Pankaj Joshi

Squatting began in Mumbai even before Independence in 1947 and continued growing. The first official census of slums was carried out by the State Government in January 1976 and 9,02,015 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. The government at that time decided that further encroachments would be effectively and ruthlessly stopped. Though initially ruthless mass evictions would clear some land but in totality, slums relocated in other parts of the city and their proliferation continued.

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 the lands not suitable for development – like low-lying marshy lands, hillsides and along railway tracks. The slum census did not include pavement dwellers. Majority of slums had come to be 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 175 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.

The average area of huts was as small as 12.5m^2 and only 12.72 per cent of huts were built of permanent materials. The rental market was significant with 48 per cent of households living as tenants. Sanitation was very poor and water supply was through highly inadequate community water taps. About 48 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.

Context

Mumbai, the commercial capital of India, continues to attract Migrants from the rest of India and, in particular, from the surrounding rural regions. Between 1941 and 1971 two thirds of the inhabitants of Mumbai were migrants, which led to an unprecedented increase in the demand for housing. However, a more significant trend to note is the growth of the informal sector. It has been estimated that informal sector employment increased from nearly half of total employment in 1961 to about two thirds in 1991, and that it continues to expand. The existence of a dual economy in terms of informal and formal employment and income is a reality and needs to be an integral part of city planning and development.

The informal sector is not comprised of a homogeneous group of people. The huge section of the population working on a variety of low paid tasks within the city comes from varying socio economic backgrounds. The most significant shared characteristic is that informal sector workers are vulnerable due to unprotected and unregulated labour and capital markets. For example, they do not have access to formal mechanisms of
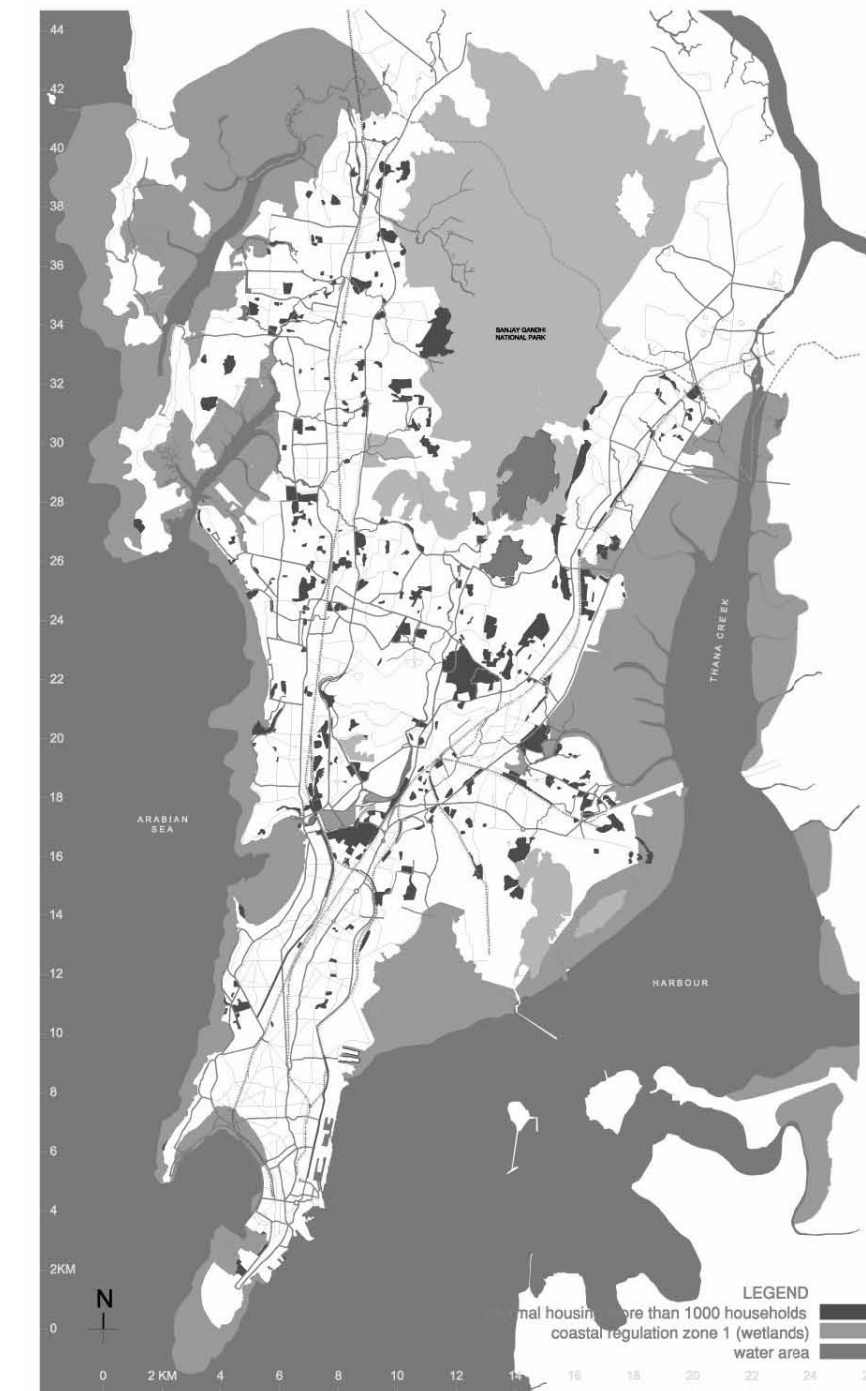
finance, labour protection laws or working benefits. The majority of slum dwellers work in the informal sector and represent a large segment of the underprivileged in Mumbai. Much informal sector economic activity is carried out within the slums, making them regions of productivity vital to the city's sustainability. This is in stark contrast to the popular image of slums as unproductive, unclean, hazardous places. Although it is difficult to calculate the exact economic contribution of the informal sector to the city, the cheap products and services it provides to the formal sector are only possible because the informal sector survives on low wages and maintains a low cost of living. Moreover, while the city may benefit from these cheap products, services and labour, it is at a cost and detriment to the slum dweller.

