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A review of slum housing policies in Mumbai¹

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Mumbai (Bombay) is India's main industrial and commercial centre. According to the United Nations it is the seventh largest city in the world with the fifth fastest rate of population growth. Over half the population, however, live in conditions of abject poverty, crammed into overcrowded slums and hutments located in unhealthy marginal environments. There are many complex reasons for Mumbai's housing crisis, including strong population in-migration and growth. Former urban development policies favoured capital-intensive industries and the rapid growth of a low-wage informal sector. Subsidised transport systems allowed poor people to live and work in the city. Mumbai's poor housing is also a reflection of a poor and inappropriate urban planning system, a lack of public investment and restrictions in the land and rental housing market. The failure of the city authorities to cope with the urban poor is highlighted by a review of the main housing policies implemented in the city. These range from slum clearance and the construction of high-rise apartment blocks to a range of self-help strategies and current privatised market-led schemes. Trapped between dwindling public investment and new powerful market-led forces, it is contended that the future of housing the poor in Mumbai looks bleak. © 1998 Elsevier Science Ltd. All rights reserved

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Introduction

Mumbai is India's premier industrial and commercial centre. The city accounts for about one-tenth of factory employment and manufacturing value-added in India, three-fifths of jobs in the oil industry, two-fifths of domestic air traffic and one-third of all tax revenues collected nationally (Swaminathan, 1995). The port of Mumbai handles more than one-third of the total value of foreign trade. About one-third of foreign tourists travelling to India visit Mumbai and 90% of them arrive by air (Deshpande, 1996). As India's economy becomes more open, with market-led economic liberalisation policies in place, the strategic location of Mumbai with respect to global markets

and its capacity to encourage the growth and development of financial and business services gives it the potential to emerge as a major international city of the 21st century (BMRDA, 1995). These aspirations are symbolised by the new 30-storey Stock Exchange, completed in 1985 containing 19 of the 21 foreign banks' regional (ie South Asia) offices (King, 1991). Thus, the city has an important role to play, not only in generating economic growth for the nation, but also as a potential facilitator helping to integrate India's economy with the rest of the world. Basic to such developments, however, is the provision of high-quality infrastructure, including telecommunications, transport, office complexes, housing and a good living environment.

As a result of its industrial and commercial pre-eminence within India, Mumbai has become one of the world's "mega cities". The population of the Mumbai urban agglomeration in 1991 was 12.5

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¹"...the unintended city." (S. P. Modi, quoted by Da Cunha, 1996; p 80).

million (Swaminathan, 1995), making Mumbai the sixth most populous city in the world. However, this figure is for the censused population only and there is a substantial number of people who are not included in such official totals. The reality is that over one-half of Mumbai's population lives in conditions of abject poverty, squalor and deprivation (Hardoy and Satterthwaite, 1989). The poor live in overcrowded slums and hutments, on pavements, along railway tracks, beside pipelines, under bridges, on ill-drained marshland and in other vacant spaces available to them (Figs 5 and 6). Although not strictly categorised as "slums", many others live in relatively old and dilapidated single room tenement chawls (Fig. 7). The slums and hutments are located in highly polluted and unhealthy environments as a result of proximity to industrial emissions and effluents, and/or from poor sewage, drainage and irregular garbage clearance. It is against this background that the claim that "...Indian cities have become bulging overgrown villages and slums..." has been made (Desai, 1988; p 67) and that Mumbai itself has been described as "...the unintended city." (Da Cunha, 1996; p 80).

This paper provides an analysis of the slum and squatter settlements in Mumbai and the changing policy response to the problems they present. Policy change has itself been informed by the development of theory in relation to the housing of the urban poor in the developing world. A series of stages may be identified, beginning with the simple copying of "western" models of housing and planning. However, in the 1960s a number of writers (Stokes, 1962; Turner, 1963; Abrams, 1964) began to challenge this approach and to assert the possibilities of self-improvement in many so-called squatter areas. Somewhat later, such views found wider acceptance by, for example, the World Bank. Instead of clearance, the in situ upgrading of slums was preferred and, instead of costly public housing schemes, an approach which started with the basic provision of sites and services, allowing the subsequent possibility of self-improvement, was promoted (World Bank, 1972). The decade of the 1980s, saw a major shift in favour of market-led growth (Bhagwati, 1993) with Mumbai representing an important symbol in this transition (King, 1991). In consequence, the role of the private sector in dealing with the city's housing problems has been given greater prominence. Finally, there has been a recent shift in favour of smaller-scale, "bottom-up", policies with responsibility being placed more explicitly upon local communities for the provision of shelter and services (Moser, 1989; Desai, 1995, 1996).

This paper will examine the city of Mumbai in the context of these changing ideas on housing the urban poor. Particular attention is, therefore, given to the development of low income dwellings in slum and hutment areas within the city. The origins and character of the city's poor housing stock are seen to be a reflection of poor or inadequate urban planning and

restricted land and rental housing markets as much as a function of rapid population growth. With population increase showing signs of slowing down, the prospects of new housing policies using private capital are discussed.

Site and setting

The present urban metropolis of Mumbai consists of three different entities. First, there is Mumbai City Island (see Fig. 1) a Manhattan-style promontory of 69 sq km and a population of 2.7 million at the last formal census in 1991. Originally composed of seven small separate islands, land reclamation and infill carried out mostly during the 18th and 19th centuries have combined these islands into a continuous peninsula (Deshpande and Arunachalam, 1981). Beyond the Mahim Creek to the north lies the suburban area of Salsette Island. Apart from a small northern portion, Salsette Island forms, together with Mumbai City Island, the municipal unit of Greater Mumbai. Greater Mumbai with an area of over 603 sq km had a population of 9.9 million in 1991. A much larger administrative unit, the Mumbai Metropolitan Region (BMR) extends on to the mainland beyond the Ulhas estuary and the Thane creek. Including Greater Mumbai and districts such as New Mumbai, the BMR occupies an extensive area of 4355 sq km and regis-



Figure 1 The location of Bombay including the Island City, the suburbs of Greater Bombay on Salsette Island and the Bombay Metropolitan Region with New Bombay

tered a population in 1991 of 14.5 million. For the purposes of this paper, population and housing issues are confined largely to Greater Mumbai. The old city will be specifically referred to as the "Island City", and "Greater Mumbai" will denote the Island City together with its suburbs on Salsette Island.

