



Redevelopment of Industrial Land in Urban Areas: A Case Study of Textile Mill Land Redevelopment in Mumbai

Ramakrishna Nallathiga

Abstract

Bombay has shown how to build the enormous potential in industrial production and almost became one of the country's backbones of industries and economy. However, concentration of industries and industrialization have also left many demands on city's infrastructure and housing, and pressure began to mount on making the city inhabitable through shifting of industries to the outskirts. In the subsequent periods, 'decongestion' policies were laid down in the era of first regional master plan proposed both industrial as well as population decongestion, at a time when the population rise and industrialization were on move. This paper traces the changes in industrial planning and policy in Mumbai that have some important implications for the development of industrial land in cities.

1. INTRODUCTION

Now it is well recognized that industries play a very important role in the economic development of nations, regions as well as cities. Ancient historical records clearly express that human societies have conveniently moved from villages to towns with an expansion of economic base from agriculture based activity to industry and enterprise activity. Such organization is also founded on the principles of economic efficiency i.e. the industrial production could be maximized and trade can be undertaken with neighboring cities, regions and countries when all the activities are conveniently located at a short distance from each other i.e. transport and other information related costs are less. From the cradles of river basin civilizations, industries have played an important role in the shaping up of the society and its progress, particularly towards urbanization and modernization.

In the modern era, the organization of industry is not based on the organization of human skills alone but also based on several factors that affect their operations like technology, capital, access, knowledge, vicinity to logistics/market, competition, etc. Therefore, industries are becoming very agile in their manufacturing operations as well as their supply/distributional chains. However, industrial operations are inevitably exposed to a variety of risks arising out of the market conditions, technological changes and disappearance of the advantages over a period of time. These render the industrial operations either becoming obsolete or scale down over a period of time. Moreover, economic and financial factors as well as government policy play an important role in the

Ramakrishna Nallathiga, is Knowledge Manager (Infrastructure & Environment) Urban Management Resource Group, Hyderabad (AP). Email: krishnram_n@cgg.gov.in



thriving of industries as well as their vanishing. The abandoning of industrial operations due to a reduction in the scale of operations or complete shifting of operations results in throwing up of huge amount of land with potential for development because human settlements and infrastructure that come up around them in the due course of time.

It may appear as though land use changes and development takes place automatically in a city and new economic activities find place immediately. But this requires changes to be approved by the city planning authority and the city development plan has to make provisions for the same in order that such change takes place. In several cities, this does not happen with mere application for land use change and development on it; the whole process is ridden with great complexities and huge uncertainty gets built in the course of time. Some of the industrial uses have in particular been considered by some groups as vital part of the city and its historical past to be preserved and any redevelopment of land for other uses is highly contested by people. In fact, many times planners and development authorities also buy in these arguments and allow no change in land use and development of land, or even provide disincentives for their redevelopment, which stifles the economic growth of the city on one hand and makes it very expensive in spite of no value adding economic activity taking place on this part of the city space. Mumbai, one of the oldest and historic Indian cities, presents an experience of the same. This paper first traces the industrial location policy changes in the metropolitan region of Mumbai, which is an important aspect of the industrial development in Mumbai. Subsequently, it analyses Mumbai's experience of its inability to develop the old textile mill lands, which forms the focus of this paper. It is in this context that the provisions of the Charles Correa report are also discussed.

2. BACKGROUND

Mumbai is a major metropolitan city of India with a gigantic population of over 18 million in the urban agglomeration. It is an important city whereby the private corporate sector is strongly present and is considered as the economic powerhouse of the country even in the modern era after liberalization. Mumbai has been the industrial powerhouse of the country since the British. Industrial activity was the backbone of its economy and that of the whole state of Maharashtra. It was a prime centre for cotton processing that directly fed into the cotton mills that were established in the subsequent phases of history. Industrial activity led by the textile mills has spread across the city with several large and medium scale industries establishing themselves in the city and its neighboring areas in the post-independence era. The development plans and industrial policies of the State made provisions for the same through earmarking industrial zones for manufacturing, trade and logistics operations. While Bombay



has shown how to build the enormous potential in industrial production and become the country's backbone for industries and economy, the city also faced difficulties with maintaining the growth and quickly slipping into de-industrialization path that was also the focus of the state government later. Concentration of industries and industrialization has also begun to show negative effects like pollution and congestion, and the demand was coming for moving the industry to the outer areas.