By the 80's nearly 50 percent (nearly 4.5 million) of the total population of Mumbai were living in slums out of which 70 per cent of the slum population resided in officially notified slums. With approximately 40 per cent of all slum households having an income below the poverty line, addressing the issue of housing reforms in slum rehabilitation and redevelopment was perceived to be an immediate necessity. This nightmarish housing situation was very adeptly presented by the state to have been handled through the post 80's housing reforms with an image of the "enabling strategy". This strategy retains an emblematic mark on the major late 80s and early 90s housing policies of the city. This enabling strategy, as accepted globally and nationally, recommended a two-way approach to the development of housing sector policies, with priority given both to enable the communities and to enable the markets (UNCHS, 1990)

Mumbai's slum redevelopment strategy of demolishing slums and building cross-subsidised housing for the slum dwellers on the original site has been implemented through three successive redevelopment programmes. The first programme started in 1985. At introduction, the programme was based on a policy of limited partial subsidy for the slum dwellers. However, a cross-subsidy component was subsequently introduced in the same programme. The second and the third programme further increased the cross-subsidy for the slum dwellers and developers.

These policies were initiated and complemented by the state with the creation of an "enabling" environment through legislative, institutional, and financial reforms, thereby encouraging various agents of housing supply such as formal and informal business sectors; non-governmental organizations and community groups to utilize their resources in housing sector development. However, in reality this took the form of 'structural adjustments', which relied on market efficiency to develop housing for the informal sector. As a result, enabling the community through indirect means was secondary to the enabling of the market in policies formulated at the national and state level, thereby resulting in a market-driven housing sector development, which largely neglected the needs of urban poor communities.

This paper seeks to look at few products of late 1980's and 1990's "enabling strategy" in Mumbai and tries to relate it to existing informal settlements in Mumbai through a graphic journey. The existing informal settlements have developed their own responses to the issues of infrastructure and services, which could identify pointers for a rational affordable, sustainable and appropriate rehabilitation. In the process the photo essay not only attempts to deconstruct the myth of slums being the unacceptable "modern culturally neutral" built form, but also portray slums as an acceptable culturally diverse

Greater Mumbai with the location of more than 3000 informal settlements each with more than 1000 household on paths, edges, wastelands, hills and intertidal areas copyright pankaj joshi

LEGEND
nal housing more than 1000 households
coastal regulation zone 1 (wetlands)
water area

Source: Author

solution to the housing issue of Mumbai city.

The Enabling Strategy

In response to the Global Strategy for Shelter, the Indian government formulated its National Housing Policy in 1988. The National Housing Policy (NHP) acted as a national level shelter strategy and provided a broader policy framework for holistic housing sector development in the country. Based on this, individual states were encouraged to develop their own housing programmes of sufficient scope to address the gravity of the housing problem. The main aim of the policy was to increase the supply of housing to meet the general demand, and thereby control the further proliferation of the slums and squatter
settlements (GOI, 1988).

The NHP formulated by the Indian government had several objectives, namely:

1. To enable poor communities to participate in housing sector development through access to land, material and finance;

2. Encourage investments in housing sector;

3. Deregulate existing regulations to create an enabling environment for involved markets to efficiently cater to demand; and,

4. To improve the environment of human settlements through the provision of basic services (GOI, 1988, 3).

In order to accomplish these objectives, the NHP recommended strategies such as, regularizing land tenure, creating a specialized housing finance system, reviving the rental housing markets, encouraging co-operative and group housing, institutionalizing the participation of NGOs, selectively deregulating inappropriate laws and regulation hindering the efficiency of markets and curbing the development of high income housing (GOI, 1988, 4). The National Housing Policy stressed the need and urgency to promote access to adequate housing for urban poor communities. It recommended specific strategies to address the housing problem by focusing on scaling up the programmes for improvement of slums, conferring land tenure, providing easy access to institutional finance, promoting saving schemes for housing and encouraging community participation (GOI, 1988, 7). The creation of the National Housing Bank (NHB) as an overarching housing finance institution was one of the main objectives of the National Housing Policy. The main aim behind the formation of the NHB was to mobilize savings from households and capital markets and to reinvest them in housing sector development, thus enabling the NHB to play a part in the larger economic development. This would ensure both economic and social development.

The major thrust of the National Housing Policy was enabling the privatization of housing sector development and the creation of a housing finance system providing affordable housing financed through the adoption of land reforms and housing reforms. The NHP, as part of its privatization strategy, encouraged the involvement of NGOs to propose, implement, and manage housing and urban service schemes for urban poor communities. It envisaged NGOs as playing a larger role in the mobilization of resources for the urban poor, thereby enabling them to participate in housing sector development. The NHP asked housing agencies and area development authorities to reorient their roles to act more as enablers, rather than as providers of housing provisions. Thus, the national slum policy formulated by the Indian government redefined its role by reallocating resources to develop housing finance systems, selectively deregulate regulation acting as an obstacle to the development process, enable institutional reforms to decentralize the institutional arrangement and create an institutional framework linking the government, the private sector, communities and the NGOs.

