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STAFF APPRAISAL REPORT

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

January 4, 1985

Urban and Water Supply Division
South Asia Projects Department

CURRENCY EQUIVALENTS

Currency Unit	=	Rupees (Rs)
Rs 1	=	US$ 0.09
US$1	=	Rs 11.00
Rs 1 lakh	=	US$ 9,091
Rs 1 crore	=	US$ 909,091

MEASURES AND EQUIVALENTS

1 meter (m)	=	39.37 inches (in) or 3.28 feet
1 square meter (m^2)	=	10.76 square feet (sq ft)
1 cubic meter (m^3)	=	35.31 cubic feet (cu ft)
1 kilometer (km)	=	0.62 mile (mi)
1 square kilometer (km^2)	=	0.386 sq miles
1 hectare (ha)	=	2.47 acres (ac) or 10,000 sq meters
1 liter (l)	=	1.057 quarts liquid or 0.26 gallons (gal)
1 liter per capita per day (lpcd)	=	0.26 US gallons per capita per day (gpcd)

PRINCIPAL ABBREVIATIONS AND ACRONYMS

ALIS	-	Affordable Low Income Shelter Program
BEST	-	Bombay Electricity Supply and Transport Undertaking
BHADB	-	Bombay Housing and Area Development Board
BMC	-	Bombay Municipal Corporation
BMR	-	Bombay Metropolitan Region
BMRDA	-	Bombay Metropolitan Region Development Authority
BUDP	-	Bombay Urban Development Project
CIDCO	-	City and Industrial Development Corporation
DCBR	-	Development Control and Building Regulations
EWS	-	Economically Weaker Section
GOI	-	Government of India
GOM	-	Government of Maharashtra
HDFC	-	Housing Development Finance Corporation
HIG	-	Higher Income Group
HUDCO	-	Housing and Urban Development Corporation
KMC	-	Kalyan Municipal Corporation
LIG	-	Low Income Group
LISP	-	Land Infrastructure Servicing Program
LOGFAS	-	Local Government Finance Administration and Services
MCHS	-	Maharashtra Cooperative Housing Society
MHADA	-	Maharashtra Housing and Area Development Authority
MIDC	-	Maharashtra Industrial Development Corporation
MIG	-	Middle Income Group
MWSSB	-	Maharashtra Water Supply and Sewerage Board
NBMC	-	New Bombay Municipal Corporation
SUP	-	Slum Upgrading Program
TATE	-	Technical Assistance Training and Equipment
TMC	-	Thana Municipal Corporation
ULCA	-	Urban Land Ceiling Act
WSSD	-	Water Supply and Sewerage Department (of BMC)

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STAFF APPRAISAL REPORT

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This report is based on the findings of an appraisal mission which visited Bombay in July 1983 and the contributions of BMRDA's Planning Division. The mission comprised Messrs. Evan Rotner (Mission Leader), Douglas Graham (IDA), A. Bertaud, B. Ellis, D. Ayres and R. Venkataraman (Consultants), assisted by D. Jones (WUDDR), Ms. Sylvia Gottwald (Consultant), at the pre-appraisal, and Mr. D. Cook (WUDDR). Mr. J. Pickard (Consultant) also assisted in preparing the Appraisal Report.

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

I. BACKGROUND

A. India Urbanization Trends

1.01 India, although primarily an agricultural country with about 76% of its 1981 population of 684 million people living in rural areas, is becoming increasingly urbanized. Its urban population of 156 million has been growing (1971-81) at a much higher annual rate (3.9%) than the rural population (1.75%). About 6.1 million people per year are now being added to urban areas. Over the next two decades, nearly half (45%) of India's population growth will be located in urban areas. These large increases in population are straining city administrations' capacities to deliver, maintain, and finance essential urban services and to supply serviced, urban land. Relative to other sectors, small proportions of government resources are invested in housing, urban development, and water and sewerage, so there is an urgent need for them to be used efficiently and for increased investment supported by improved local resource mobilization.

1.02 Despite cities being the focal point for wealth and income growth, about 41% of urban households, or 64 million people, have incomes below the absolute urban poverty income level, estimated by IDA to be about Rs 520 monthly per household in 1980. In the poorest Indian states--Uttar Pradesh, Orissa, and Bihar--and in some major cities, as many as 60% of the population are estimated to have incomes below the poverty line.