Mumbai city development plan was first founded in the erstwhile Bombay Plan of Tatas but the government has formally started it with the enactment of Maharashtra Town and Country Planning Act, 1966. The Mumbai Metropolitan Region Plan (1970-1991) was the first plan prepared under the act which came into effect from 16 August 1973. This plan indicated the policy to be followed for the location of industries in the region and provided for review of this policy. The revised regional plan 1996-2011 has taken forward the concept of 'decongestion of population' of island city further to identify the major nodes in the suburbs that could act as potential CBDs, resulting in lesser and lesser population commuting upto the Nariman Point CBD. Yet, it has completely overlooked the potential industrial decongestion in the form of textile mills relocation (and land release), and it rather confined to light and medium engineering industries. It therefore also points out to the fact that this subject has been considered as a contentious issue in which the local government and local land policies were not willing to take any side but left to state government decision makers (bureaucrats and politicians) or courts of appropriate or higher jurisdiction came into picture as the decisions became contentious. Therefore redevelopment was not automatic as in other countries whereby the countries may have more uniform and coherent policies or the will of government to undertake the same.

3. INDUSTRIAL LOCATION POLICY

Industrial Location Policy was, however, first laid down through the Circular Memorandum of Industries, Energy and Labor Department No. IDM 1074/933982/Planning dated 26 December 1974. During implementation, as and when difficulties arose or when change in policy was necessitated, it was revised from time to time. The industrial location policy has therefore been in existence for 24 years until the liberalization policy announced by the Government of India, which was quickly followed by Maharashtra state. Government of Maharashtra formulated industrial location policy in 1993 and a comprehensive industrial policy for Mumbai Metropolitan Region came into force vide Government Resolution No. ILE 1092/3410/IND2 dated 4 May 1993.

The basic approach of the new industrial location policy has been to address the issues of declining employment in Mumbai and its suburbs, need for



modernization, diversification and expansion of the existing industries without sacrificing the objectives of decongestion and ensuring pollution free environment. The need for decongestion of the city - both in terms of economic activity i.e. industry, as well as human population was actually founded in the First city development plan (or Master Plan) of Mumbai for the period 1960-1985. Both industrial policy as well as regional development plan provided for industrial development through zoning, which has been the prevalent tool for a very long time. For the purpose of the industrial location policy and planning, the Mumbai Metropolitan Region (MMR) was divided into 3 zones (see Fig.1):

- Zone I: consisting of Greater Mumbai and areas of Thane Municipal Corporation, and Mira Bhayander Municipal Council;
- Zone II: consisting of areas of Kalyan and Navi Mumbai Municipal corporations; Ulhasnagar, Ambernath, Kulgain-Badlapur Municipal Councils; Bhivandi and Uran sub-regions and Vasai-Virar sub-regions; and
- Zone III: consisting of other areas within MMR.