Population growth

General trends in population growth in the Island City and Greater Mumbai from 1901 to 1991 are shown in Fig. 2. From the turn of the century until 1950 most population growth was contained within the Island City where, even by the 1930s, the workers' tenements could be described as "...unspeakably congested and insanitary." (Spate, 1960; p 617). Since the 1950s, the majority of the increase has taken place in the suburbs and extended suburbs of Salsette Island. The suburbs, or more precisely, "inner" suburbs include land annexed for housing in 1950 and are co-extensive with wards H, K, L, and M in Fig. 3. The inner suburbs have shown some marked increases in population from 0.5 million in 1951 to 4.2 million in 1991. The extended suburbs or "outer" suburbs were annexed in 1956 and include wards N, P, R, S, and T in Fig. 3. They have witnessed increases from 150 000 to 2.6 million during the same period. As a consequence, the Island City grew only modestly between 1951 and 1981, from 2.3 million to 3.3 million. By 1991 the official population of the City actually declined for the first time by 100 000 from 3.3 million to 3.2 million (Fig. 2). The population trends shown in Fig. 2 are mirrored in Fig. 4, which shows total population (1991) and population percentage change (1981-91) by ward. Fig. 4 demonstrates that most of the population is found in the suburbs rather than the Island City. Apart from the very large population of the inner suburb ward K with 2.24 million, however, the two northern wards of the Island City (F, G) have population totals comparable or greater than the rest of the wards in the suburbs. Fig. 4 also shows the clear discrepancy in the rates of population increase between the Island City and

the suburban wards with rates in the latter far exceeding those in the former. Nevertheless, not all wards (B, C, D, E) had negative rates of population growth, with both the southern ward (A) and the two northern wards (F, G) having positive growth rates. However, the accuracy of the 1991 census has been questioned by Indian academics (Deshpande and Deshpande, 1991), and the projected population for 1991 by the Office of the Registrar General was actually 10.5 millions.

General housing conditions

Table 1 provides a summary profile of all housing types in Mumbai since 1961. The number of households increased from 803 000 in 1961 to 2.1 million in 1991, while over the same period, the number of rooms rose from 1.1 million to 2.9 million. Mumbai's general housing conditions appear to have declined between 1961 and 1971, with the average size of household rising from 5.3 to 5.4 persons, the numbers of persons per room from 3.7 to 4.0 and the percentage of households with only one room increasing from 72 to 77%. The city's housing conditions may have improved after 1971. Since then, the average size of household has declined from 5.4 (1971) to 5.1 (1981) to 4.8 (1991). Similarly, the number of persons per room has dropped over the three decades from 4.0 to 3.7 to 3.4. Because of the uncertainty surrounding the 1991 Census population for Mumbai, however, it is difficult to be confident about the trends in housing conditions shown in Table 1. It is possible that apparent modest housing gains are the result of a reduction in average family size rather than improvements or augmentation in housing stock. It is also likely that housing conditions could have deteriorated for a significant proportion of the population between 1981 and 1991, since 73% of households in 1991 compared with 69% in 1981 occupied one-room tenements only.

Living conditions in 1991 for the 647 000 people from scheduled castes and the 104 000 people from scheduled tribes in Greater Mumbai were of a lower

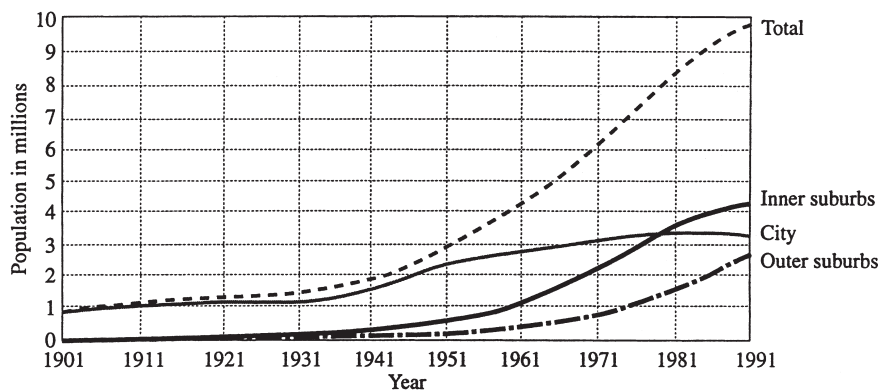


Figure 2 General growth trends in the population of Greater Bombay comprising the Island City, and in the inner and outer suburbs, 1901-1991. Source: BMRDA, 1995; p 74

