groups

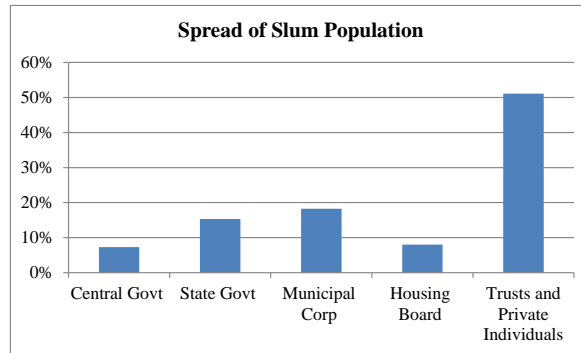


Figure 11 Slum Sprawl as per Land Agency

pavements. The second and third majority are (Society for and Nirmala 125,000 facilitated a besides lobbying

with the government for a better deal for pavement dwellers. The resettlement option has not been very acceptable to people due to economic dislocation involved. Zopadpattis are squatters in the local terminology. These are the most predominant low-income informal settlements falling under the category of slum. The first official census of slums was carried out by the State Government in January 1976 (Government of Maharashtra, 1995) and 902,015 huts in 2,335 pockets were identified. Households were given identification cards for the purpose of future settlements. All those who had been counted in 1976 were eligible for slum improvements, redevelopments and relocation. More than 50 per cent of squatting was on private lands, followed by municipal lands. While 73.6 per cent of employment was concentrated in the island wards they contained only 21.1 per cent of slum population. Settlements in the suburbs housed almost 83 per cent of the slum population mostly located on lands not suitable for development - like low-lying marshy lands, hillsides and along railway tracks. The slum census did not include pavement dwellers. Slums had built on private lands earmarked for public facilities in the Development Plan. There was a wide variance in densities ranging from 750 huts/ha to 200 huts/ha in isolated pockets. Generally 10 to 15 per cent of residents worked in the settlements themselves. There were large slum concentrations like Dharavi which occupied about 230 hectares of mixed ownership and had a population of 0.35 million. Larger slums like Dharavi with its tanneries and liquor distilleries produce everything from suitcases, sweets and gold jewellery, and are places of ingenuity. This is enterprise personified, an island of free enterprise not assisted or restricted by the state or any law (Sharma, 2000, pp.78). The average area of huts was as small as 12.5 m² and only 12.72 per cent of huts were built of permanent materials. The rental market was significant with 48 per cent households living as tenants. Sanitation was very poor and water supply was through highly inadequate community water taps. About 40 per cent of households belonged to the Economically Weaker Sections and 39 per cent belonged to the low income category. Seventy-nine per cent of families had come to Mumbai after 1960 and 50 per cent of migrants were from other states of India. In 1991, there were only 23.3 lakh (24.5%) slum dwellers in the city | In 2011, an estimated 78% of the city's population lives in slums | Population density in the suburbs is highest in state: 20,925 persons per sq km (AMITA BHIDE, TATA INSTITUTE OF SOCIAL SCIENCES)

Infrastructure Issues

Greater Mumbai with a population of 16.4 million as many people as those in New York City. Mumbai Region (MMR) with over 25 million people is the urban conglomeration in the world after Tokyo. MMR times lesser area can be home to the entire population of Suburban Mumbai has a density of 20,925 persons per sq km which is twice as many people as that in New York (10,630 persons per sq km). The city's infrastructure is not keeping pace with its rapid growth. On an average a resident of Mumbai spends four hours a day commuting, either crawling at five kms/hour on the roads or packed like sardines in the local trains¹. The travelling conditions lead to high accidents and fatalities- approximately 72,000 accidents per year, resulting in an average of 14,000 deaths (source: US OSAC). Water troubles plague not only more-than-60-percent of Mumbai residents now reported to live in “slums” (where basic infrastructural services like municipal water supply are often both legally tenuous and practically unreliable); city elites, as well, have seen their taps grow increasingly erratic and prone to drying up.² This is in spite of high rainfall that the city receives during the rainy season. Flooding during the monsoon season is of great concern exacerbated by inadequate drainage, clogged storm sewers, and expansive city growth. Violent crimes do occur but for the most part are isolated in more high density areas, such as slums and crowded apartment blocks.

Water Consumption	Water demand (mld)	%
Domestic		
Non Slums	1,800	47%
Slums	1,600	40%
Industrial	300	8%
Commercial	150	3%
Institutional	120	2%
Total	3,970	100%

Water Reservoirs	Water Supply (mld)	%
Tulsi	18	1%
Vihar	110	3%
Tansa	417	12%
Upper Vaitarna	1025	30%
Bhatsa	1650	49%
Mumbai III	150	4%
Total	3,370	100%

Figure 12 Water scarcity

houses twice Metropolitan second largest with 1,700 Australia. sq. km which persons per sq rapid growth. a day crater-ridden unsafe fatalities- average of plague not reported to live

The city gets its water from reservoirs built across the island and suburban areas. The total water supply is 3350 mld There are 3 lakh metered water connections in the city. Nearly 83 percent connections are domestic residential connections, commercial connections are 15 percent. Industrial connections are very low (2 percent) in the city. There are 1.5 lakh un-metered water connections in the city [Times of India 2007], nearly 50% of the registered metered connections. The water demand for population is 135 litres per capita per day which translates into a water demand of 4000 mld. Mumbai city has a water shortage of 700 mld

Slow Pace of Development

¹. (<http://www.ey.com/IN/en/Newsroom/News-releases/Published-editorial--Mumbai-needs-infrastructure>).

²(<https://casi.sas.upenn.edu/iit/bjorkman>).

The illegal and irregular expanse of slums challenge to creation of new infrastructure A major projects including metro rail, mono Navi Mumbai international airport state-run Mumbai Metropolitan Region Authority and Maharashtra State Road Corporation reveals one of the major reasons

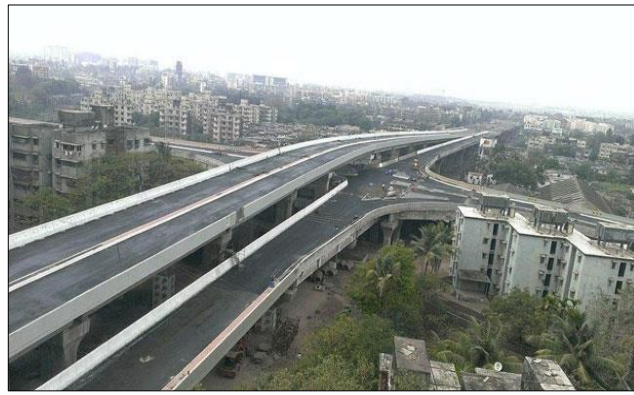


Figure 13 Santracruz chembur link road

strong opposition from the project affected regulatory hurdles and delays in getting clearances.