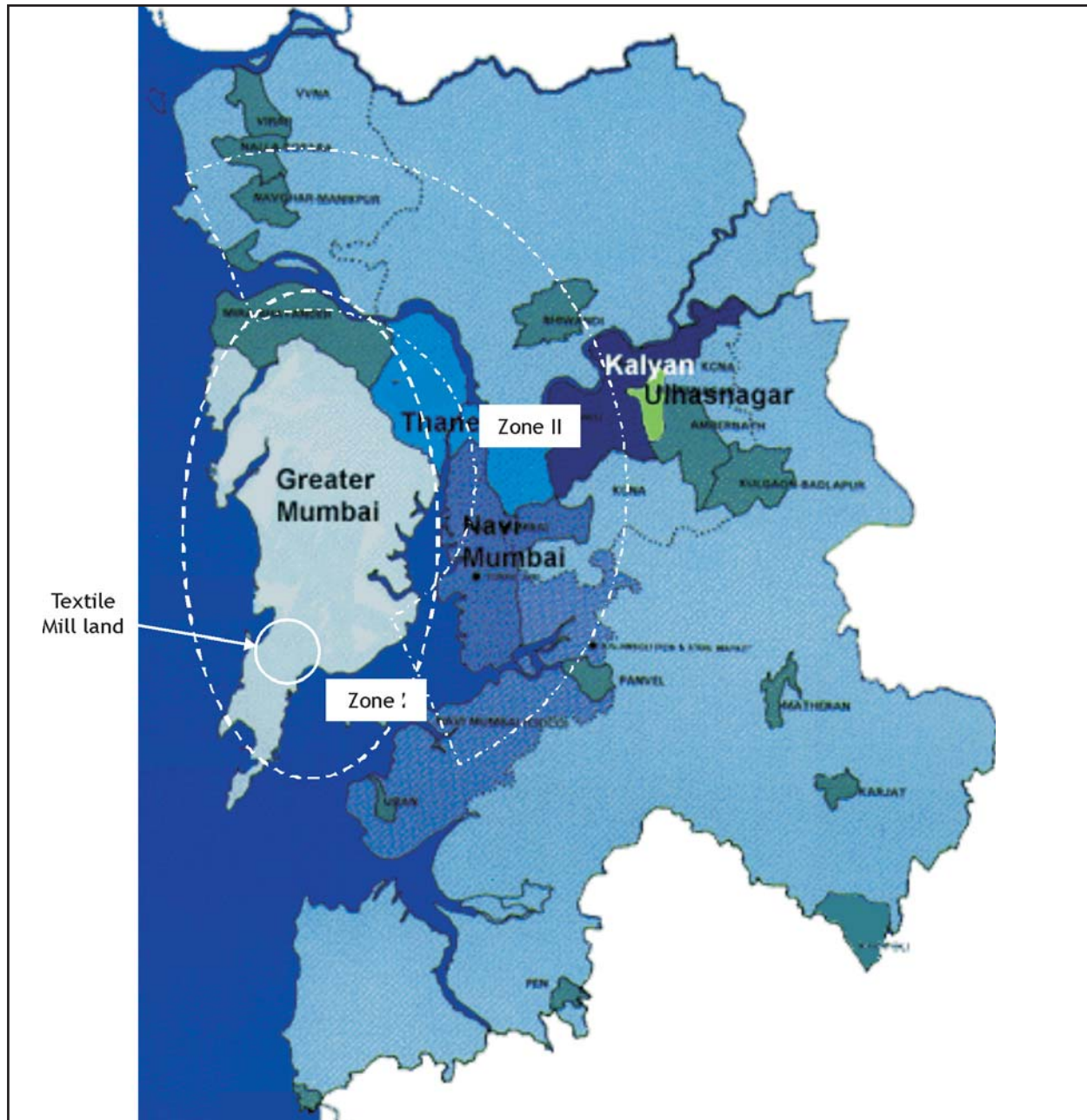
The Industrial location policy was subsequently formulated its Industry, Trade and Commerce Policy in 1995 by the state government. It has laid down the restriction norms for the location of various categories of industries (the restrictions are shown in Table 1). The industries were classified into four categories for the purposes of location in the MMR:

- Non-polluting, high-tech or high value added units as listed under Schedule - I;
- Engineering units listed under Schedule I - A;
- Highly polluting, hazardous or obnoxious units listed in schedule II; and
- Residual industries - not covered under Schedule I, IA and II.