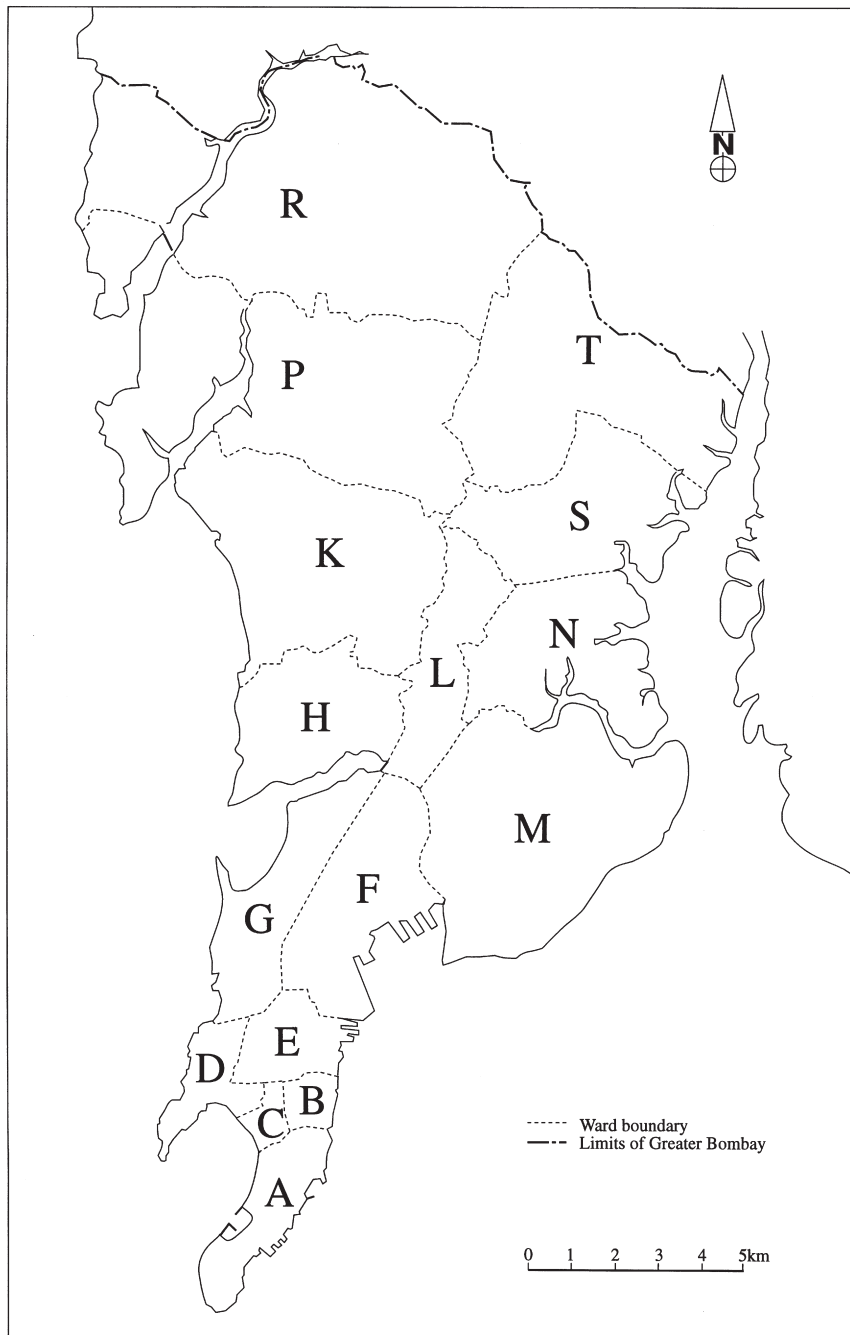


Figure 3 The wards of Greater Bombay

standard compared with the rest of the population. This is not surprising since these two groups form the lowest strata in Indian society and are extremely marginalised in economic and social terms. They are defined in the Indian constitution as weaker sections of society in need of positive development action. The scheduled castes in particular are linked with higher density living conditions as revealed by an average size of household at 6.2 persons and the number of persons per room at 5.1. As many as 85% of the

households of both groups had just one room to themselves.

Public services: water, electricity and sewerage

Faced with rapid increases in population and scarce public funding, it has generally proved difficult to maintain basic urban services such as supplies of water, electric power, sewerage and garbage clearance

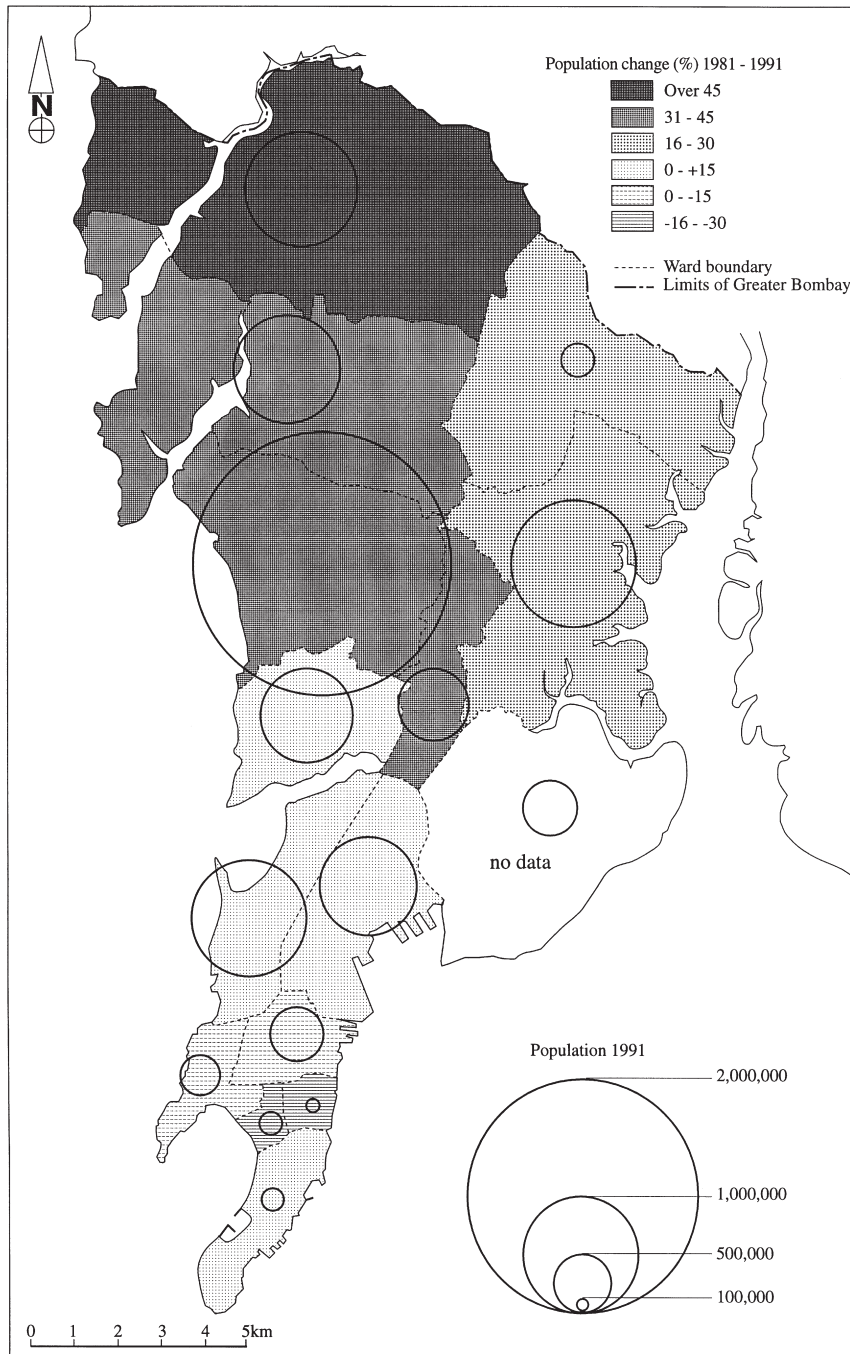


Figure 4 Ward population (1991) and ward population decadal growth rates (1981–91) in Greater Bombay. Source: Census of India, 1991, Greater Bombay

to the city's inhabitants (Fig. 8). Nevertheless, a larger share of households had access to electricity (90 compared with 78%) and toilets (78 compared with 71%) in 1991 than a decade earlier. Supplying clean drinking water to users remains a critical issue, however. This is a consequence not only of Mumbai's rapid population increase, but also of a spatial mismatch between centres of demand, eg in the CBD at the southern end of the Island City and centres of supply

in Salsette Island and increasingly on the mainland of Maharashtra itself. Despite this mismatch, there have been some general improvements in the supply of clean drinking water during the 1980s. In 1991, the Municipal Corporation of Greater Mumbai claimed for the first time to have provided all households in Mumbai with access to tap water (see Table 2). For almost one-third of the general population (ie most of the slum population), this supply still remains outside