The SantaCruz-Chembur Link Road is a strong issues involved in displacement of slims. After 10 6.5-km Santa Cruz-Chembur Link Road was finally public in Mumbai today. The road is expected to cut time between the two areas from nearly an hour to minutes. The project, which has already earned the tag of being the 'world's most delayed road project', crucial east-west connectivity in a linear city like road, which was due to open in 2004, has missed deadlines. While the initial cost of the project was it now stands at a whopping Rs. 435 crore. The road double-decker flyover, the first-of-its-kind in India. was delayed due to problems in rehabilitating a of slum people and delay in construction of a bridge railway tracks in Kurla.³

The Rs 2,460 crore Mono rail project, which was to 2010 and later rescheduled for December 2012, is construction, The first phase of 8.8 km is now throw open for passengers by August end or middle

³(<http://www.ndtv.com/elections/article/election-2014/world-s-most-delayed-road-opens-days-before-elections-in-mumbai-510512>)

posses a great close look at rail, sea link, undertaken by Development Development for delay is the persons, necessary



Figure 15Mumbai Monorail

example for long years, the thrown open to commuting just 20 embarrassing will provide Mumbai. The several



Figure 14Mumbai Metro Rail

Rs. 115 crore, has a four-lane The project huge number over the be complete in still under expected to of September.

The second phase of 10.74 km will be operational by August next year. The project which passes through a one of the largest SRA ghettos in Chembur was delayed due to relocation of religious structures and issues relating to right of way (RoW), environment and railway clearances⁴

The 11.40 km Versova-Andheri-Gahtkopar fully elevated Mumbai Metro line 1 with cost of Rs 2,356 crore was scheduled to be completed by end of 2012. Recently, test run for the Versova-Azadnagar was completed and it is expected to be operational by September while the full line to be thrown open for passenger traffic by December. Mumbai Metropolitan Region Development Authority (MMRDA), which is the planning authority, admits that there was delay in clearing slums and handing over of land, delays in permission from the Western Railways to start construction of rail over bridge and design changes. Further, the foundation stone was laid by former president Pratibha Patil for the 32 km Charkop-Bandra-Mankhurd Mumbai Metro II line in August 2009 but the project development is yet to begin. Reliance Infrastructure, which had bagged the project, may get out of the project as the deadlock continues over obtaining land and critical project clearances. In view of lack of clarity on the allocation of alternate space for Depot land, the project may get abandoned.

The affordable homes market, thriving on the outer fringes of Mumbai, is beset with problems like lack of infrastructure, poor transport connectivity, issues of land titles and delayed clearances. These locations are 60 to over 100 km from Mumbai. But they claimed to have registered brisk sales of smaller flats in places like Boisar, Virar, Panvel, Kalyan, Shahpur, Ambivali and Karjat. These homes cost anywhere from Rs 10 lakh to Rs 35 lakh. But despite frenzied construction in these far-flung places buyers are circumspect in buying as there is lack of infrastructure like water supply, schools, markets, hospitals and restaurants etc.

The Rs 8,000 crore Mumbai Trans Harbour Link (Seewri and Nhava Sheva) was earlier tendered in 2008 but later scrapped. Thereafter, it was re-tendered in 2009 but did not receive enough response. After three years of delay, the project was tendered third time and MMRDA has short listed five bidders. The Centre has agreed to provide Rs 1,920 crore as a viability gap funding. Transport experts have hit out against the government's indecisiveness in project implementation. As far as Rs 5,000 crore Worli Haji Ali sea link project is concerned, the project is almost abandoned. The formal announcement is expected from the state government. The state-run Maharashtra State Road Development Corporation and Reliance Infrastructure, which had bagged the project, have mutually agreed

⁴http://www.business-standard.com/article/companies/mumbai-infrastructure-upgrade-projects-run-behind-schedule-113072800437_1.html

to part ways. The project development could not start despite concession agreement was signed in 2010 due to change in framework post award of the bid.⁵

⁵<http://timesofindia.indiatimes.com/city/mumbai/Infrastructure-problems-title-disputes-plague-affordable-homes-on-Mumbais-fringes/articleshow/24308605.cms>

Redevelopment

Redevelopment refers to removal / demolition of the existing structure on the land and development of a new structure, conforming to the current development norms of the land. Mumbai being a historical city and the commercial capital of India has a unique mix of very old structures and large scale slums spread across the length and breadth of the city. Redevelopment in Mumbai comprises of development of land occupied by slums and development of buildings aged more than 30 years

Slum Redevelopment

In Mumbai, from 1950 to 1970 the approach was to remove the slums and protect the land. However the Influx of migrant labour was so huge the efforts to protect even private land proved futile. Large Area of public and private land were encroached by slums. From 1970-1990 since the removal and control of slum proved futile the humanitarian approach to recognize the slum was consider and The Maharashtra Slum Area (Improvement, Clearance & Redevelopment) Act, 1971 came in existence. Census of hutments carried out in 1976 and Identity Card/Photo passes issued to Slum Families. Basic amenities such as water, drainage, toilet, pathways, street light were provided in slum area. Slum Up-gradation program was implemented with World Bank assistance in mid 1980. Slum land given on lease of 30 yrs to the co-operative society of slum dwellers at a nominal lease rent. Soft loans for renovation of individual structures on as is where basis is were provided. Redevelopment of slum dwellers was also initiated in Dharavi under PMGP. From 1991-1995 Redevelopment of slums started under SRD by making provision in Act and Rules. Under Development control rules (No. 33 (10)) redevelopment of slum through owners/ developers /co-operative housing societies of slum dwellers/NGO was made permissible for censuses slum or slum dweller whose name appeared in the Electoral Roll of 1985 with FSI up to 2.5. However the Scheme proved not effective. A high power study group was formed by Govt. popularly called AFZULPURKAR COMMITTEE which recommended Slum Rehabilitation scheme. Committee has estimated 80% slum rehabilitation is possible in situ. Committee relies on philosophy that “if inequality has to be removed there has to be unequal law” as giving free tenements to slum dwellers is not supported by housing philosophy but slum dwellers deserve this preferential unequal treatment to bring them into mainstream of social, cultural and economic fabric of the city.⁶ By amendment to the Maharashtra Regional & Town Planning (MR & TP) Act 56, Slum Rehabilitation Authority has been declared as a planning authority, to function as a local authority for the area under its jurisdiction. SRA has been empowered to prepare and submit proposals for modification to the Development Plan of Greater Mumbai.⁷