The industrial location policy has accordingly made certain modifications:

- Expansion, modernization, diversification or change of manufacturing process has been allowed for industries in Schedule II in Zone I, provided the overall source pollution decreases and does not require additional power and additional built-up area for manufacturing purposes. The items under Schedule I were later expanded to include some non-polluting industries; and
- Certain sections of industries not listed in Schedule I and II, especially the Small Scale Industries (SSIs) faced hardships and as most of them were engineering industries located outside Greater Mumbai, it was felt that the industrial location policy should be revised. The revised industrial location

Fig. 1 Industrial Location Zoning in Mumbai Metropolitan Region



Source: MMRDA

policy was made applicable to all industries in MMR except Cotton Textile Industries, godowns, service industries and service industrial estates. The locational clearance was subject to the Union Ministry and State Pollution Control Board as well as the provisions under the Regional Plan for Mumbai Metropolitan Region, which laid down development zones and development control regulations applicable to land for industrial purposes.



Table 1 Industrial Locational Restrictions in the MMR

Items	Zone I	Zone II
<i>New unit, substitute unit for one that has closed down or relocation of a unit from elsewhere</i>	<ul style="list-style-type: none"> a. will be allowed freely for Schedule I industry b. will be allowed for Schedule I -A industries in Thane and Municipal Corporation and Mira Bhayandar Municipal Council areas c. will not be allowed for others 	<ul style="list-style-type: none"> a. other than units of Schedule II industries will be freely allowed b. Schedule II industries will be allowed only in MIDC areas. In other areas, after approval of Committee c. In Uran sub-region as defined in Schedule II no new/substitute unit will be allowed
<i>Expansion, modernization or diversification of an existing unit</i>	<ul style="list-style-type: none"> a. will be allowed for Schedule I industries b. will be allowed for Schedule I A industries in Thane Municipal Corporation and Mira Bhayandar Municipal Council areas c. will be allowed for Schedule II industries provided the overall source pollution decreases and does not require additional power and built up area for manufacturing purpose d. not covered under Schedule I, I A and II will be allowed upto permissible FSI, provided additional power is limited to 25 percent of authorized connected load by 1993 	<ul style="list-style-type: none"> a. expansion etc., other than Schedule II industries will be allowed b. expansion etc of Schedule II industries will be allowed only in MIDC areas, In other areas, it may be allowed only after approval of Committee mentioned
<i>Proposed industrial estate construction on an open plot</i>	<ul style="list-style-type: none"> a. will be allowed for housing Schedule I industries only b. will be allowed for Schedule I A industries in Thane Municipal Corporation and Mira Bhayandar Municipal Council areas c. will not be allowed for housing other than a & b above 	<ul style="list-style-type: none"> a. construction will be allowed for housing other than Schedule II industry b. in MIDC areas, construction will be allowed even for housing Schedule II industry
<i>Expansion of approved industrial estates (having final NOC)/ division of gala or structure</i>	<ul style="list-style-type: none"> a. will be allowed to house only Schedule I industries and Schedule IA industries in Thane Municipal Corporation and Mira-Bhayandar Municipal Council areas 	<ul style="list-style-type: none"> a. will be allowed for housing other than Schedule II industry b. In MIDC area, expansion / division will be allowed even for housing Schedule II industry



4. COTTON TEXTILE MILL LAND

Cotton Textile Mills in the Island city of Mumbai were India’s first modern industry showing to the world its capability to come out with one of the finest cottons at that point of time. The mills were located on lucrative stretches of land in Central Mumbai, which were given to the mill owners at concessional rates by the colonial Bombay Government in order to promote industrial production. Mumbai’s development as an economic hub was greatly enhanced by these very mills.