The period after the formulation of the National Housing Policy saw a conscious shift in housing policy in Mumbai. The new policies adopted by the Maharashtra state government focused on redevelopment, in direct contrast to the improvement and upgradation strategy adopted in the 1970s and early 1980s. The focus on redevelopment as a strategy was based on the incentive mechanism. Private developers were encouraged to redevelop the slums by cross-subsidizing them by selling the bonus developable area. The bonus saleable area was considered to be a very good incentive for developers in Mumbai, especially given the scarcity of developable land and high paying real estate investments (The Economist, 1995). Since 1990, the Maharashtra state government has adopted two different redevelopment polices namely, 1) The Slum Redevelopment Scheme (SRD) and 2) The Slum Rehabilitation Scheme (SRS).

The Slum Redevelopment Scheme was launched in 1991, as part of the sanctioned development control regulations for the city of Mumbai. It was designed as a decentralized, private sector initiative. The scheme promoted the redevelopment of slums through promoters, including owners, developers, cooperative housing societies of slum dwellers and non-governmental organizations. Redevelopment would involve in-situ resettlement of slum dwellers in apartment units of 180-225 sq ft. These units were partially subsidized; with slum dweller having to make contributions of 15,000 rupees (INR) per unit, while the balance construction costs were to be subsidized by the sale of additional floor space, allocated for development under the scheme. In order to make the scheme feasible, the development of additional floor area on the slum land was permitted, facilitating the expansion of the maximum built-area by more than 100 percent (GOM, 1997).

However, the SRD scheme placed two key restrictions on the redevelopment projects. First, it limited profit for developers to 25 % of their investment, and second, it capped the maximum allowed FAR (Floor Area Ratio) at 2.5. The SRD scheme failed because private developers did not find it to be very lucrative in most cases. The viability of SRD, as studied by the Mumbai Metropolitan Regional Development Authority (MMRDA), shows that the increase in the density of slums resulted in a reduction of the sale component of the redevelopment scheme, thereby making the project less attractive to the developer. A slum with a density of 500 tenements/ ha would occupy 40 % of the total FAR permitted under the scheme. But at the density of 1250 tenements/ ha, it would need a complete 100% of the FAR for rehabilitation (MMRDA, 1996) (Refer table 1).

The study further points out that the financial viability of the project largely depended on the density of slums and their location (refer fig 1).

Based on 1992 property rates for residential premises in Mumbai, the study analysed that the SRD scheme would be feasible for slums having a density of 500 tenements/ ha or less, located in most parts of greater Mumbai (MMRDA, 1996, 268). However, for slums with a density of 825 tenements/ ha the scheme would only be viable for slums located in an area with a residential property rate less than 13,200 INR (@ 1992 property rates) (MMRDA, 1996, 268). Thus, the scheme was largely rejected by the private sector on the grounds that it restricted and hindered its profit making aspirations.

In 1995, the SRD scheme was replaced by the new Slum Rehabilitation Scheme (SRS) which was initiated by a change in local government. The new redevelopment scheme removed the profit ceiling that had formerly affected profitability and also provided free housing to urban poor communities living in slums (GOM, 1997). Conceptually the new scheme was similar to its predecessor. The only difference was in the increased benefits provided both urban poor communities and private sector developers. Poor people benefited from free housing while the private developers benefited from the increased deregulation and additional incentives in the form of tax holidays and the transfer of development rights (TDR)[1] (Afzulpurkar, 1995). The SRS scheme was largely based on recommendations made by the

[1] TDR- transfer of development rights permits the transfer of unused development rights from one property to another. This was effective especially in difficult areas where the existing height and Floor Area Ratio (FAR) restrictions would prevent the utilization of the complete development rights on the existing site.

advisory committee[2] instituted by the state government to analyze the current and past housing situation in Mumbai.

Following are some of the salient features of SRS based on the recommendations made by the committee and approved by the government (Afzulpurkar, 1995; GOM, 1997,),

1) All urban poor communities residing in slums and squatter settlements in Mumbai prior to 1 January 1995 were eligible for being rehabilitated under the scheme.

2) Under the scheme all beneficiaries would be provided a standard area of 21 sq m (225 sqft).

3) The abatement of municipal property taxes for the first 10 years followed by a progressive increase over the next ten years.

4) It asked developers to establish a corpus fund of Rs.20,000 per slum dweller's house (approximately, 13 per cent of the estimated cost of construction) for future maintenance expenditure.

5) The scheme abolished the 25% profit ceiling implemented under the previous scheme.

6) It recommended different rehabilitation to sale ratios for different slum pockets based on location (refer table 5).

7) It removed the restriction on the total permissible FAR but restricted the in-situ consumption to 2.5, allowing the extra balance FAR to be consumed as TDR on other sites.

It relaxed many building codes regarding fire-safety requirements, minimum size of habitable rooms, open space requirements, etc. in order to increase the financial feasibility of redevelopment projects. In order to co-ordinate and monitor the implementation of SRS, a central autonomous planning authority called Slum Rehabilitation Authority (SRA) was created in 1997 under the Maharashtra Regional and Town Planning Act (MR & TP), 1966. SRA acts as a single-window authority reviewing and approving projects under SRS in Mumbai. It aimed at removing obstacle in the building approval process, which in the past had proven detrimental to the feasibility of many projects (GOM, 1997).