⁶<http://www.sra.gov.in/pgcSRAInfo.aspx>

⁷<http://www.sra.gov.in/pgcSRAInfo.aspx>

Slum Rehabilitation Scheme: principal actors and processes

Initiated by the Shiv Sena in 1995, the Slum Rehabilitation Scheme (SRS) is the main programme dealing with slum rehabilitation and resettlement in Mumbai¹⁴. Its objective is to make available free housing to slum dwellers by providing strong financial incentives to the private sector through what is commonly called ‘crosssubsidy’. In fact, private profitability is ensured thanks to the slackening of social housing standards, the authorization to directly sell part of the built-up area, and the granting of “Transferable Development Rights” (defined later in this section) to the developer. SRS projects are monitored by the Slum Rehabilitation Authority (SRA), created in 1996 by amendment of the Slum Area Act, 1971. There are, in fact, three different rehabilitation schemes under the SRS¹⁵: an ‘in-situ scheme’, a ‘project-affected people scheme’ and a ‘transit scheme’. The Chandivali resettlement project we study falls under the second category. Under this model, the resettlement land initially belongs to a developer. Once a resettlement project is finalized, the land is handed to the SRA in lieu of a sale component (share of flats that can be sold directly) and Transferable Development Rights. SRS eligibility criteria for a given family have been set up as follows. First, the long-term ward residency has to be proved with name of the head of family mentioned in the 1995 (or any previous) election roll. Then, a ‘ration card’, mentioning the slum to be rehabilitated or resettled as the family’s residency area, has to be provided. Under ‘in-situ schemes’, at least 70 per cent of the dwellers have to organize themselves into a cooperative housing society in order to appoint a developer for the project. This is not the case with ‘project-affected people schemes’, where the SRA directly publishes a letter of intent to find available land owned by a developer willing to provide resettlement tenements.

The SRS standard flat size is 225 ft² (21 m²). Once resettled, ‘project-affected people’ are not allowed to rent or sell their tenement for 10 years. They benefit from an abatement of the municipal property taxes during this period and then progressively pay an increasing amount over the next 10 years. A deposit of Rs 20,000 per flat (13 per cent of the estimated cost of construction) has to be provided by the builder to be used for maintenance. Several financial incentives are given to attract developers. While in the SRD, profits could not have exceeded 25 per cent of the initial investment, under this scheme, the profit ceiling is deregulated. Second, while FSI is only 1.33 in Mumbai Island and 1 in the suburbs (see Section 1.3), builders are allowed to use a 2.5 FSI on rehabilitation and resettlement sites. This means that the built-up area can reach 2.5 times the area of the plot. In very high density slums such as Dharavi, where the number of tenement per hectare exceeds 500, FSI can be raised up to 3. In areas under Coastal Regulation Zone 16, the FSI for rehabilitation and resettlement can only be raised to 2. Third, as in the former Slum Redevelopment Scheme, only part of the built-up tenements is handed over to ‘project-affected people’. Once all families have been resettled, the remaining area, called the ‘sale component’, can be directly sold by the developer. However, the maximum ratio of built-up area for sale to built-up area for rehabilitation depends on the location: it is 0.75 in Mumbai Island, 1 in the suburbs¹⁷ and 1.33 in “difficult areas”. The idea here is to

allow more built-up area to be sold in locations where more financial incentives are needed to attract builders. Given these conditions, it would quite suit a builder to have some slum-dwellers encroaching on a plot that is marked for rehabilitation in a valuable area. The FSI can then be increased significantly (up to 2.5), while only a minimal portion of the built-up area is needed for housing slum dwellers and all the rest can be used as a sale component. The fact that FSI are not strictly proportional to the density of slum clearly makes it more lucrative for builders to redevelop plots where low-density slums have encroached, especially where land is expensive. Fourth, 'Transferable Development Rights' (TDR) maintain the project's profitability even when the initial slums are densely populated. The rationale behind TDR is as follows. In cases of dense population, even if the maximum FSI is consumed, most of the built-up area has to be used for rehabilitation. There is then no apartment left for the sale component, and thus, no profitability for the builder. TDR are, therefore, used to compensate the builder, who acquires it thanks to the SRS project. It is additional housing space to be used somewhere else. It can be used to increase the FSI of another construction instead of the rehabilitation/ resettlement one, or be put up for sale on the open market. In fact, 'loading' TDR on ordinary residential projects allows the builder to increase the maximum FSI which would normally be permitted. The only restriction is that TDR have to be used in suburban areas of Greater Mumbai, on a construction located in the north of the resettlement site. The BMC is the body in charge of issuing TDR progressively, upon delivery of the residential tenements. The calculation of TDR to be allocated to the builder is then based on the built-up area provided to affected families, plus the area consumed for passages, stairs and society units. However, social amenities are excluded from this calculation, providing no incentive to the builder to provide such facilities. The Slum Rehabilitation Scheme, however, has been facing increasing criticism from the public over the last ten years. While its initial objective was to provide 800,000 tenements, by 2000 only 10 per cent of the nominally eligible slum dwellers of the city had shown interest (Mukhija, 2001) and, by 2003, 19,000 units had been built (Burra, 2003). There are several reasons for this limited achievement, especially when it comes to on-site rehabilitation. The primary ones are the drop in property values during the 1995-1998 period; the fact that most slums are located on areas classified as dangerous (hill slopes, under power-lines)

Slums represent an extremely high-density model of residential settlement. In this respect, they make the most efficient use of limited land possible. Slums tend to form around primary workplace catchments and business districts, which means that they represent an immediately accessible support work force. The relocation of slum-dwellers takes up a lot more real estate resources than leaving them precisely where they are. Since projects built for the resettlement of slum-dwellers are invariably in far-off locations, the cost of their services goes up because they have to commute far longer distances. This means an increase in the salaries that slum-dwellers will justifiably ask for if they are relocated. However, it is certainly an inalienable fact that slums detract from the overall quality of life – both of the slum dwellers and those living in the vicinity. In a city like Mumbai, rehabilitating slum-

dweller's who have their settlements along railway tracks is probably the most important, since these slums reduce the efficiency of the transport system. By relocating slum dwellers, this land can be put to much better use and add to the city's quality quotient. Redeveloped slums result in improved property demand within and around the said areas. With slum redevelopment, large parcels of land can be opened up for proper development, thereby adding to supply in congested areas and exerting downward pressure on existing property rates. Moreover, demand increases because the area's profile is given an upgrade. To aid slum redevelopment, the progressive step the Government can take is encouragement of the PPP model. Many SRA schemes from various top ranked developers such as Kanakia, HDIL, Unitech and Hiranandani that follow this model have seen success in Mumbai.



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The Rs 32,000-crore slum redevelopment scheme initiated in 1995 with the objective of providing at least eight lakh houses for the slum dwellers. It was set up the Mumbai Slum Rehabilitation Authority (SRA) allotted 1,524 redevelopment projects, of which 197 have been completed. About two lakh houses have been built under the scheme so far. As many as 1,100 projects are still being developed⁸

Case studies - Slum Development

Four Seasons Hotel – Worli, Mumbai

Four Seasons, Worli Mumbai became the first luxury hotel of its size to launch in the city's south in about 20 years. The hotel has been developed on defunct mil l land which was encroached by slums. The land was acquired by Jatia's in mid 2001 and it took them 6 years to clear the land and get the necessary approvals for starting of construction. The hotel was completed in 2008 at a cost of \$ 100 mn. The slum dwellers were compensated for the loss of their houses and provided houses next to the site. The state government wants to use this model for mega slum projects in Dharavi and Airport

Figure 16 Hotel Four Seasons - worli

Dharavi Slum Development – Case study



Figure 17 Dharavi slums

⁸http://articles.economictimes.indiatimes.com/2010-08-21/news/27581873_1_slum-rehabilitation-cbdt-srs