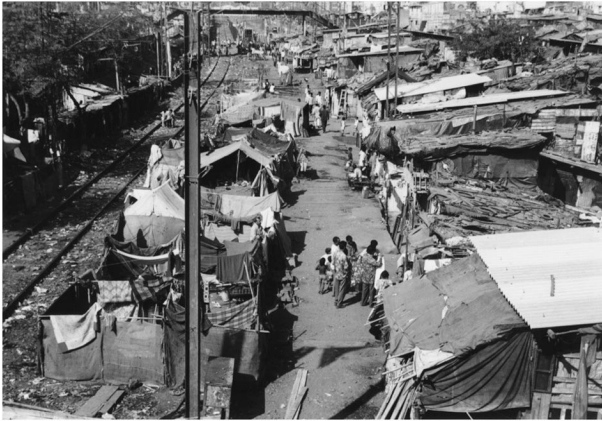


Figure 5 Hutments at Dadar station (ward G) Island City. The most recent migrants occupy sites closest to the railway line and live in roofless tented areas. The hutments closest to the railway line were cleared in May 1997 but the site has been gradually colonised again by new migrants. (Photo: G O'Hare)



Figure 6 Hutments beside the main water pipeline to downtown Bombay, Dadar, (ward G) Island City. (Photo: G O'Hare)



Figure 7 Single-room tenement chawls (ward G) Island City, built in the 1920–40s. (Photo: G O'Hare)

of premises, however, and for scheduled castes and tribes, outside supplies serve around one-half of both groups. It is also worth pointing out that many installed services become broken and are not repaired, while others have never been connected up. Often toilets built in slums are not connected to the city sewer systems, and many public drains operate independently of the city's central drainage system (Das and Gonsalves, 1987).

Unlike water and electric power supply, sewerage remains a major problem in Mumbai. Significant housing sectors in the city have been built on land reclaimed from the sea. This applies to land infilled between the seven islands in the 18th and 19th centuries by the British to provide housing for migrant textile workers, and land recently reclaimed for housing between the Island City and Salsette Island. Much of this land remains poorly drained and is subject to flooding during the summer monsoon (Fig. 9). The sewerage system dates back to 1880, and little real investment has been expended on improving treatment facilities and lift stations. There is little evidence

Table 1 Housing conditions in Mumbai, 1961–91

	1961	1971	1981	1991	1991	
					Schedule Caste	Schedule Tribe
Population (in millions)	4.2	5.9	8.2	9.9	0.64	0.1
Households (in 000s)	803	1073	1580	2088	105	21
Rooms (in 000s)	1092	1458	2235	2921	128	27
Average size of household	5.3	5.4	5.1	4.8	6.2	4.9
Number of persons/room	3.7	4.0	3.7	3.4	5.1	3.9
% Households with 1 room	72.3	77.4	68.9	72.9	85.1	84.1

Data on households and rooms are shown for both the total population and separately for scheduled and tribal castes. Source: Afzulpurkar, 1995 (p 109).

Table 2 Availability of electric power, toilets and tap water to Mumbai households, 1961–91

	% Population		1991	
	1981	1991	Schedule Caste	Schedule Tribe
Electricity	77.5	89.6	83.3	73.9
Toilet	71.4	78.2	62.4	58.4
Inside tap water	58.3	67.7	52.4	48.5
Outside tap water	33.9	32.3	47.6	51.5

Source: Census of India, 1961, 1971, 1981 and 1991. Housing Tables, Greater Mumbai.



Figure 8 Slum pocket occupying coastal site in Colaba (Ward A) Island City showing rubbish dump along narrow shoreline. (Photo: G O'Hare)

of improvement in the system since 1975, when only about one-third of Greater Mumbai was sewered. Most of the Island City is sewered (MCGB, 1975), but only 28% of the suburbs and 15% of the outer (extended) suburbs. As a result many coastal areas around Mumbai, and Mahim Bay are polluted (Richardson, 1980).

The distribution of slums

It is important to recognize that Mumbai's slum pockets are highly differentiated by type, size and location, and occupy land held under a variety of ownership structures, including central government, state, municipal and private land. Estimates of structures on private land, for instance, range from 43% (Desai, 1996) to 49% (Afzulpurkar, 1995). While "zopadpattis" or hutments can spring up virtually anywhere, some slum pockets are destroyed while others retain a degree of permanency. Those slums located on municipal land (but not on other owned land) can be accorded "official slum" status by the Bombay Metropolitan Authority (BMA) under the Slum's Act and Central Urban Land (Ceiling and Regulation) Act of 1976. This designation means that the area is officially recognised as unfit for human habitation. When a municipal slum is officially recognised, the

BMA is obliged to act quickly either to provide basic amenities such as water, or to clear out the area, offering rehabilitation to those already there (Glover, 1987; pp 4–7).

Although it is difficult to be precise about trends in housing conditions over the last three or four decades, it is clear from Table 2 that housing provision in Mumbai as a whole and particularly for the poorer scheduled and tribal castes is seriously deficient. A recent study (Afzulpurkar, 1995) has shown the number of families crowded in slums and hutments of insubstantial structure with unhygienic conditions in the various wards of Greater Mumbai. Slum housing was calculated to occupy just over 902 000 individual structures located in over 2335 separate slum and hutment pockets across the city in 1985. Allowing for a 10% increase since then, by the mid 1990s the slum population of Greater Mumbai has been estimated to live in over 1 million hut structures and in over 2500 slum pockets (ibid). With an average family (household) size of just under five in that same year (Table 1), the number of people living in hutments and slums in Greater Mumbai in 1995 would be around 5 million. These government estimates of the size of the city's slum population are probably on the low side, but they are consistent with estimates by others (Swaminathan, 1995), who judge that one-half of the city's population live in slums, ie 5 million out of a total population of 9–10 million.

Of the one million estimated slum structures, 17% are crowded into the Island City while a greater proportion (46%) are found in the much more extensive inner suburbs constituted by wards H, K, L, and M in Fig. 3 and outer suburbs (37%) in wards N, P, R, S and T (Afzulpurkar, 1995). At the individual and community level, slum dwellers seek accommodation within easy reach of jobs or where income can be earned, such as in areas close to markets or docklands. These aspects are often more important than the size and quality of accommodation and explains why there are between 200 000 and 500 000 people in Mumbai whose "accommodation" is the pavement or some open space or building (Mahtani, 1981). In these locations, they will build makeshift huts, put up with the fear of eviction, poor services, and lack of water to be near important centres of economic and social

activity. Although some of these individuals could afford cheap accommodation in the outer parts of the city, they could not afford the journey to and from the centre of town therefore, despite the appalling conditions such people endure, "...their pavement dwellings represent the most logical response to their housing and income needs." (Hardoy and Satterthwaite, 1989; p 67).