The extravagant expectations of the state government from the private sector to provide housing for urban poor communities proved to be short lived. The absurdity of a policy relying on the profit-oriented private sector to provide free housing to urban poor communities became evident when real estate values in the city plummeted in the late 1990s. However, in 1998, in order to revive the SRS the state government launched a company called Shivshahi Punarvasan Prakalp Limited

[2] The committee comprised of bureaucrats, private developers, and representatives of the civil society. This committee was headed by D. K. Afzulpurkar and was called as Afzulpurkar committee.

(SPPL), with a base fund of 6 billion INR (Indian Express, 1998; Bavadam, 1998). The primary aim of SPPL was to realize pre-election claims of the state government to provide 200 thousand tenements, by the year 2000, to urban poor communities residing in slums on public lands (Indian Express, 1998). In the process, SPPL assumed the role of a developer, while the private builders were treated as contractors (Bavadam, 1998).
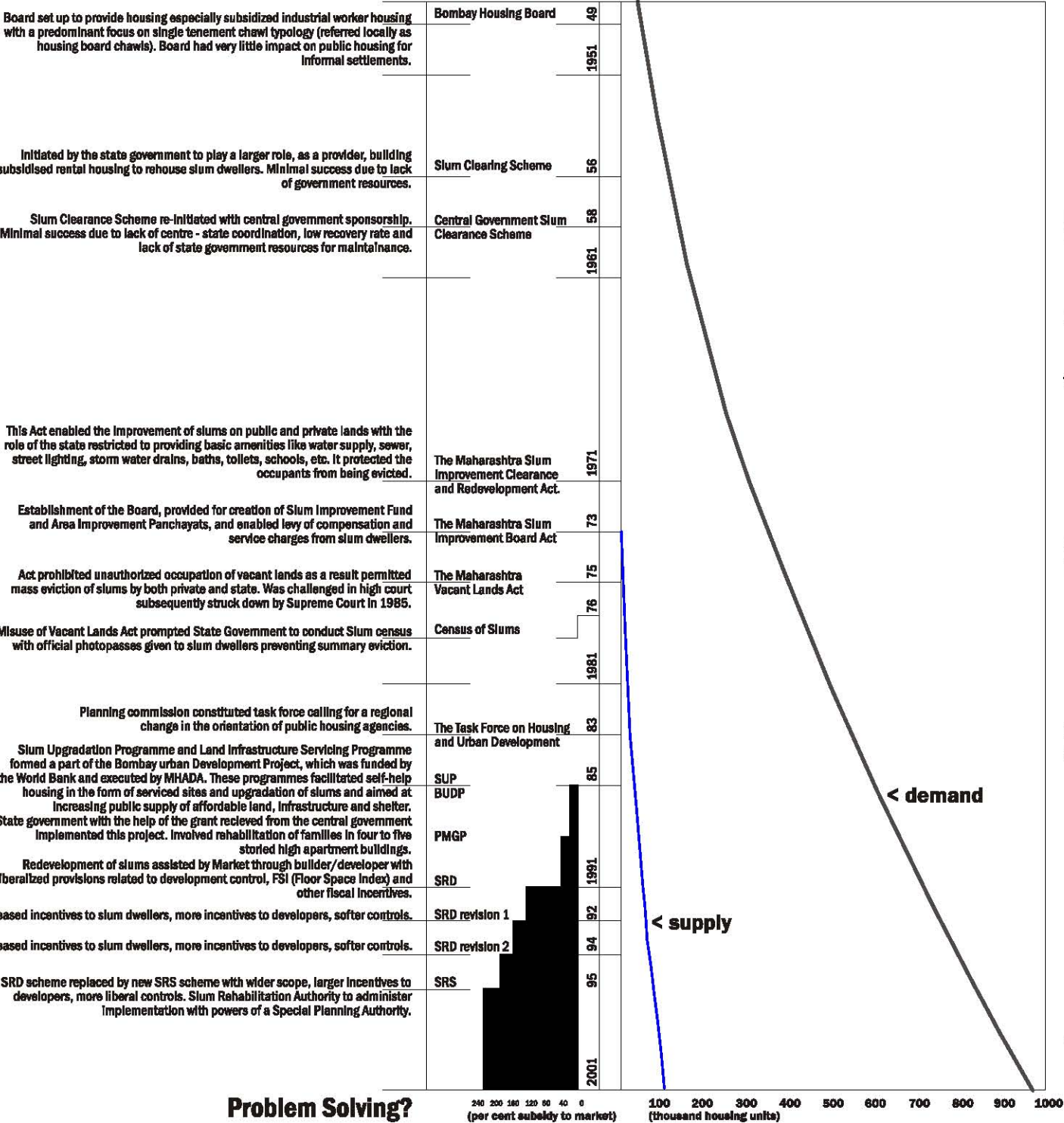
The SRS and SPPL have been extensively criticized by many as being pro-developer in orientation, by allowing developers a free hand to exploit real estate conditions under the pretext of redevelopment (TOI, 2003; TOI, 2001). The controversial slum rehabilitation policy managed to rehabilitate barely two per cent of the city's 1.2 million slum families in the past decade (TOI, 2003). By March 2000, only 3486 units had been built for housing slum dwellers through the SRS scheme (TOI, 2000). The Tinaikar committee[3], instituted to investigate into the SRS and SPPL, concluded that the rehabilitation project was flawed from day one and was infested with many irregularities favouring the private builders (Bavadam, 1998). The Tinaikar report unearthed various discrepancies in the functioning of SPPL. For example, the relaxation of guidelines on ad hoc basis, disbursement of funds in excess of actual need, granting special favours to a few developers associated with setting up of SPPL and, finally handing over public lands to private developers for an insignificantly low price.