Dharavi is reputed to be one of Asia’s largest and highly dense slums. Dharavi was once an isolated settlement on the outskirts of Island city. It was unwanted land, rendered useless (due to the difficulty in traversing its swamps and marshes), except for its wildlife and the fishing village located near it. Since then, Dharavi has developed into a crowded collection of over 80 neighborhoods. Nearly 500,00 – 10,00,000 families are squeezed into 535 acres of Dharavi area. a recent survey by the Kamla Raheja Vidyaniidhi Institute of Architecture (KRVA) established that one central area of Dharavi, the Chamra Bazaar, contained densities of up to 18,000 people per acre. Assuming a population of approximately 700,000, the population density in Dharavi is 11 times as dense as Mumbai as a whole and more than 6 times as dense as daytime Manhattan without all the niceties of consistently running water, electricity, sewage solutions, roads, or healthcare. There is one municipal hospital and one toilet for every several hundred people, causing rampant disease and a paltry standard of living for residents. They are incredibly insanitary, rates of cholera, diphtheria, TB and typhoid run high – there are 4,000 new cases of disease a day, the people are at huge risk from natural disasters such as fires and flooding. Dharavi there is a huge, thriving economy. It is estimated that the economic turnover of its accumulated businesses is between \$500-\$650 million. Examples of industries in Dharavi include electronics, clothing, suitcases, food, recycling, leather, pots, and many more. 85% of people have a job. However wages are low, working conditions are terrible, and it is not unusual to see things like children playing around toxic sludge or their parents rooting among the rubbish for things to reuse or eat

Dharavi literally overlooks the Bandra-Kurla Complex which is the central business district in Mumbai. In a city bound by water and already fighting to accommodate millions of inhabitants, the centrally located Dharavi represents substantial economic value and there is much pressure from developers and builders to free the land for

Rehab B.U.A	Rs.10509 /sq mt	x 1964451	sq mt = Rs.2064 cr
Sale B.U.A –	Rs.17200 /sq mt	x 2618613	sq mt = Rs.4504 cr
Rehab Renewal –	Rs.12000 /sq mt	x 175817	sq mt = Rs. 211 cr
Sale Renewal –	Rs.17200 /sq mt	x 234364	sq mt = Rs. 403 cr
Transit B.U.A –	Rs.5600 /sq mt	x 371285	sq mt = Rs. 208 cr
Amenities B.U.A –	Rs.13400 /sq mt	x 904325	sq mt = Rs.1212 cr
R.G. & P.G –	Rs.2350 /sq mt	x 296174	sq mt = Rs. 70 cr
Industrial surplus	= Rs.	43 cr	

commercial

development that has been decades in the making. The Government of Maharashtra has vide its resolution dated February 4, 2004 resolved to implement Dharavi Development Action Plan and for which SRA is declared as Special Planning Authority. It also accepted a \$ 3 bn proposal from Mukes Mehta for redevelopment of Dharavi. The Even though the development plan was adopted, Dharavi redevelopment project has been in the works for more than a decade, but has been a non-starter due to issues such as flip-flops in policies, design changes, differences with the original consultant and opposition by some residents.

Anticipating resistance in acquiring land for the developers' in the decade-old Dharavi revamp project, the authority tweaked the draft development plan for the slum sprawl, separate markings for sale and rehab housing. The final Dharavi development plan, which has now been sent to the government for approval, shows the entire area required for ambitious project as one 'Dharavi redevelopment project of houses that will form a part of the sale component and the rehabilitate existing residents can be taken at a later stage.



Figure 19 Tokyo and Dharavi slum - superimposed side by side

sale component charge has deleting version of the state housing in the area.' Location area to

About a fifth of the total land that is to be developed for the project is privately owned and needs to be acquired. Dharavi comprises five sectors spread across 240 hectares, of which 152 hectares will be developed under the project. Of the 152 hectares, the official said the Dharavi Redevelopment Authority would have to acquire approximately 27-30 hectares of private land. About 3-4 hectares of this is under the ownership of the Tata Power Company.

Maharashtra Housing and Area Development Authority (MHADA) has commenced construction work in Sector 5 as a pilot scheme of the project — this portion was chosen because it was easiest to work upon, as compared to other sectors. The Maharashtra Housing and Area Development Authority (MHADA) has decided to appoint a project management consultant (PMC) for the first phase of the Dharavi Redevelopment Project (DRP) i.e. in Sector 5. The patch of land spans 62.05 hectares, but some part of it is government land and high-tension electricity lines pass through another portion. Excluding these parts, and the land under the Coastal Regulation Zone, 17.22 hectares will be redeveloped. It should be noted that MHADA has already started construction of two multi-storey towers — permission has been granted to go up to 13 floors⁹.

⁹<http://www.mid-day.com/articles/now-management-consultant-for-dharavi-redevelopment/15321180#sthash.h14g4eJ4.dpuf>

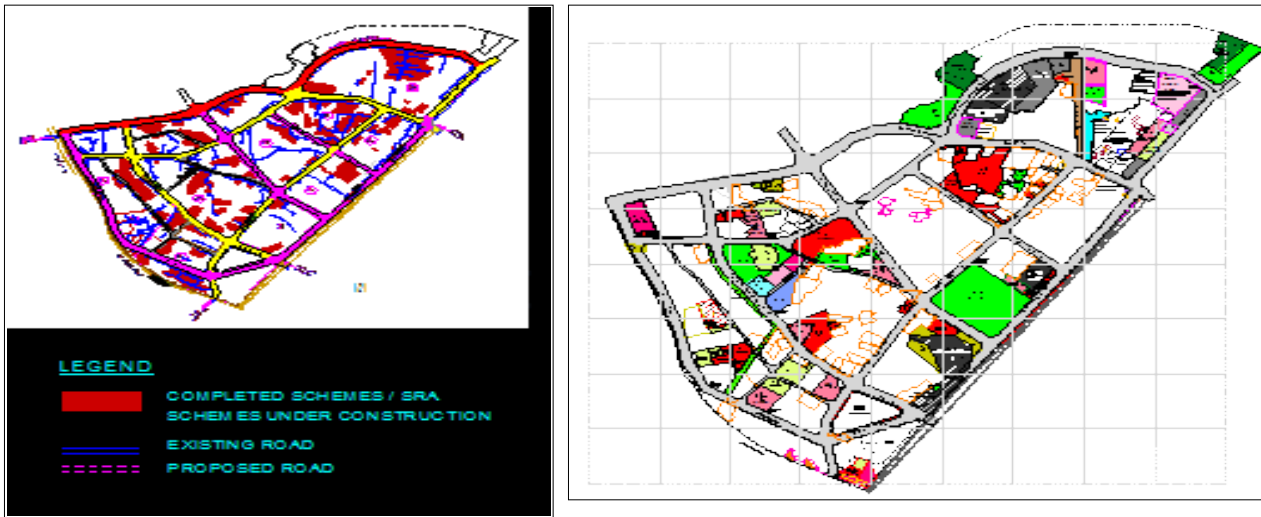


Figure 20 Dharavi Redevelopment Plan

The Mumbai Airport (MIAL) Rehabilitation project

The Mumbai airport land has been encroached by slums. As the city grows the airport is in urgent need to expansion. The slum pockets also pose a security threat not only from possibility of by passing the strict security of the airport but also from birds which can come in contact with the flying plane and cause damage to aircraft endangering the lives of passengers

Highlights

Largest Urban Rehabilitation Scheme in India

No. of Hutments 85,000 approx.