The origins of Mumbai's housing problems

The origins of Mumbai's housing problems are complex (Deshpande and Deshpande, 1991), a full discussion of which are beyond the scope of this paper. It can be argued, however, that Mumbai's housing problems stretch right back to its origins during colonial times (see for instance Burnett-Hurst, 1925). One important factor is the high rate of population in-migration to the city. Many of the new migrants, unable to find work in the capital intensive formal sector, helped to swell the ranks of the low-wage informal sector. At the same time, many poor people were able to work and live in the city because of cheap subsidised transport. Other significant factors have been a historic lack of public investment in housing (Annual Report of the Municipal Commissionaire of Bombay 1886-87, cited in Upadhyay, 1990), the adoption of misguided and often western-based urban planning policies and restrictions in the land and rental housing markets. Because of "land shortage", a function in this city of land market restrictions, unequal urban land ownership patterns and a shortage of housing, both land and house prices in Mumbai have escalated enormously. Deshpande (1996) also infers rapidly rising real estate prices in the city (from US\$200 per sq ft in 1991 to US\$1200 per sq ft in 1995) to rapid recent growth in the financial sector. Consequently, more and more of the poor are forced to live in appalling conditions. Many slum dwellers have not willingly chosen their shanty structures and unhygienic environment, but have been unable to gain access to the formal housing sector since it is much beyond their income levels.

Population

In keeping with consensus views of the time, the Regional Plan for Mumbai Metropolitan Region (1973), saw the rapidly increasing population of Greater Mumbai as the root cause of the city's problems of poor housing, insanitary conditions, deficient water supply and environmental deterioration. In order to preserve Mumbai's long-term future as an "engine of economic growth" the Regional Plan (1973) envisaged the curtailment of the city's explosive population growth and its spatially concentrated economic development. It advocated a classical, decentralised pattern of development at the city-region scale by promoting new growth centres in outlying areas (eg New Mumbai) and stemming the

growth of industries and offices in Mumbai. These ideas were in sympathy with the pessimistic views about large cities in the 1950s and 1960s, which prognosticated that public services in large, rapidly expanding cities would eventually collapse, resulting in civil disorder and the destruction of urban quality of life.

Mumbai's experience of the last two decades questions the validity of this strategy. The resources required to establish infrastructure for poly-centric nodal development in the Mumbai Metropolitan Region (Fig. 1) have not been forthcoming. Although urban growth has taken place in the BMR (Fig. 2) it has not been confined to centres such as New Mumbai and much continuing expansion has taken place within Greater Mumbai. Rapid population increase has often been signalled by government as the main factor in Mumbai's slum housing conditions (Harris, 1978), but rates of in-migration are no greater than many other cities in the developing world with much better housing stock (Gilbert and Gugler, 1992). Current statistics suggest that there has been a decline in the level of migration to the city between 1981 and 1991 compared with previous decades (Deshpande and Deshpande, 1991), although precise rates are uncertain.

Land

It has been claimed that it is not simply population *per se*, but population pressure on a limited land area that lies at the centre of the city's housing conditions. Most of Mumbai's planning documents support the assumption that there is insufficient land in the city on which to build. Reliable figures on the amount of vacant land in the city are difficult to come by, but estimates vary from 3000 to 20 000 hectares (Das and Gonsalves, 1987; Heredia, 1989) with one family alone owning 2000 hectares of vacant land (McAuslan, 1984). Most of this land is in the suburbs and extended suburbs. Since 1894, the government has had the authority to acquire land at "market" prices for public purposes under the Land Acquisition Act. However, the formal planning mechanism serves to restrict the supply of land and thereby inflate its "market" value and consequently encourages land speculation. To counter the latter, the Urban Land Ceiling and Regulation Act (1976) was introduced to promote the development of unused speculative land. However, considerable evasion has taken place and, according to Gonsalves and Panjwani (1982), if the Act had been properly implemented, some 8000 hectares of land could have been declared surplus and acquired for low income groups. However, the government has appropriated a mere 384 hectares (Gonsalves, 1981). There is certainly an unequal distribution of urban land among various sections of society. While the rich have 90% of the land and live in comfort with many open areas (Fig. 10), the poor live crushed together on 10% of the land (Das and Gonsalves, 1987).



Figure 9 Large hutment pocket adjacent to flood-prone tidal flats near Mahim Creek (ward H) Bombay suburbs. (Photo: G O'Hare)

Planning and investment

There is a very clear lack of suitable housing for the poor who make up the bulk of Mumbai's population. As many as 63% of Mumbai households earn less than Rs1000 (about £17) per month (MHADA, 1990). The annual need for the BMR for 1981–91 is estimated at between 60 000 (Heredia, 1989) and 65 000 (Pugh, 1990) housing units. Government agencies construct only about 4000 units annually, many of which are directed at low-income families. Another 12 000 units or so are built annually by the non-government sector (private developers and cooperative societies) but these are well out of the financial reach of the poor, especially the economically weaker section (EWS) with monthly family incomes less than Rs700 per month, and the low income group (LIG) with household monthly earnings of between Rs701 and 1500. Most new private housing is directed at the middle income groups (MIG) with monthly earnings of Rs1501–2500, and the higher income group (HIG) with monthly incomes exceeding Rs2500. Thus, to a previous backlog of 800 000 units (Heredia, 1989) a shortage of about 44 000 (60 000–16 000) housing units are added every year. Put another way, the implication is that over 40 000 households create new squatter settlements each year.

Housing policies

Since the late 19th century, the municipal authorities have engaged in various attempts to rid Mumbai of its slum and hutment areas, and a number of discrete housing strategies and policies have evolved over the years. These include strategies for both the very poor and middle income groups:

Slum clearance and redevelopment (1896–late 1970s)

This has been the traditional method of eradicating squatter settlements and poor housing stock in the

city, using a model of physical planning based upon urban technology and knowledge derived from industrial Britain but expressive really of colonial dominance (Dossal, 1989). As early as 1896, the Mumbai Improvement Trust Act gave powers for the municipal authorities to clear slums from sites within the city (Pugh, 1989). Slum clearance which lasted well into the 20th century has had little success, however. This approach, relying on the transfer of western notions of housing development is inappropriate to the housing needs of Mumbai. Slum eradication is expensive, reduces housing stock and is administratively unwieldy. Many of the new apartment blocks built on the cleared sites for the slum dwellers have proved too expensive for the former residents of those areas. Such permanent, often high quality, construction is only affordable by the poorest sections of society if supported by subsidies reaching as high as 80% of costs (Pugh, 1989). Many slum dwellers who are unable to buy or rent these new apartments have had no option but to sell their tenements to higher income groups and to move back to the slum areas, thus frustrating the objectives of the scheme. Furthermore, many new tenements were built on cleared sites by public corporations rather than private agencies, resulting in non-occupiable constructions for the poor, eg new police chawls. Slum eradication measures have also met with increasing political opposition and moral outrage. Although slum eradication declined in the late 1970s because of its negative impacts and the growth of more favoured policies, the practice, albeit on a smaller scale, continued to be witnessed for some time. Many slum pockets continued to be cleared around the city whether the land is to be used for commercial purposes or not. Recent examples include clearances of large unauthorised slums at Babrekar Nagar in Malvani (Fig. 11), Bhagat Singh Nagar in Goregaon and Kane Nagar in Antop Hill (Maharashtra Times, 1997). Although the supreme court has forbidden slum demolitions during monsoons, these demolitions took place in mid-June 1997 just before the first monsoon rains arrived in the city.