Summary

In Mumbai the formal supply of housing is dominated by the private sector developers. In the period between 1984 and 1991 the private sector contributed almost 66% annual housing supply in Mumbai Metropolitan Region (MMR). The need for adequate housing has increased with the exponential increase in population. This is centered mostly in the suburbs of Mumbai and adjoining municipalities, which together constitute the Mumbai Metropolitan Region (MMR).

Since the 1960s the average annual demand for housing in the Mumbai Metropolitan Region has increased from 46,000 units in 1960s to 60,000 units in 1970s and further more to 66,000 units during 1981 -91 and 85,000 units annually during 1991 to 2001. However, the average annual supply of conventional

[3] Tinaikar committee was instituted by the new government, formed by the opposition, which came to power. This was in way an attempt to counter attack the ousted party that appointed the Afzulpukar committed to investigate the slum development scheme first launched in 1991 by the present government then. The committee was headed by the highly-regarded bureaucrat S.S. Tinaikar, who retired as Mumbai's Municipal Commissioner a decade ago.

Description	Name	Year
Board set up to provide housing especially subsidized industrial worker housing with a predominant focus on single tenement chawl typology (referred locally as housing board chawls). Board had very little impact on public housing for informal settlements.	Bombay Housing Board	49 / 1951
Initiated by the state government to play a larger role, as a provider, building subsidised rental housing to rehouse slum dwellers. Minimal success due to lack of government resources.	Slum Clearing Scheme	56
Slum Clearance Scheme re-initiated with central government sponsorship. Minimal success due to lack of centre - state coordination, low recovery rate and lack of state government resources for maintenance.	Central Government Slum Clearance Scheme	58 / 1961
This Act enabled the improvement of slums on public and private lands with the role of the state restricted to providing basic amenities like water supply, sewer, street lighting, storm water drains, baths, toilets, schools, etc. It protected the occupants from being evicted.	The Maharashtra Slum Improvement Clearance and Redevelopment Act.	1971
Establishment of the Board, provided for creation of Slum Improvement Fund and Area Improvement Panchayats, and enabled levy of compensation and service charges from slum dwellers.	The Maharashtra Slum Improvement Board Act	73
Act prohibited unauthorized occupation of vacant lands as a result permitted mass eviction of slums by both private and state. Was challenged in high court subsequently struck down by Supreme Court in 1985.	The Maharashtra Vacant Lands Act	75
Misuse of Vacant Lands Act prompted State Government to conduct Slum census with official photopasses given to slum dwellers preventing summary eviction.	Census of Slums	76 / 1981
Planning commission constituted task force calling for a regional change in the orientation of public housing agencies.	The Task Force on Housing and Urban Development	83
Slum Upgradation Programme and Land Infrastructure Servicing Programme formed a part of the Bombay urban Development Project, which was funded by the World Bank and executed by MHADA. These programmes facilitated self-help housing in the form of serviced sites and upgradation of slums and aimed at increasing public supply of affordable land, infrastructure and shelter.	SUP / BUDP	85
State government with the help of the grant recieved from the central government implemented this project. Involved rehabilitation of families in four to five storied high apartment buildings.	PMGP	
Redevelopment of slums assisted by Market through builder/developer with liberalized provisions related to development control, FSI (Floor Space Index) and other fiscal incentives.	SRD	1991
Increased incentives to slum dwellers, more incentives to developers, softer controls.	SRD revision 1	92
Increased incentives to slum dwellers, more incentives to developers, softer controls.	SRD revision 2	94
SRD scheme replaced by new SRS scheme with wider scope, larger incentives to developers, more liberal controls. Slum Rehabilitation Authority to administer implementation with powers of a Special Planning Authority.	SRS	95 / 2001

Problem Solving?

240 200 160 120 80 40 0
(per cent subsidy to market)

100 200 300 400 500 600 700 800 900 1000
(thousand housing units)

< demand

< supply

housing by both public and private sectors in the 1960s, 1970s, 1980s and 1990's has been only 17,600 units, 20,000 units, 57,400 units and 65,000, respectively. This existing gap between the conventional supply of housing and the demand for it has been filled by the informal sector.

Housing affordability in Mumbai has also been a major problem, which has hindered access to housing. Currently in Greater Mumbai, the price of residential properties depending on the location, accessibility, amenities etc. varies from 1,700 INR / sq.ft to 16,000 INR /sq. ft. The house affordability ratio in Mumbai is the highest in India, where the conventional housing price costs more than 13 times the average annual income. Many researchers have associated the exorbitant property rates in Mumbai to the inappropriate regulations like Urban Land Ceiling and Regulation Act (ULCRA) and Rent Control Act. The ULCRA hindered the supply of developable land, as most of the land notified under the act was locked in litigation, while the available land was being horded by speculators in search of higher gains (Desai, 2001). Thus the artificial scarcity of development land created by the implementation of ULCRA, along with the speculative nature of markets resulted in an escalation of land prices, which in turn, directly affected property rates.

The persistent inability of conventional housing supply to meet the actual demand has left the housing markets in Mumbai in a permanent state of disequilibria, which encourages speculation and profiteering motives of private markets. The high cost housing produced by the private sector largely excludes the majority of urban poor communities. They are unable to afford conventional housing and are forced to satisfy their housing needs through squatter settlements provided by informal markets.

Moreover, the Rent Control Act has wiped out rental housing as an affordable option to access affordable housing. In fact it has created a large stock of ill-maintained and old rental housing in the island city that is in immediate need of repairs. Thus, the urbanscape of Mumbai reveals a contrasting image of the housing situation in the city.