Scale similar to Town Planning & Urban Renewal Scheme

Approved FSI of 4

Airport Modernization & Expansion

Provide World Class Infrastructure

Generation of more than 10,000 jobs over next few years

Phase 1 of the project has already begun, with 85% of the work completed on a development in Kurla, intended to rehabilitate about 20,000 slum dwellers from Vile Parle, Santacruz and Sahar. The first 16,000 tenements are scheduled to be allotted shortly. It is the first step in a vast project, aimed at eventually freeing 275 acres of encroached airport land for development.

MHADA – Affordable House Builder

Maharashtra Housing & Area Development Authority, popularly known as MHADA, came into existence in 1976 following a state assembly Act passed in 1976. The main objective was to create opportunities for people from different social segments to own a home in the state at reasonable prices. MHADA Flats are allotted in four categories, which are based on the monthly income of the applicants. These categories include economically weaker section, lower income group, middle income group and higher income group. The income limitations for these groups are as follows:

EWS: less than Rs. 16,000/-

LIG: between Rs. 16,000 /- and Rs. 40,000/-

MIG: between Rs. 40,000 /- and Rs. 70,000/-

HIG: more than Rs. 70,000 /-

MHADA invites application from eligible applicants for housing the allotment of flats and tenements under a scheme that it announces in newspaper and online media. Accordingly, duly-filled application forms are received and a lottery is conducted to declare the names of winners and such as initiate the allotment procedure. Documents, such as domicile certificate, income certificate and birth certificate need to be produced and payments are required to be made in order to finally complete the allotment procedure.

In Mumbai, it has constructed about 30,000 housing units. In the last 6 years, MHADA allocated based on the Recently MHADA has come out with a low cost housing scheme offering 2,593 apartments in Mumbai and Mira Road in its May 2012 Lottery Scheme. However with the ever rising prices, the cost of homes is rapidly going up. Cost of MHADA houses in Dahisar, at the outskirts of Mumbai cost of homes is in excess of Rs 1 cr, way beyond



Figure 21 MHADA Tower

Authority, existence in 1976. The main objective was to create opportunities for people from different social segments to own a home in the state at reasonable prices. MHADA Flats are allotted in four categories, which are based on the monthly income of the applicants. These categories include economically weaker section, lower income group, middle income group and higher income group. The income limitations for these groups are as follows:



Figure 22 MHADA Layout

applicants for housing online media. Accordingly, duly-filled application forms are received and a lottery is conducted to declare the names of winners and such as initiate the allotment procedure. Documents, such as domicile certificate, income certificate and birth certificate need to be produced and payments are required to be made in order to finally complete the allotment procedure.

the purchasing power of Middle income and low income households. Since its 'low-cost' houses are increasingly getting more expensive, MHADA has now decided to set up a special fund to cross-subsidise such flats by tapping the profit it earns from the houses it builds for higher and middle-income groups.

Accordingly, from this year onwards, MHADA will deposit all the profits that it earns from the sale of houses for the middle-income and higher-income groups in this fund.

While the authority does not charge any profit on houses for the economically weaker section and the lower-income group category, it adds a 20 per cent profit margin to the houses it sells to the middle-income group and 35 per cent to the houses for the higher-income group. MHADA will, in partnership with private builders, supply 20,000 affordable apartments in the next few years.

Society Redevelopment

The city has many dilapidated and old buildings located on prime locations which are in urgent need of up gradation. Mumbai has 8600 buildings which are more than 80 years old, another 5000 which are century old and over 2000 buildings which are more than a century old and in urgent need of construction (source: Hindustan Times April 2013). Nearly 5000 old units constructed by MHADA are in dilapidated condition and in need to repairs and redevelopment. Most often these buildings are engulfed by new towers that have come up in recent times. These old structures therefore need redevelopment. If these buildings are ignored, they will not be able to withstand the environmental pressures with towers looming around them.

FSI or Floor Space Index means the area of construction allowed on a particular plot of land as per the Development Control Rules. FSI is an important consideration in determining the feasibility of redevelopment projects. In Mumbai, the permitted FSI for has increased since the time when the old buildings were constructed. A portion of this FSI difference accrues the developer, which is the incentive for the developer to undertake the redevelopment projects. Different lands have different FSI viz. for Slum, Tenanted, MHADA, Cluster or a Co-operative Society and also the project to be redeveloped.

As per Development Control Rules 33(7) of Mumbai, in the case of cess building, every tenant who is having less than 300 sq ft carpet area shall be given minimum of 300 sq ft ownership flat and the tenants having 300 to 753 sq. ft area, the existing area. Any area above 753 sq. feet will not be granted to the tenants. The state government has announced a floor space index (FSI) of 3 for dilapidated structures constructed before 1969. The extra FSI will hardly affect densely populated chawls, it will benefit those living in areas like Matunga, Byculla, Gamdevi, Mahim, and Dadar which have bigger plots with smaller population ratio. Recognizing the need to fast track redevelopment of old buildings, the Maharashtra Government has further amended the Development Control

Regulations (DCR) in respect to cluster redevelopment of buildings under the Urban Renewal Scheme (URS) for area's above 1 acre in the island city and 2.5 acres in Mumbai suburbs. Key provisions include attractive FSI of 4.0, increasing eligible number of buildings by reducing the minimum age of buildings to 30 years, and relaxations of minimum pathways and mandatory open spaces. However, if MHADA /MCGM undertake redevelopment directly on its own land, then this 70 percent consent rule is not applicable.¹⁰

Redevelopment can be a lengthy and risky process as it requires consent of 70% of the society members. The different stages in the redevelopment are enumerated in the table below.