Slum improvement and upgrading (1976–present)

More optimistic views concerning the problems and role of the large city became established from the 1970s onwards (Gilbert and Gugler, 1992). Rather than being seen as over-grown, unmanageable and socio-economically malfunctioning, large cities were now regarded as playing an important role as generators of national wealth. Urban planning from the 1970s focused on facilitating rather than restricting city growth through the provision of infrastructure, and the removal of economic, social, and environmental obstacles in the path of their progress and development. In keeping with these views, and as housing needs increasingly outran available resources in the 1950s and 1960s, housing policies took new directions. In the late 1960s, the benefits of more appropriate, less “western” and less capital-intensive



Figure 10 Apartments for the rich in Malabar (ward D), Island City. (Photo: G O'Hare)

approaches to housing the poor in Mumbai became apparent. Housing policies which emphasised the positive features of upgrading at relatively low cost existing squatter settlements over time were given authority by the works of Abrams (1964); Frankenhoff (1966); Turner (1967).

In Mumbai, new alternative systems of housing the poor have taken two principal forms (Heredia, 1989). First, in line with the change in thinking by organisations such as the World Bank, slum eradication and relocation was abandoned in favour of *environmental improvement of settlements in situ*. The World Bank's approach was based upon following the implications of three relatively simple concepts — “affordability”, “cost recovery” and “replicability”. “Affordability” meant adopting a realistic approach to housing supply in terms of what the urban poor could really afford, recognising that, initially at least, the standards of such housing would fall way below conventional norms. “Cost-recovery” was related to the concept of affordability in that it implied a “user pays” policy rather than the adoption of subsidies. The standards provided would then be based on what could be afforded by consumers, rather than on design ideals. “Replicability” completes the apparent process of logic in this approach in that, if costs are recovered because they are affordable to the groups affected, then the successful repetition of such projects

becomes likely, leading to an overall improvement in housing provision. In the 1980s, a number of Indian cities became the “laboratories” in which this new approach of the World Bank was tested (Pugh, 1990). In Mumbai two main strategies were adopted, first the Slum Improvement Programme (SIP) from 1976 plus the Slum Upgradation Programme (SUP) which began in 1983/84. The second approach, described in the next section, comprises *sites and services provision*.

The SIP seeks to augment the provision of piped water, drainage and latrines, pavements, lighting and electricity for slum pockets established before 1985. Although 3 million slum dwellers have theoretically been embraced by the scheme up to 1989 and more than Rs500 million spent, in relative terms, funds for the programme have been very limited. Improvements have been less than expected, for instance one new toilet seat has been made to serve 100 people rather than the targeted 20–50 (MHADA, 1990), and consistent maintenance of such new installations has proved to be difficult.

In Mumbai, the Slum Upgradation Programme (SUP), is largely under the control of the World Bank. This scheme, which depends on community consent and participation, encompasses the lease of existing slum land at favourable rates to community groups of slum dwellers, and loans for environmental and house improvement (Naik, 1996). About 100 000 households were supposed to benefit within 3 years (Pugh, 1990). A problem of this approach, however, has been the issue of procuring sufficient land to implement the scheme successfully and the complicated procedures which have to be undertaken with different categories of land ownership (Desai, 1996). The acquisition of private land on which around 43% of the city's slums are located has proved legally difficult and expensive. The successful acquisition of private land for this purpose has usually depended upon mobilising political connections (Desai, 1996), and many private owners are likely to resist relinquishing ownership. Public land is owned by the state government, the national government and municipal government and different and time-consuming processes have to be undertaken with each of these categories of owner. For example, with municipally owned land, applications have to be made through the Slum Improvement Department and then each of the public utilities concerned (water supply, roads, street lighting etc.) With state-owned land the process is much more complicated and involves mobilising the state authorities before the municipal authorities concerned with the provision or extension of services are approached. Such bureaucratic channels have meant that land has been provided painfully slowly and in small amounts. The authorities concerned have also proved to be relatively inflexible in their approach to solving some of these problems associated with land acquisition. For example, suggestions that land for government-sponsored housing for the poor could be obtained as part of “package

deals” with developers in exchange for granting permission for them to build at greater densities or heights (eg in office blocks), have largely been ignored (D’Souza, 1987). By 1989, the scheme for slum upgrading had fallen well short of expectation and only 9% of recipients belonged to low income groups including EWS and LIG (Deshpande and Deshpande, 1991) (Fig. 7).

Sites and services provision (1983–)

A second major approach has focused on systems using less formal building regulations and materials. In 1983–84, a sites and services provision scheme involving government subsidies and favourable loan agreements was introduced under the auspices of the World Bank. Again, progress has been unsatisfactory both in quantitative and qualitative terms. Data for the state as a whole suggests that possibly only about one-half of the 40 000 sites earmarked for Mumbai have actually been prepared with basic services and access routes (MHADA, 1990). Undoubtedly, one of the main reasons for this relates to the difficulties of acquiring land in appropriate parcels and locations. Perhaps of greater concern is evidence suggesting that although EWS and LIG households were intended to form 70–80% of the allottees, the majority of sites were actually occupied by middle and higher income groups (Banerjee-Guha, 1990; p 3). Many sites and services’ allotments proved more expensive than originally planned, with the result that many were sold by the EWS and LIG back to higher income groups. The purchase of sites for speculative reasons has also occurred, with the land often being allowed to lie vacant while it appreciates in value. Sites and services programmes in other Indian cities, for example Ahmedabad, experienced similar problems (Mehta and Mehta, 1989) and it appears that the World Bank’s trilogy of affordability — cost recovery —

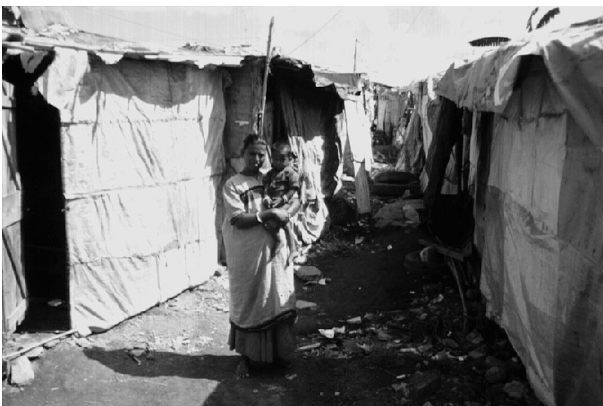


Figure 11 New tented slum pocket in Babrekar Nagar in Malvani (ward P) Mumbai suburbs. Part of this slum, a favourite location for recent arrivals in the city, was demolished by the Bombay Metropolitan Council (BMC) and city collector during the early monsoon rains in mid-June 1997, and brings misery to its residents. (Photo: G O’Hare)

replicability has all but collapsed in the face of local complexities and obstacles.