Post- 1980's housing policy developments in Mumbai exhibits how the housing enabling approach has failed to translate into a meaningful and appropriate policy at the local level. The housing policy implemented in Mumbai aimed to satisfy the profit making aspirations of the private sector, by giving them incentives to move down market to provide adequate housing for urban poor communities. The failure of these policies to perform favorably has left a huge gap in the supply and demand of formal housing in Mumbai. A demand of one million houses to reform the informal sector with the failure of all possible formal processes seems to be an impossible task with the current tools at hand.

The Slum Rehabilitation Schemes case studies presented earlier (refer plate 40 and 41 for rehabilitation case studies) exhibit a popular trend of slum dwellers selling off their new apartment homes and returning back into slums. What are the reasons that prompt rehabilitated slum dweller to exchange the flat for a slum; is it purely commercial or otherwise?

On a cursory look slums do provide certain advantages over the rehabilitated apartment. Although a multi-storied slum rehabilitation structure has 225sq. feet units for each family the agglomeration of high number of units on every floor is identical to the slums inhabited earlier. The informal occupational and social relationships to ground and adjoining units in a low-rise development is predominantly missing in a multi storied apartment block. The high cost of maintenance and subsequent failure to maintain the energy intensive multi storied apartments in turn negates the process of improving the financial status of the rehabilitated slum dweller.

Housing reforms in the city are often seen only in terms of transforming the predominantly primitive / pre-industrial (Rappoport 1969) built form into a post industrial "modern" form without bringing about any corresponding change in the informal economic relations that characterize the life of its inhabitants. For example, how would you expect a "manja" maker (glass powder laced thread for flying kites) to operate from his 225sq.ft. apartment block when the inherent occupational functionality requires a long space of 3feet wide by 100 feet long. This occupational requirement is very well accommodated in the informal settlement where accesses and edges are adapted for these activities. Despite its often spontaneous and improvised character, the informal sector has provided virtually the only delivery vehicle which had had any success in providing appropriate, low cost solutions to the shelter problems of the urban poor.

Existing informal sector housing, the slums, therefore represents the solution rather than the problem. It is, moreover, a solution that appears to deny conventional planning orthodoxy. The priorities of the slum dweller are frequently not those of the authorities or the developers. Space takes precedence over permanence, function over aesthetic. A porch may be built before a bathroom; a workplace may be more important than a private bedroom. The apparent inversion of values is especially evident in the public spaces and its applications as work places. Whereas planned rehabilitation/ redevelopment scheme projects usually incorporate rudimentary, monotonous, minimal circulation spaces, the public spaces of slums are characterized by their richness and diversity. The present day "standards" are a poor tool indeed in this process, whether it is 180 square feet or 225 square feet is immaterial. They reflect a view of politically optimal solutions that is not only culturally inappropriate but also inadequate. A new set of standards needs to be evolved. These standard

Table 1: Analysis of the slum density and area required for rehabilitation in SRD scheme.

Density of slum (tenements/ ha.)	Percentage of floor area ratio required for rehabilitation
500	40
825	66.67
1000	81
1250	100

Source: MMRDA, 1995.

Table 2: Ratio between the rehabilitation and market sale area.

Location	Existing Rehabilitation FAR	Permitted Market-sale FAR
Island City	1	0.75
Suburbs	1	1
Difficult Areas*	1	1.33

Source: GOM, 1997; Mukhija, 2001, 800.
*The difficult areas were areas declared by the authority and comprised of location, which has high density of rehabilitation component in comparison to its property ratethat hindered the viability of the rehabilitation scheme.

should seek to accommodate, rather than redevelop. They should reflect the harsh reality of urban poor, and they should respond to their special needs not to an idealized set of criteria.

An additionally important fact to be considered is that the informal settlement with its survival economy represents the recycled city, which is an antithesis to the energy splurge of the formal city. A negligible component of energy, mostly recycled, is the only input required in the built forms of the slums (refer plate 37, 38 and 39 for recycled built forms plate). These recycled built forms are the enterprise zones for further sorting and recycling of all forms of garbage be it paper, glass, metal, plastic, electronic components, chemicals, organic matter even toxic wastes. This recycled component does translate into reducing the absolute costs of living in the city. Therefore in the context of rehabilitation, reconstruction of one million housing units it would be important to note that in "modern" reinforced cement concrete apartment blocks the relative environmental impact would entail complete annihilation of the regions environmental assets.

If we think rationally, now is the time to acknowledge the diversity of slums as 'service providers' and revisit all the processes of slum upgradation, rehabilitation and resettlement undertaken so far. Reinstate these with the tools of slum
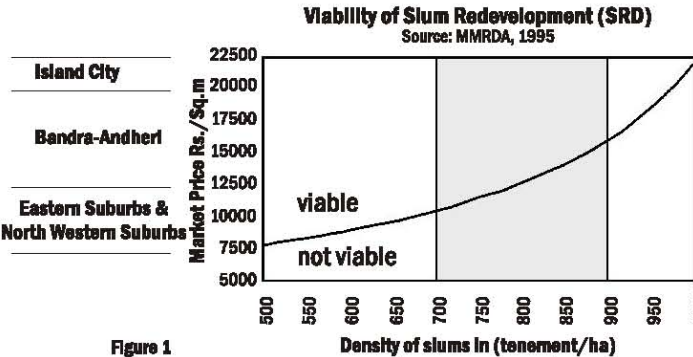

Figure 1

networking (introduction of services and amenities) and slum organizing (re-arranging built forms and services through negotiation of all stakeholders with assistance of local NGO and CBO's to create avenues for slum networking) developing an appropriate amalgam of applicable processes for creating the "New Landscape'.