Table 3 Stages of Society Redevelopment

STAGES OF REDEVELOPMENT
1. Offer letter to the society
2. Terms and conditions with the society
3. Agreement with the society
4. Sanction from MCGM in favor of the society
5. Loading of TDR in the society's name
6. Obtaining the IOD
7. Shifting of the members
8. Demolition of the building
9. Obtaining the CC
10. Construction of the new building
11. Obtaining the OC
12. Shifting the old members

Society Members sometimes do not give their consent for the process of redevelopment easily. This can delay the project for a long time. Also the procedures for getting permissions is lengthy, this delays the project further. One legal proceeding and the whole project suffers. It is advisable that the differences are solved amicably rather than legal rout. This is one of the major challenges of redevelopment

¹⁰http://www.moneycontrol.com/news/cnbctv18-comments/cluster-redevelopment-is-mumbais-skylinefor-change_1020557.html?utm_source=ref_article

Cluster Redevelopment



Figure 23 Buildings undergoing Cluster Development

Maharashtra government introduced cluster development in 2009. Planned and collective development of a large existing area — at least 4,000 sq meter — instead of constructing individual buildings on small plots. Under the scheme, a developer needs to prepare a master plan for the area, making adequate provisions for supportive infrastructure. Further, the developer needs to provide free-of-cost tenements to all original occupiers. The total FSI granted for cluster developments has been revised to 4 from 3. The FSI incentive could facilitate faster implementation of approved cluster projects that could create thousands of new homes, with well planned amenities and facilities e.g. the Bhandi Bazaar cluster development would provide new houses to 3500 families from 280 dilapidated structures spread over 18 acres. The developer is entitled to utilise the unused FSI as a free sale component which he can develop and sell on the open market. The biggest challenge for cluster developments is the identification of beneficiaries, which is complex, long and capital intensive

Case Studies

Kalpataru Sparkle - Bandra East – Old MHADA buildings redeveloped

Kalpataru developers have undertaken development of Old MHADA buildings in Bandra east. The project has been name Kalpataru Sparkle and is expected to be delivered in Dec 2014

Kalpataru Sparkle	
Project	Redevelopment of Old MHADA buildings
Tenant Profile	MHADA had constructed Middle income houses in Bandra east
No of Families	90
No of floors	G+4



Lifestyle Amenities	None
Building Infra	No lifts; Open Parking
Redeveloped Building	
No of floors	19
No of Residents	190
Amenities	Swimming pool, club house; jogging track
Building Infra	Best in class lifts; Parking

Figure 24 Redeveloped Building - Kalpataru Horizon

Wadhwa Horizon

Redevelopment of a privately owned society in western suburb of Mumbai.

Wadhwa Horizon	
Project	Redevelopment of Old Private society in Juhu
Tenant Profile	Middle Income houses
No of Families	30
No of floors	G+7
Lifestyle Amenities	Lift
Building Infra	No lifts; Limited Parking
Redeveloped Building	
No of floors	14
No of Residents	40
Amenities	Swimming pool, club house; Covered Parking
Building Infra	Best in class lifts; Parking



Figure 25 Redevelopment building - Wadhwa Horizon

Advantages of Redevelopment

1. Efficient use of land – As the city has grown the area's occupied by slums and old societies have become prime city centers. For a city locked by sea on both sides, redevelopment offers an opportunity to free up scarce land which can be used more efficiently to cater to the needs of the growing city

2. Clean, safe living habitats – Slums are a hive of criminal activity as they are unregulated and home to several fringe elements in the society. By redeveloping, these area's will become more organized and provide cleaner, safer living habitats
3. Reduced time for travel – by developing new housing closer to the city centers, the travel time to work would be reduced
4. Opened up infrastructure & better town planning – the government can use the land freed up to build infrastructure and use it as per the planned usage in the development plan
5. FSI is an important consideration as it defines the financial feasibility of the project. The government can create a Win-win situation of developers by providing extra FSI so that the developer is able to raise finances by selling and the whole scheme can work without the help from government

Future Outlook

The state government and the Mumbai municipal authorities have acknowledged and taken initiatives towards Mumbai's need to free encumbered land, optimize its usage and improve on its infrastructure to provide better living conditions to its citizens. Some of the infrastructure projects have been successfully implemented albeit with huge delays; Redevelopment and Slum development schemes have also seen successful implementation albeit not to the extent as is needed. A number of important infrastructure projects, housing redevelopment projects are stuck due to regulatory hurdles and delays in getting necessary clearances.

Challenges in implementation of slum schemes

1. Almost all projects where the percentage of ineligible slum dwellers was above 50 per cent had failed to take off. Existing norms permit resettlement of only those residing in slums that came up before 1995.
2. Several slums were occupying plots reserved for playgrounds and recreation grounds, where courts have imposed restrictions on development.
3. About 291 slum pockets housing over 12 lakh people exist on lands affected by the Coastal Regulation Zone (CRZ), where riders imposed on development by the Union Environment Ministry have "discouraged" development.
4. While allowing redevelopment of coastal slums, the latest CRZ notification has imposed a rider that state government must own 51% stake in such redevelopment. The rider has made the development financially unviable for several builders. While the SRA received 29 applications for their redevelopment in July this year, officials said none of these fulfilled the required criteria. Even the application filed by the state-run Shivshahi Punarvasan Prakalp Limited was rejected.
5. Financing – Slum projects are long gestation projects which involves settlement of the slum dwellers, clearing the land, getting approvals, construction of alternative accommodation before the developer is able

to generate financing for the project. In a market which is slowing down, generating the initial financing is challenging and several projects have got stuck because of it

6. Litigation – Approval of 70% of the eligible slum dwellers is required for the redevelopment of the slum. Various shoddy techniques such as arm twisting to get a slum dweller to agree to redevelopment, bribing to secure development rights and getting approvals are employed by developers. This leaves a huge scope for legal litigation which can lead to huge delays in the project and lead to deviations from the initial business plan. A number of slum projects are stuck due to this e.g.
 - a. Slum project in Bandra east comprising of 1000 slum dwellers where a group of 30-40 slum dwellers have alleged corruption and arm twisting
 - b. Slum project in Malad east where the government officials have been bribed to secure the land of cemetery in the project
 - c. Slum project in Worli where the dead body of a slum dweller was found near the excavation site. Some of the slum dwellers allege the death was a result of the person's opposition to the project
7. Lack of effective monitoring of ongoing redevelopment schemes.

Challenges in implementation of Society Redevelopment

1. Delay due to rising expectations of the society members – Mumbai real estate has witnessed prolific rises in the property rates over the last 10 years. The expectations of the society members is that the property prices will continue to rise in similar trend due to which the member's demand ever increasing rates for granting development rights to the developer.
2. Lack of trust in the managing committee – The society members bought flats at very low prices and have witnessed prolific rises in the property rates over the last 10 years Society redevelopment involves huge sums due to which there is a lot of distrust towards the management committee which has access to insider information and hence opportunity for underhand dealing. There have been numerous examples where the management committee has been remunerated over and above the members for favoring a developer
3. Financing – Redevelopment projects are long gestation projects which involves settlement of the existing tenements, clearing the land, getting approvals, construction of alternative accommodation before the developer is able to generate financing for the project. In a market which is slowing down, generating the initial financing is challenging and several projects have got stuck because of it
4. Litigation - Various shoddy techniques such as arm twisting to select a particular developer, bribing to secure development rights to a society, get approvals are employed by developers and society members. This leaves a huge scope for legal litigation which can lead to huge delays in the project and lead to

deviations from the initial business plan. A number of projects are stuck due to this e.g. redevelopment of MHADA units in DN Nagar, Juhu, by a reputed developer

The government has come out to various measures to ensure that the challenges are address,some of which can be is

1. Aid in clearing of slums & societies – the government can set up a body which can aid in the clearing of the slums. There will be greater trust and confidence on the government agency. The agency will have access to all the government resources and hence will be in a better position to speedily clear the land for development. The agency can also aid in clearing of society by playing a fiduciary role and ensuring nuisance creating elements are kept at bay and a scheme which is in best interest for all stakeholders is adopted
2. Initial financing – the government can set up a fund which will help all stakeholders in the initial financing of the project. Generally the risks are the greatest in the initial phase and at present there is no government agency which is providing capital for this phase. The fund will benefit from greater returns compared to conventional financing
3. Special courts – Government can set up special courts to address litigation for redevelopment projects. this will help in reducing legal delays
4. Model – the government can set up ideal development models similar to infrastructure which will provide the platform on which the project's can be executed. The model may be different for slum and society redevelopment
5. FSI based on the need of the project – some projects are more critical than others such as the airport redevelopment, development of Dharavi, development of social infrastructure such as school's colleges, hospitals etc. Land catering to these projects can be given incentives such as higher FSI, faster approvals.