Till the late seventies, the Cotton Textile Mills were booming with activity. But in 1982 things changed. The unorganized power looms sector had taken over and it was becoming uneconomical to maintain large scale industrial units within the city limits on account of high power and octroi costs. Moreover, the 18 month long crippling strike by the mill workers proved to be the final nail in the coffin. All this led to huge losses and the running of the Cotton Textile Mills became unviable. Several mills were declared sick and a few even shut down their operations. Only a few managed to survive. It is important to note that the textile mills constituted an important component of the manufacturing industry in Mumbai, which was the backbone of Mumbai’s economy till the eighties. There were 58 cotton textile mills in Mumbai. Of these, 26 were deemed ‘sick’ and, therefore, taken over by the Government of India. The remaining 32 mills continued in the private sector.

The sick textile mills were proposing to sell off part or whole of their land for quite some years, allowing the redevelopment of the land. At the same time, the Development Control Regulations (DCRs) of 1991 sought regulating the redevelopment of cotton textile mill lands so as to generate open spaces and public housing for the city in a manner which would create coherent urban

Table 2 Some Key Statistics of the Textile Mills under NTC

Description	
Number	28
Land Area (Ha)	71.85
Mill Workers	18,536
Area per Worker (sq m)	39
Developable Plot Area / (Floor Space Area) (sq m), of which	567,718 / (755,065)
• Open Space (BMC)	189,239 / (189,239)
• MHADA, PSU and Housing	189,239 / (251,688)
• Commercial Exploitation	189,239 / (503,377)
Employment Generation in Residential Area (No.s)	3,356
Employment Generation in Office/Industry/Shops (No.s)	25,169



form. However, contrary to these intentions, several mills have closed down their operations, resulting in insecurity among labor on one hand, and piecemeal redevelopment of land on the other. In short, wherever redevelopment of land has taken place in mill areas, it has proved to be haphazard and totally commercial in nature.

Against this backdrop, the Government of Maharashtra issued a notification on 29 February 1996 setting up a Study Group to prepare an integrated development plan for the textile mills land on the basis of certain principles. Essentially, these include:

- prepare an overall development plan and strategy to create coherent urban form;
- provide housing for low income groups;
- allocate land for civic amenities and infrastructure; and
- generate new employment opportunities for the workers displaced by the closure of mills.

5. REPORT OF THE CHARLES CORREA STUDY GROUP

The Study Group was chaired by the eminent architect - urban planner Charles Correa and convened by V.K. Phatak and it comprised individuals like Deepak Parekh, D.M. Sukthankar, G.S. Pantbalekundri and A.N. Kale. The Study Group developed blueprint for redevelopment of textile mills land including the strategy and institutional changes for implementation in its detailed two volume report. It submitted its report way back in August 1996. Some key features of the Report are as follows:

- As a first step, the Study Group had appointed teams of architects, engineers and conservationists to visit the mill lands and appraise as well as document the various structures and other prominent features in each of them. The Study Group then strategized the development of disposable textile mill land by dividing into three equal parts i.e. (one-third each for public housing to be developed by MHADA, open spaces and public amenities, and the textile mills);
- The report gave detailed plans including drawings for the redevelopment of land in textile mills in the case of 28 mills under the NTC. These mills were visited by the Study team and the structures have been graded by the suitability or adaptability of buildings as well as the structural conditions of the buildings;
- It identified a triangular area between Matulya, Paragaon and Mumbai Mills, a sort of 'Golden Triangle', for mutually beneficial redevelopment of the mill area. Since three major arterial roads - Senapati Bapat Marg, N.M.