This "New Landscape" would be with a vision, an overall aim for the regeneration process; this aim will be assessed and based on sound social, cultural as well as economic potential and with clear participatory planning and design input in it.

Where the strategy, with its major planks and direction to achieve the vision, will be precise and avoid idle romanticism. Where the legal and financial framework, with objectives of all stake holders, the slum dwellers, the authorities and the developers, will be defined, adapted, accommodated and recorded right from the beginning.

Where the sensitivity of approach, understanding of the political framework, locally, regionally and nationally will be undertaken with a better understanding of the wider issues in the area and where a people's participatory process, with realization of the hopes and aspirations of the people on the ground through recognition of the commitment of local communities in the decision making process will dictate their future.

Learning from the five decades of experiences therefore would not merely imply to replicate and transform symbols and built forms, as seen in many recent rehabilitation processes, to give a familiar end product. It will involve recreation of the underlying building process in its creation that gives it a sense of wholeness and helps users to identify with the built environment. It will consist of an evolving process in which the users have the freedom to decide on the number of variables, which have to fall in place in order to help the built environment to grow with their needs. It will not be merely trendy, pop aesthetic possibilities but

a responsive set of values, which generate a highly stimulating and appropriate architecture: a fabric truly representative of socio-economic, cultural and environmental circumstances. This in turn, would destroy the one to one correspondence between economic relations and built environment by demanding that the formal system actually pushes forth for an affordable, appropriate and sustainable agenda for the built environment of cities.

Bibliography

Appadurai, Arjun. "Deep Democracy: Urban Governmentality and the Horizon of Politics." Environment and Urbanization, 13.2 (2001): 23-43.
Afzulpurkar, D. K. Programme for the Rehabilitation of Slum and Hutment Dwellers in Brihan Mumbai. Mumbai: Government of Maharashtra, 1995
Bhatt, Vikram and Rybonzynski, W. "How The Other Half Builds." Center for Minimum Cost Housing, McGill University, Montreal, 1984
Bavadam, L. "A Controversial Scheme". Frontline 15 (18) (1998). Retrieved, June 17, 2003, from source: http://www.flonnet.com/archives.htm
Correa Charles (1989) "The New Landscape - Urbanisation in the Third World" , London : Butterworth Architecture.
Desai, V. Community Participation and Slum Housing. New Delhi: Sage Publication, 1995.
Desai, P. "The Bombay Urban Development Programme, Mumbai, India." Third World Planning Review 23 (2) (2001): 137-154.
Government of India (GOI). National Housing Policy. New Delhi: Ministry of Urban Development, 1988.
Government of Maharashtra (GOM). Guidelines for Implementation of Slum Rehabilitation Schemesin Greater Mumbai. Mumbai: Slum Rehabilitation Authority, Housing and Special Assistance Department, 1997.
Mitlin, Diana. "SPARC: Developing New NGO Lines." Environment and Urbanization, 2 (1) (1990): 91-104.
Mumbai Metropolitan Region Development Authority (MMRDA). Draft Regional Plan for Bombay Metropolitan Region 1991-2011. Mumbai: MMRDA, 1995.
Mukhija, Vinit. "Enabling Slum Redevelopment in Mumbai: Policy Paradox in Practice." Housing Studies 16(2) (2001): 791-806.
Patel, S., et al. "Beyond Evictions in a Global City: People-Managed Resettlement in Mumbai." Environment and Urbanization, 14.1 (2002): 159-172.
Rappoport Amos (1969) House Form and Culture, New Jersey : Cultural Geographic Series, Prentice Hall Inc.
Tiwari, P. & Jyoti, Parikh. Housing Paradoxes in India: Is there a solution. Building and Environment, 35 (1) (2000): 59-75.
Tiwari, P. & Jyoti, Parikh. "Analysis of Bombay Housing Markets: Policies and Programmes". Urban India 16 (2) (1996): 1- 42.
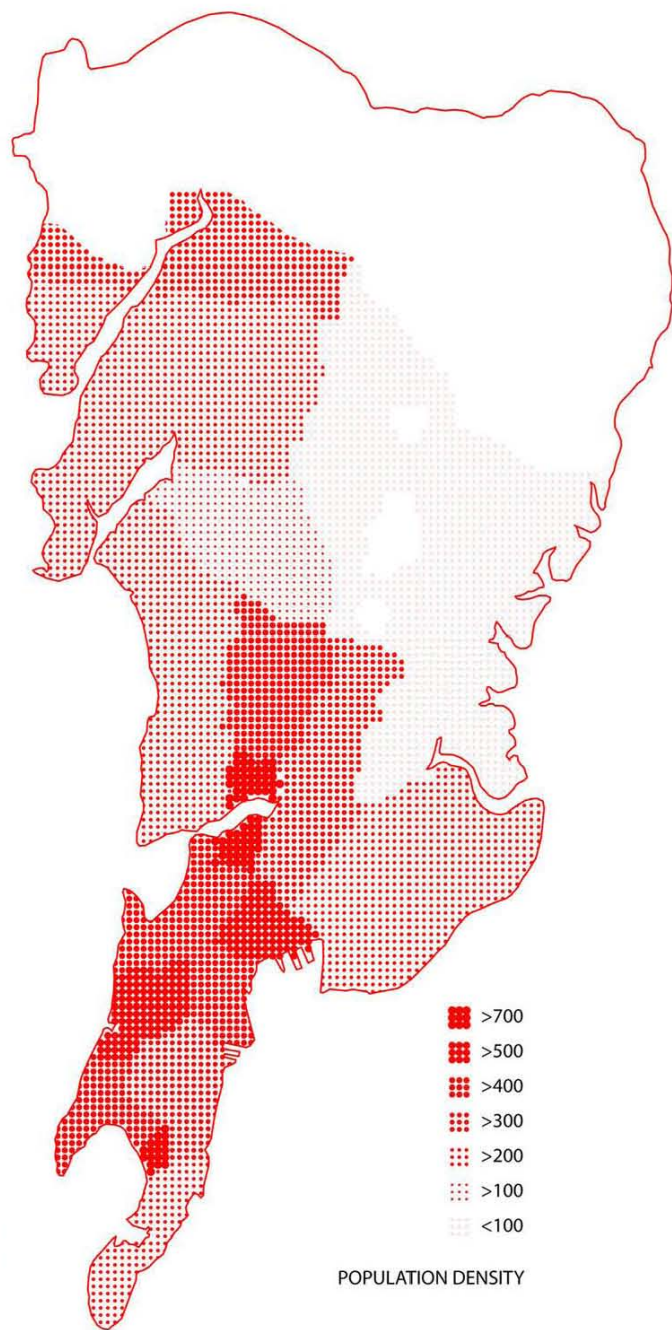TOI. "Maharashtra Government scraps Slum Scheme." Times of India 12 March (2000). Mumbai eds.
TOI. "The Slum Rehabilitation Scheme was flawed from Day One." Times of India 29 August (2001). Mumbai eds.
TOI. "CM Vows to Speed up Slum Resettlement." Times of India 28 January (2003). Mumbai eds.
United Nation Centre for Human Settlements (UNCHS). The Istanbul Declaration and Habitat II Agenda. Istanbul: Habitat, 1996.
United Nation Centre for Human Settlements (UNCHS). Cities in the Globalizing World. Nairobi: Habitat, 2001.
Vora, P. National Housing Bank: Role and Function in Housing Sector. (2000). Retrived, August, 18, 2003, from source: http://www.shilpabichitra.com/shilpa2000/indart14.htm