There is a huge potential of optimizing the land in Mumbai which would lead to unlocking of economic potential of the city and better living conditions for its inhabitants

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Business Environment

Impact of SRA schemes

The slum schemes were formulated with the twin purpose of improving the living condition of the slum dwellers and monetizing the value of encroached lands which should bring something into state coffers. In the 15 years that the SRA has been at work in Mumbai, working on the existing cross-subsidy pattern under which private developers get incentive floor space index and the right to build free sale apartments in return for rehousing slum dwellers in situ, the agency has built less than 1,70,000 homes. That's a far cry from not only to the city's slum population of 8.6 million people, but also the original target of 5 lakh homes in five years. The main reason has been proxy wars between developers leading to litigation and delay of projects. Slum Rehabilitation projects are the breeding ground for corruption. With the nexus of builder-politician-bureaucrats, they have been creating havoc by evicting people in name of rehabilitation and have neither given alternative houses nor any right to land whether belonging to Central Government or State Government or a private party; where they have been residing for decades. If the people question or demand to see the list of residents or details of plan and land use, they are traced and harassed, even filed cases against. In fact it is because of huge vested interest in such schemes which is so strong, that the nexus is not ready to do away with their huge profit. The worst part, however, is that in spite of being officially eligible for huge profit invested in the scheme, the elite nexus has become the open ground for further irregularities and gained much more fraudulent land through corruption. Some of the SRA projects suggest a massive scam with top builders involved in this loot where the land has been appropriated without people's consent. Moreover, they have also included fake allottees in the list of 'to be rehabilitated' families, which are sold in open market to outsider ineligible persons. Each of these amounts to earning crores of rupees by the builders and their associate politicians and others. Investigations in 9 projects alone show a corruption of 7,411 Crore, in some cases whole land has been appropriated illegally and flats sold, flouting all norms and laws.

SRA Scheme and Total Cost

	Name	Area in Sq feet	Price per Sq feet	Total Cost
1	Antop Hill, 8 Housing Societies	8,29,327	15,000	12,43,99,05,000
2	Antop Hill, 7 Housing Societies	2,62,544	15000	3,93,81,60,000
3	Majaswadi, 22 Housing Societies, 22 Housing Societies, Jogeshwari	379516.67	15000	5,69,27,50,050
4	Babasaheb Ambedkar nagar	172967	16000	2,76,74,72,000

	(Mulund)			
5	Lokmanya nagar (Parel)	109928	35000	3,84,74,80,000
6	Mata Ramabai Ambedkar Nagar (Chembur)	740520	14000	10,36,72,80,000
7	Ramanagar – 18 Housing Societies, Ghatkopar	535000	15000	8,02,50,00,000
8	Sio, Koliwada	116100	22000	2,55,42,00,000
9	Golibar, Khar	1883000	13000	24,47,90,00,000
	TOTAL			74,11,12,47,050

Non eligible slum dwellers in SRA Schemes

	Name	No of Non Eligible in the housing list	Cost of the 269 Sq feet House	Total
1	622 fake cases in 8 Socities of Antop Hill, of which 300 to go to the builder	622	40 Lakh	2,48,80,00,000
2	All affidavits are fake in Antop Hill 7 Housing Societies, people have demanded cancellation of Annexure 2	976	40 Lakh	3,90,40,00,000
3	Babasaheb Ambedkar Nagar (Mulund)	127	45 Lakh	57,15,00,000
4	Golibar (Khar)	690	30 Lakh	2,07,00,00,000
5	Ramnagar (Ghatkopar)	300	40 Lakh	1,20,00,00,000
	TOTAL			10,23,35,00,000

Slum schemes were designed to achieve 2 tiered results improvement of social and hygiene level of families and Misuse of SRA schemes – Fight among developers to grab land

Slum schemes are not private dealings as per the order of Bombay High court

In Slum redevelopment schemes slum dwellers' cooperative societies can not enter into agreements with developers according to their whims and fancies. They cannot enter into or terminate development agreements without scrutiny or regulation by government bodies. Many slum rehabilitation projects land in court with disputes over the appointment of rival builders by slum dwellers, with each developer claiming majority. Development agreements are not purely private contracts and have a "public character" to them as the aim is to rehouse slum dwellers with dignity. Often the land belongs to the state, the BMC or the housing board. The state has a vital public interest in ensuring that the scheme are not trammled by private interests. Once a developer has made a proposal to redevelop a slum, authorities have to scrutinize whether a proposal involving change of developer is in the interest of slum dwellers and whether or not the new developer would fulfill the needs and requirements of the scheme and has the necessary capacity to do so and whether the new developer has the consent of 70% of slum dwellers. The authorities have to determine if the new developer would be able to fulfill all the requirements. The second developer cannot ride on the 70% consent given to the first developer as it would only lead to misuse of the scheme. The dispute between a society and the developer does not lie purely in the realm of a private contractual dispute. The dispute has an important bearing on the proper implementation of the slum rehabilitation scheme and its consequences go beyond the private interests of the society and the developer. The scheme involves other stakeholders, including public bodies which own the land, whose interest ought to be protected too. Such as the case of dispute between Lokhandwala Infrastructure Pvt Ltd and Om Omega Shelters. In 2002, Lokhandwala was appointed to redevelop a prime plot near the racecourse in Worli. Five hundred slum dwellers, who resided on the BMC-owned plot, formed two societies. In 2003, it applied for sanction. Nothing moved for six years and just as the BMC was about to approve the list of eligible slum dwellers with 95% supporting Lokhandwala, In July 2009, the two societies issued a letter terminating their agreement with Lokhandwala. That's when the dispute began. Lokhandwala moved the high court against the termination. Five months later, the cooperative registrar of SRA called for a meeting of the slum societies in February 2010. Lokhandwala rushed to court again, but the HC said it was premature. In November 2010, the two societies, at a general body meeting, claimed that 343 of 401 eligible slum dwellers present had consented to Omega. Based on this, the SRA CEO approved Omega as the developer on December 6. Lokhandwala, which challenged the SRA order, as "perverse" said its proposal had never been rejected. It argued, and the court upheld, that the new developer cannot do away with the requirement of 70% majority consent. Omega said it had individual agreements with over 80% slum dwellers. The slum dwellers argued that they were entitled to make a proposal and that the "developer is merely an agent of the cooperative society" to provide tenements. Holding that the SRA order left much to be desired, The HC set aside SRA's December 6 order favouring Omega and asked the SRA CEO to hear both sides again and decide whether Lokhandwala continues to enjoy the support of 70% slum dwellers