Prime Minister grant programme (1985–93)

This state-run programme was conceived in 1985 when Rs1000 million was given by the then Prime Minister, Rajiv Gandhi, to remove some of the city’s urban squalor. Rs600 million was used to upgrade the infrastructure and essential services of just one shanty, Dharavi, which has the reputation of being the largest slum in Asia, occupying 250 acres and containing half a million people. In addition to providing roads and improving drainage and water supply, about 5000 partially subsidised housing units (Fig. 12) were built for the rehabilitation of the residents of Dharavi. As with previous schemes, many of the new apartment units were too expensive for the slum dwellers to run and were quickly sold at a profit to better-off groups. This programme was wound up in 1993 when funds were used up.

Repairs and rehabilitation of dilapidated buildings (1971–)

Another housing policy, although not directly targeted at the slum population, has entailed repairing and reconstructing existing housing. Over 1.5 million people live in the Island City in cheaply constructed single room tenements known as “chawls” (Fig. 7). The chawls in the Island City (chawls are also located in the suburbs) are mostly owned by private individuals and organisations. They comprise 60% of the housing stock of the Island City, and date mostly to the 1920–40 period. They were originally constructed to house industrial textile workers and their families, and have deteriorated badly since 1940. The main reason for their deterioration has been a government-

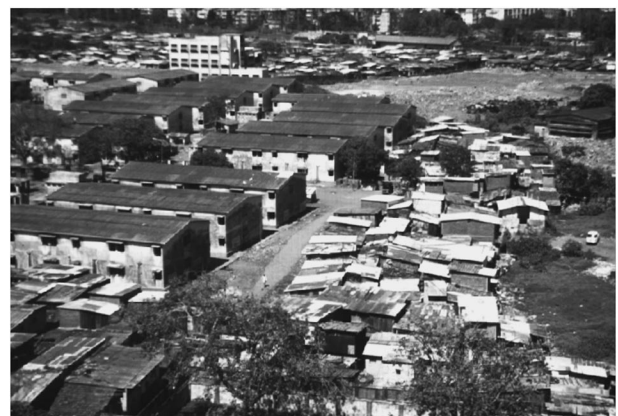


Figure 12 Part of Dharavi shanty (ward G) Island City, showing slum hutments alongside (left of centre in photograph) concrete transit housing units. The transit housing structures which are now derelict, were built as temporary housing for slum dwellers moving into new semi-subsidised apartment blocks, one of which can be seen in the centre background. (Photo: G O’Hare)

imposed rent freeze under the 1947 Mumbai Rents Control Act (which continues to this day). With insufficient rent, private landlords ceased to keep the chawls in good repair. In 1984, 22% of the buildings in the Island City had a future life of 5 years, and 42% of between 5 and 15 years (Deshpande and Deshpande, 1991). Chawls are nevertheless highly sought-after accommodation, and currently a single room can fetch up to approximately Rs400 000–600 000 in the textile areas of the city (wards G. and F.). The low profit rent freeze of the 1940s onwards, also virtually stopped the building of privately funded rental apartments and thus had a disastrous effect on the future housing stock of the city (personal communication, Dr Sudha Deshpande, 1997).

The repairs and rehabilitation scheme for the chawls is a relatively straightforward one. Between 1971 and 1989, the Mumbai Housing and Area Development Board (BHADB) under the direction of MHADA claims to have spent more than Rs1500 million on structural repairs, repairing dilapidated buildings from a total of 17 000 enlisted. A rather critical view of this scheme, however, is presented by Pugh (1990), who comments that the programme was running with a budget of only Rs236 million. Up to 1986, some 9861 buildings had been repaired, but the programme has been limited by its costs and by landlord litigation against renewal orders.

Privatised slum redevelopment (1991–)

The failure of public investment in augmenting and maintaining the housing stock of the city, and the emergence of India's new economic liberalisation policies which favour market-led growth, have encouraged new housing policies funded by private capital. The Mumbai authorities are attempting to reshape the city as a slum-free environment. *The Slum Redevelopment and Rehabilitation (SRD and R) Programme* (Afzulpurkar, 1995) announced under the Development Control Regulation of 1991 plans to rehouse 4 million of the city's slum dwellers (including scheduled and tribal castes) in new high-rise apartment blocks. It is envisaged that private developers will be attracted to the scheme because city land will be given to them by the state government free of charge. By not paying the city's grossly inflated land prices, private developers will be able to build both houses free of charge for the slum dwellers as well as houses sold at a profit to higher income groups. The theoretical and potential benefits of the scheme are many, allowing (i) the implementation of Mumbai's existing but blocked Development Plan (Master Plan, 1966) with the building of amenities and public services on newly vacated slum land; (ii) the removal of unsightly slums from railway corridors, footpaths and sensitive areas (coastal zones, lake side, naval, airport and atomic energy sites); (iii) the elevation of the social status of the slum dwellers; (iv) the collection of city taxes from the newly housed slum dwellers; and (v) the creation of affordable

housing stock (up to 0.5 million units) for the non-slum population.

Nevertheless, many serious problems will have to be overcome for the Scheme to be successful. The SRD and R Programme (Afzulpurkar, 1995) appears to have seriously underestimated the magnitude of the slum and squatter population since the Scheme has been gauged on the basis of data from 1976, 1980 and 1985. The city's natural population growth and migration to the city has been excluded. Pugh (1989), for instance, contends that between 40 000 and 50 000 households could be added to squatter settlements each year, but these figures have not been taken into account. Eligibility for the scheme is based on electoral registration before 1 January 1995, meaning that many slum dwellers occupying land illegally or recent arrivals, will be exempt. Also excluded are the street sleepers and the homeless, including tens of thousands of destitutes, street children and construction workers (YUVA, 1995). In view of the dimensions of the SRD and R Programme and the speed with which it was initially prepared (originally it was to be completed within 5 years of the starting date), many initial targets have already been overtaken and modified. For instance, an initial ceiling of 25% profit to the builder/developer was removed to inject greater interest in the Scheme (Vijapurkar, 1997). Several recent publications on the SRD and R Programme such as those by the Peoples' Participation Programme (PPP), a privately funded non-governmental organisation (NGO) in support of the scheme, report on plans to give free houses to 1.2 million slum families (ie 5.5–6 million people) within a period of 10–15 years (Naik, 1996).