POPULATION DENSITY

▓▓	>700
▓	>500
▒	>400
░	>300
⠿	>200
⠒	>100
	<100

MAXIMUM CITY, MAXIMUM SLUM

MUMBAI HAS 15% OF THE COUNTRY'S SQUATTERS

A TALE OF TWO CITIES

People in dwellings unfit for human habitation	
All India	4%
Mumbai	54.1%

Percentage of Mumbai's children in slums

60%

Maharashtra's share of country's slum dwellers

25%

Total number of slum dwellers in Mumbai

6.5 million

Slum dwellers in Delhi, Kolkata and Chennai

1.9m, 1.5m & 0.8m

By Samiran Chakrawertti/TIG

Slums are an intrinsic part of the reality of city life now, whether it's the chawls in Mumbai, the jhuggi-jhopdis in Delhi or the bastas in Kolkata, and here's good reason why: almost a quarter of the population of million-plus cities lives in slums.

There are as many as 42.6 million slum dwellers in the country, which means that over 4% of the population lives in "dwellings unfit for human habitation", according to census figures released recently.

Mumbai's fame as the city of dreams means that it has the most dramatic slum situation in the country. More than half the city's population, and significantly, over 60% of the city's children, lives in slums and Greater Mumbai's 6.5 million slum dwellers far outnumber those in any other city, and accounts for 15% of the entire slum population of the country.

Delhi has 1.9 million inhabitants in its slums and Kolkata next with

1.5 million. Chennai with 0.8 million, Nagpur with 0.7 million and Hyderabad with 0.6 million have the next biggest slum populations.

However, evaluating the slum situation as a proportion of the population of a city gives a completely different picture. While Mumbai's 54.1% still remains the largest fraction of slum dwellers, Faridabad and Meerut are unexpectedly next on the list, with 46.5% and 44.1% slum dwellers in those cities. Nagpur and Kolkata are the other two cities with over 30% of their populations living in slums. Patna, on the other hand, has the lowest proportion of slum dwellers, at only 0.3%.

Another area of concern is the six million children living in slums across the country. Given the unhygienic living conditions in slums, it puts their health at significant risk. Maharashtra, Andhra Pradesh and Haryana face the biggest problems on this front—more than 25% of children in urban areas live in slums.

The situation is especially grim in Mumbai, with over 62% of children in the city living in slums, as also in Faridabad (50.6%), Meerut (48.5%) and Kolkata (38.3%). Largely due to Mumbai, Maharashtra accounts for over a quarter of all slum dwellers in the country, with 11.2 million. Andhra is next but a long way behind, with over 5 million, and UP and West Bengal each have over 4 million people in slums.

In terms of proportion, Meghalaya has the largest proportion of slum-dwellers in its cities with 65% of the city-dwelling population living in slums. Maharashtra has the next highest proportion, at 33.3%, with both Harayana and Andhra Pradesh at around 32%. The census also gives figures for literacy rates in the slums, which don't fare too badly with an overall literacy rate of 73.1%, with 80.7% male literacy and 64.4% female literacy. This is significantly better than the literacy rates in the country, which is about around 65%. It is, however, lower than the urban literacy rate of 80%.

■	<1500
■	1500-2500
■	2500-5000
■	5000-8000
■	8000-10000
■	10000-15000
■	>15000

PROPERTY PRICE INDEX
Rs./ Square Foot