Joshi Marg and Dr. Ambedkar Road - were located in the area, redevelopment of the area would provide scope for improving the capacity of road as well as rail network. Similarly, it proposed the development of pedestrian plazas in front of the railway stations, shopping arcades for pedestrians along road lines, and also development of inter-modal junctions;

- Several old existing mill structures were not only memorable and valuable to be included in the 'heritage' list', but were also found to be robust enough to be recycled for modern services like studios and offices. Recycling of such mill lands will lead to the creation of a city centre with distinctive character, vitality and ambience, which adds another dimension to this vital metropolis. Therefore, the committee recommended designation of buildings by Mumbai Heritage Conservation Committee and recycling them to accommodate studios and offices;
- In order to contain indiscriminate springing up of high rise buildings and their vitiating of urban form, the Group suggested providing larger ground coverage while achieving the same FSI. However, to facilitate the comprehensive planning for the redevelopment of the private mills land, particularly in the Golden Triangle, the Study Group suggested provision of incentives through additional FSI up to 2, as it had been done in the case of Bandra-Kurla complex. This would lead to the development of energy efficient construction and also use of building facades to help define the streetscape, which would create visible landmarks and would set in motion regeneration of the Parel area;
- The Group also proposed that the development of public open spaces varying in size from large maidans to small neighbourhood parks should be developed so that a variety of different open-air activities could take place. Moreover, the integration of this with other objectives like pedestrian movement and tree development alongside the roads would result in transformation of this area into a pattern of green area in the centre of the city. Moreover, it recommended that the land designated for open spaces could also be used for other social facilities like schools, clinics or community centers depending upon the needs of the neighbourhood;
- Current DCRs stipulate utilization of TDRs against surrendering of the land to BMC for infrastructure and to MHADA for housing in the suburbs. The Study Group, however, sought utilization of development rights on the plot itself in case of surrendering of land for infrastructure. In addition, it also sought stipulation of the land surrendered to the MHADA to be used for reconstruction of dilapidated buildings or redevelopment of slums only. Moreover, it also suggested that the MHADA to sub-contract the construction of residences by providing specifications rather than by undertaking construction itself;



- The Group proposed allowing some of the developable land to be used for new high-tech non-polluting industries like computers and garment industry. This would result in the generation of a number of semi-skilled and unskilled jobs which would be equal to or more than those provided at present by the mills. Moreover, the semi-skilled jobs could be much higher if the support activities spring up from the multiplier effect of development of these industrial units. The 1993 Industrial Location Policy allowed development of such industries in the Island City of Mumbai;
- While seeking curbs on piecemeal development of land, the study sought the private mills to prepare an Outline Development Proposal (ODP) comprising of (i) map showing the area with road network, (ii) a plan showing existing structures (including heritage structures), and (iii) land allocation for the three purposes mentioned earlier along with an outline of the built form. This plan would be reviewed by a committee specially appointed by the Government for this purpose. The directives for the Committee should be mandatory for developing the ODP into a detailed proposal; and
- In the outlook for more comprehensive redevelopment of urban land, the Study Group also suggested large scale pooling up of land and its allocation to appropriate uses. The private sector mills could be encouraged to form a financial umbrella organization that would allow such regeneration. It also sought addressing of the other problem areas like *chawl* reconstruction, housing for the shelter less, parking of inter-city buses, repairs and reconstruction of old buildings while avoiding provisions under Rent Control Act and MHADA Act. It essentially outlined the need for comprehensive urban renewal plan for the Byculla-Parel- Dadar area.

The Study Group also noted that the key factor in the process of achieving this comprehensive redevelopment is the availability of finance. It identified the immediate financial needs of the textile mills to:

- pay compensation to the mill workers who would be laid off;
- purchase land and machinery and shift mills to an alternate site; and
- pay-off financial obligations

It sought facilitation of land laws that act as encumbrances for the free movement of industries and sought provision of finance to the mills through creation of corpus. The corpus was sought to be prepared through a consortium of banks and financial institutions. Further, it suggested advance trading on FSI may be allowed to facilitate the generation of funds for this purpose. Alternatively, a separate financial institution could be set up for the purpose of fund generation.