There are a host of other limitations related to the SRD and R Programme. First, under the terms of the Scheme, it is required that for each slum pocket, at least 70% of the slum dwellers have to give their consent to a project (Jhaveri, 1995). Second, many bureaucratic procedures have to be managed before a project can be approved. Third, the livelihoods of up to one-fifth of the slum population will be completely disrupted since it is envisaged that this proportion (Afzulpurkar, 1995; Naik, 1996) will be rehoused in new sites at a distance from existing sources of employment and social interaction. Fourth, according to Ranjit Naik (cited in Jhaveri, 1995) the lack of makeshift transit accommodation for slum families during the construction period is likely to be one of the biggest impediments in the quick implementation of projects. Fifth, the transfer of public and private land to slum communities will be hampered by complex land-ownership patterns. Schemes can only be implemented when sufficiently large pieces of land can be sold off for the purposes of slum and commercial housing. This is seldom the case since as in many areas a large number of different owners own relatively small complexly distributed sections of land. Sixth, participation rates will also be hampered because slum dwellers will incur quite high expenses

in transferring ownership of their hut to the scheme, forming societies, opening bank accounts, etc. Seventh, as the SRD and R Programme depends on increasing the floor space index, ie building high-rise apartment blocks in the slum areas, population densities may increase in some areas, placing a greater burden on existing infrastructural services, eg schools, roads, water supply, sewerage. Eighth, while the Scheme provides up to 225 sq ft of new floor space for each vacated slum housing unit, no differentiation is made for slum housing units occupying two storeys (allowed since 1985) and thus having more than 225 sq ft of floor space. Finally, as with many previous housing schemes, there is a real danger that faced ultimately with high rents and maintenance costs, the slum dwellers will (despite legislation which is supposed to prevent this) sell their apartments to the better off and move back to the slums.

To date builders have been reluctant to participate in the scheme in the absence of government money, high initial development costs in clearing land and constructing transit tenements, and low potential profits in view of recent declines in real estate prices in the city. The big developers have shown no interest (Express News Service, 1997; Varghese, 1997). In the 5 years since its inception only about 50 projects out of 250 have been started (Singh, 1997). Even if all 250 proposals are implemented this will cover only 50 000 families, representing less than 5% of the target group. Up to the present time only 1500 families have been given free houses. At this rate it will take at least another 100 years to build enough tenements to house Bombay's slum dwellers.

Community action (1980s–present)

Although difficult to describe as a deliberate policy development in the same sense as the initiatives described above, there is no doubt that community action with regard to slum and squatter improvement is firmly on the agenda (Moser, 1989; Desai, 1995, 1996). Rather than a policy which has been superimposed from above, such developments have often emerged from the experiences of local communities in trying to upgrade their areas. However, the chances of formal recognition are increasingly high, especially when such community groups are linked to NGOs which, it is claimed, in Mumbai "...are at the cutting edge of what is being attempted in India and will have wider implications for NGOs in all developing countries." (Desai, 1996; p 218). Although community-based initiatives for slum improvement have the advantage of being "bottom up" rather than "top down", there remain a number of problems with this approach. It has been demonstrated, for example, that community leaders are often better educated, better off and more highly motivated than the majority of the community they are supposed to represent. Indeed, they may not always be the "representative" individuals they appear to be, and such "community leaders" may have their own agenda which is not that

of the community itself (Desai, 1996). Furthermore, an apparently "community-led" approach can absolve the municipal and other public authorities of some of their responsibilities and may be attractive to such bodies simply because it appears to offer cheaper alternatives to more formal "top down" intervention.

Summary and conclusions

This paper has described the slum and squatter settlements in Mumbai and the changing policy response to the problems they present. The city of Mumbai has experienced a number of housing and planning initiatives and therefore provides a useful empirical illustration of the outcomes of such initiatives. From the end of the 19th century and up to the 1970s, housing policy for the urban poor in many developing countries often imitated that in developed countries. Considerable faith was placed in borrowing models of planning from the latter and especially the preparation of a master plan. All too often, however, such plans were divorced from the reality on the ground and the preparation of the document almost became an end in itself (Devas, 1993). Policy with regard to housing for the urban poor tended to follow the "western" models of slum clearance and the building of (usually a woefully inadequate number of) public-sector replacement apartment blocks. The former usually served to do no more than shift the slum problem around the city, and the latter almost invariably turned out to be housing that could not be afforded by the urban poor (Pugh, 1989). The failure of such conventional policies led to a view which, rather than blaming weak or inadequate urban planning, sought to explain continuing problems in terms of too-rapid urban population growth, fuelled by excessive in-migration of ill-educated, former rural dwellers. However, in the 1960s a number of writers began to challenge this orthodoxy. Working from different perspectives, Stokes (1962); Turner (1963); Abrams (1964) all drew attention to the possibilities of self-improvement in many so-called squatter areas. Subsequent research helped to expose much of the myth and prejudice upon which official views of uncontrolled settlements were based and a new conventional wisdom began to emerge, taking a much more positive attitude towards the possibilities for advancement in the housing of the urban poor. Subsequently, it has been claimed (Pugh, 1989, 1990), this conventional wisdom was incorporated into official policy, most notably as exercised by the World Bank and its encouragement of the basic provision of sites and services and the adoption of the "affordability", "cost recovery" and "replicability" philosophy. However, although policies of providing basic sites and services and in situ upgrading of slums represent a considerable advance, it does not necessarily follow that they are without problems of their own. What may appear, in largely theoretical terms, to be a sensible and constructive solution to the prob-

lems of housing the urban poor could be overwhelmed by the realities of a local situation.

In the 1980s, the Indian economy undertook a significant shift in emphasis away from its previous concentration on economic planning and public sector intervention (Bhagwati, 1993) and in favour of market-led growth. In line with this complete change in economic philosophy, housing policies have been introduced which give a greater role to the private sector in dealing with the city's housing problems. More recently, emphasis has also shifted towards community-based, "bottom-up", policies. In many ways this is a natural extension of the self-help philosophy, but it is an approach which places responsibility more explicitly upon local communities. Community-based projects for the provision of shelter and services have, therefore, become increasingly favoured (Moser, 1989; Desai, 1996). While any policy which gives local people access to, and control over, resources is surely to be welcomed, community-based projects are not necessarily a panacea for the many problems which are involved in housing the urban poor in a city such as Mumbai.

In the light of the foregoing discussion, any conclusions must be tentative for the basic, accurate data by which even the dimensions of the housing problem in Mumbai can be measured are simply lacking. However, it is difficult to be optimistic about the housing prospects of the city's urban poor. After nearly a century of policy and planning intervention, the simple fact that, as we approach the millenium, the dominant paradigms stress the role of the "market" and "self-help" suggests that the future for Mumbai's "unintended city" is likely to be no less bleak than its past.

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