New Slum Policy

The new policy note under discussion suggests key departures from existing schemes. Returning the role of planning to the government, the proposed policy suggests that all of the city's slums be divided into independently developed clusters of two to five hectares by a planning agency such as the Slum Rehabilitation Authority. These would be auctioned through a tendering process. Builders pre-registered with the government will be invited to apply for tenders in the form of built-up area to be handed over to the state and a premium that may be a percentage of the land value. While drawing up of clusters helps achieve comprehensiveness in planning, the proposed policy gives priority to people's participation, calling for empanelled NGOs and architects, to be paid by the SRA or other agency, to assist in the formation of slum dwellers' societies and drawing up of building plans. The involvement of

the private sector comes at a later stage when the plan goes for bids. The same architect continues as a legacy to the developer. Officials have pointed out that the Afzalpurkar committee report of 1995, based on which the SRA was designed, called for a comprehensive review after 10 years, which was never done. Experts say that the idea of a comprehensive, city-wide rehabilitation plan could solve the problem of only slums occupying high-value lands getting picked by developers. Activists and urban planners are pleading that if a review of the SRA policy is finally being undertaken — and this would be the first review since the ‘free houses for slum dwellers’ policy was introduced in 1997 — then a piecemeal approach should be avoided this time. Whatever you may desire, slum dwellers declared ineligible for rehabilitation do not disappear into thin air. Any new policy must first rethink the free homes policy

Impact on Children

Currently a large number of slum-dwellers have been shifted to other locations because of development work such as road widening, construction of flyovers and implementation of SRA schemes. When this occurs, the number of school drop-outs increase. According to NGO Praja Foundation's white paper on the "status of municipal education in Mumbai", the drop-out rate has risen from four per cent in 2010-2011 to seven per cent in 2011-2012. The report also states that less than a decade ago, the municipal education system used to cater to over 7.5 lakh students, but now attracts less than 4.5 lakh students.

Due to SRA schemes, children who have shifted to different residential areas are unable to go to their previous school and are forced to study in schools near the transit camps. This crucial issue is contributing to the increasing number of school drop-outs.

If one looks at civic schools near the Mankhurd-Kurla belt, they are filled beyond capacity as many PAP transit camps are situated in these suburbs. There is a dire need to improve and increase school infrastructure in those areas

With civic schools reopening for the new academic year last month, the civic administration has also planned a range of other measures to ensure low drop-out rates. These include the need for semi- English schools, school buses and free bus passes for children who have to walk long distances, curtailing the misuse of schools not fully occupied and have been given to NGOs and private schools to use, monitoring activities of government aided private schools and exposure visits for public school teachers to private schools.

Impact on family & employment

SRA scheme has an adverse impact on the employment in the city. The relocation of slums changes the dynamics of the area as the local population is rehabilitated to different areas. Change in employment that comes with resettlement. The first issue concerns the changes occurring in the demographic structure, and their impact on the professional configuration of the active population, families having home-based income-generating activities have coped with resettlement and patterns of work localization before and after resettlement. The questions of income, expenditure and hence purchasing power are also important. The verticalisation of slums initiates the ‘nuclearization’ process leading to a reduction in family size. While slum families typically have an average of 5.50 members, this figure drops to around 4.5. These alterations in household structure could considerably influence the composition of the active population, and indirectly affect employment patterns changes in the family structure are not affecting a specific age group We could then intuitively assume that the drop in family size could

be attributed to the ‘non-shifting’ of indirect relatives. These are mainly men who have been progressively added to the core household as they migrated to the city in search of job opportunities, generating the kind of extended families that can be found in slums. At the same time, the percentage of adults engaging in an income-generating activity (or participating in the labour market according to the NSSO terminology) is significantly decreasing after resettlement. Housing is known to be highly flexible in slums. Several generations can follow one another within the same dwelling, which is progressively upgraded depending on the family’s needs and financial capabilities. On the contrary, in the resettlement site the housing characteristics are set at a ‘standard’ size (225 ft²). In many cases, entire households are not able to shift altogether and an implicit ‘selection process’ is carried out so as to decide which family members should shift, stay in the slum or find an alternative housing solution. This family-level rational economic reasoning, we believe, is driven by a trade-off between core family members and indirect relatives.

Slum Dwellers selling homes – New slum creations

A number of rehabilitated slum dwellers have been selling homes and relocating to other slums in the hope that they will be eligible for new houses in these schemes. It has become a source of easy money and political patronage. Increasingly the slum dwellers have been demanding the state government to legalize such sales. This will have an immense impact on the scheme. The state instead of completely banning such transactions has taken a middle ground. The new guidelines, issued by SRA and approved by the state government, say that both the seller and the buyer of the SRA dwellings will be debarred from buying or selling of such homes in future. The rules also state that the person or family intending to buy an SRA apartment should be domiciles of the state and should not own a house within the limits of the Brihanmumbai Municipal Corporation (BMC). The set of comprehensive guidelines is now applicable for the sale of houses that are allocated free of cost to slum dwellers under the slum rehabilitation schemes approved by the SRA. Benefactors through the SRA schemes do not use to earn huge profits by selling the homes at the sky-high market rates. Since the sellers stand to earn a handsome price for the flats, as per the current market prices, the state shall extract a premium share from the transaction. This will be known as a transaction fee and will be made binding in the registration of the documents of sale. The fee will be equal to the maximum stamp duty on the property, or Rs 1 lakh, whichever is more. For industrial and commercial tenements, the cap for transfer fee will be Rs 2 lakh and Rs 3 lakh respectively. The guidelines are similar to that of applying for MHADA homes. The buyer will have to submit a domicile certificate for acquiring an SRA flat. He or his family members should not own a house within BMC limits. After buying a house in an SRA building, the buyer or the original seller will not be entitled to make any more transactions in any SRA project. They will not be able to apply for a new home under any other government scheme, too. Similar to conditions applicable in MHADA, the buyer will have to be from economically weaker sections (EWS), lower income group (LIG) or middle income group (MIG). The sale deed will be in the name of both husband and wife, wherever applicable. No partnership firms or organizations will be allowed to purchase SRA homes. This trend affects the employment structure because most indirect relatives come out to be ‘subsidiary’, low-paid workers. Our results suggest that they are mainly men with low education levels who were added to the core family when they migrated, and who are old enough to start their own nuclear family. As they are professionally unstable and highly dependent on local slum employment, we think that they are implicitly withdrawn from the resettlement process. It actually makes economic sense for those having the most stable jobs and highest incomes to shift and live in a rigid and expensive form of housing.