6. DC REGULATION 58: CHANGING CONTOURS OF TEXTILE MILL LAND DEVELOPMENT

Huge amount of land within the island city has become available on account of either complete or partial closure of the textile mills. The fate of these unused



mills land began to be spelt out with the new Development Control Rules (DCR) for the city, framed in 1991. These rules permitted the sale of a portion of the mill land in order to channel funds into the revival of the mills. These funds were to be used for clearing off financial liabilities of the mill owners like workers wages, VRS, retiring loans, etc. According to the DCR 58, in the case of redevelopment, entire mill land (either open or after demolition of existing structures) has to be distributed as follows:

- One third to the BMC for open spaces;
- One third to the MHADA for public housing; and
- Rest to be used by the owners/developers for commercial development.

Most of the private mills found the regulations of the DCR 58(1991) onerous and refused to go that way. Modifications to the original DCR were sought and in 2001 the government tabled an amendment to the DCR 58 (1991). According to the new rules, only 'open land' on which there was no construction was to be distributed in the manner laid down in the DCR 58 (1991). As a result of this policy change, a number of defunct private mill owners made a beeline to the civic authorities to have their plans for redevelopment passed and approved. Development of the sprawling mill lands in Central Mumbai provided momentum with BMC officially giving the green signal for the redevelopment plans of more than 15 private mills.

Further redevelopment of mill lands was also sought by the NTC who looked at selling 17 of its 25 mills in Mumbai and a proposal for the same was put forward to the BMC. In principle, the state government policy (DCR 58 2001) regarding the mill lands sale seeks to divide the land equally for commercial purposes, low-income housing and open spaces so that two - thirds is handed over for public interest. But in reality, this policy failed to achieve its purpose. This became quite clear when NTC put forward its proposal to dispose its mills in Central Mumbai.

According to the new provision, the NTC mill land coming to BMC and MHADA is a mere 38 acres when the total area of all the NTC mills combined is approximately 300 acres. Civic activists and architects tried to block the proposal as they believed that the city was entitled to a higher share of the mill lands. Mills have been seen as a rare and exciting opportunity for planned development in the city and few were ready to let it go. After a gap of more than a year (late 2004), the NTC was granted the permission by BMC for sale of seven NTC units in Mumbai and NTC decided to go ahead with the same. Shortly, thereafter, a public body approached the government saying that the ongoing mill land development was leading to overcrowding, haphazard planning and reduction of open space in the city. There was a general demand to re-look at the DCR 58 (2001) and bring changes.



Ensuing this controversy and chiefly to defer the sale of NTC and other private mill lands, a Public Interest Litigation (PIL) challenging the legality of the 2001 amendment to the DCR 58 (2001) was filed in the Bombay High Court in February 2005. A stay was sought on permissions being granted for further development under this rule and those pending clearances. The main contention was that the amendment is a major modification, which must be preceded by proper study and planning.

The NTC has also got an approval for development of seven of its mills from the Supreme Court. All clearances had been obtained by the NTC from the Maharashtra Government and BMC for the sale and redevelopment of seven of its mill lands. In an interesting move, the BMC and the State Government have accepted the seven mills as consolidated property when calculating the reservation for open spaces and public housing. While five mills are to be sold, the remaining two are to be handed over to the government authorities. The sale of five NTC mills will provide an additional development potential of approximately 3 million sq ft of space in the Central Mumbai real estate market.

7. CONCLUSIONS

It has been argued that the release of textile mill land has created a positive environment for development and reduced uncertainty in property markets, both of which led to improved performance of local markets in the border of CBD and suburbs. The property markets started functioning better as evident from property vacancies and this made other economic agents to react in a positive manner. Also larger changes in national and local economies after liberalization led to the emergence of Mumbai's new position of financial hub that led to investment inflows - FDI and FII. These economic forces have been driving local demand for property, which has the properties of both investment and consumption good. Such strong forces of demand would have led to optimism in the outcomes and hence made a strong case for possessing property, which would give both consumption benefit and any expected surplus returns over and above the costs of holding it. Therefore, changes in industrial land redevelopment is not only changing the physical and landscape contours of city but also underlying changes in property values, local economy and values.

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