1.03 While primary responsibility for the formulation and implementation of urban development programs in India rests with state governments and local bodies, overall development policies and strategies are influenced by objectives laid down in the national five-year plans. The Sixth National Five-Year Plan (1980-85) stresses the need for providing affordable shelter, safe water supply and adequate sanitation to the urban poor, and for modifying existing by-laws, land use controls and minimum plot size requirements to achieve this end. It also favors slum upgrading rather than demolition and relocation.

1.04 In the early 1970's, GOI began direct funding of urban projects in the larger metropolitan cities, beginning with Calcutta, followed by Bombay and Madras. Also, a centrally funded Minimum Needs Program was introduced under the Fifth Five-Year Plan which resulted in environmental improvements in many urban slums. But costs were not recovered, tenure was not usually provided, and local government management and financial capacity to maintain and service improved neighborhoods was not addressed. Under the Sixth Five-Year Plan, a centrally funded Program for Integrated Development of

Small and Medium Towns is financing land development, market centers and traffic and transportation schemes in towns with less than 100,000 inhabitants.

1.05 Urban policies and programs, including centrally funded urban programs and a number of technical assistance and training programs, are directed at the national level by the Ministry of Works and Housing (MOWH) and its agencies. The agencies of MOWH include the Town and Country Planning Organization (TCPO), the National Building Organization (NBO); and the Public Health Engineering and Environmental Organization (PHEEO). In addition, the MOWH is the principal sponsor of the National Institute of Urban Affairs (NIUA), an autonomous organization, and it has supervisory responsibility over the Housing and Urban Development Corporation, Ltd. (HUDCO), a semi-autonomous Government of India Corporation which provides much of the capital for State housing and urban development authorities.

B. Maharashtra and Bombay Metropolitan Region (BMR) Urbanization Trends

Maharashtra

1.06 In population, size, and social and economic development, Maharashtra State in Western India ranks at or near the top of all the States. Only Madhya Pradesh and Rajasthan exceed Maharashtra in area. Maharashtra has the largest urban population (23 million in 1981) followed by Tamil Nadu and Uttar Pradesh and its total population (63 million in 1981) grew at 2.4%/year from 1971-81: a higher rate than India as a whole. About 70% of Maharashtra's urban population is concentrated in the BMR and in about 10 other medium-sized cities. The largest urban areas in the state--Bombay, Nagpur, Pune, Sholapur, and Kholapur and recently Thana and Kalyan (in the BMR)--are administered by municipal corporations.

1.07 While Maharashtra ranks about third in per capita income, (Rs 2519 in 1981/82) after the Punjab and Haryana, the state has the largest net domestic product, state revenues, share of organized sector employment and percentage of employment in non-agricultural sectors. Large- and small-scale industry in Maharashtra easily ranks first in India in numbers employed, fixed assets, value of gross output and value added. Also Maharashtra ranks first in loans from state financial corporations, industrial licenses issued, deposits and credits in nationalized commercial banks, per capita electricity consumption in industry and residences and port traffic (through Bombay Harbor). Maharashtra's real per capita income growth of about 3%/year (1971/76-1981/82) is the highest of any major Indian State.

1.08 Despite its generally high wealth and income, 48% of Maharashtra's population still had incomes below the poverty line (1977). In 1971, 42% of the state population were identified as living in industrially "backward" rural districts, in which agriculture is much less developed than in the average Indian state.

1.09 The Government of Maharashtra's (GOM) urban policies aim at reducing the disparity between the industrialized and urbanized wealthier areas of Maharashtra--the Bombay-Thana-Pune axis--and the backward, rural areas of the state. Investments in irrigation (only 11% of the state's cropped area was irrigated in 1975/76), communications and industry are intended to improve

socio-economic conditions in rural areas. Maharashtra's Sixth Plan investments are concentrated in power (41%) irrigation (18%) and agriculture. Only about 11% of plan investment is provided for water, sewerage, urban development, and housing. Although the state's annual expenditure on housing is the largest in India (Rs 24 crores in 1976/77), as a percentage (2.7%) of the State plan expenditure--in the State with the largest Revenue Budget in India--it was relatively small. However, Maharashtra's cooperative housing movement with 390,000 members and borrowings of Rs 114 crores, was the largest of any Indian state (in 1975), only Gujarat coming close in size. Private investment in housing in Maharashtra is at least twice the public investment in housing, servicing land and improving existing slums. Private economic activity (and that of central government and national corporations) is concentrated in the BMR and a few other medium-sized urban areas: Pune, Nagpur and Solapur.

Bombay Metropolitan Region (BMR)

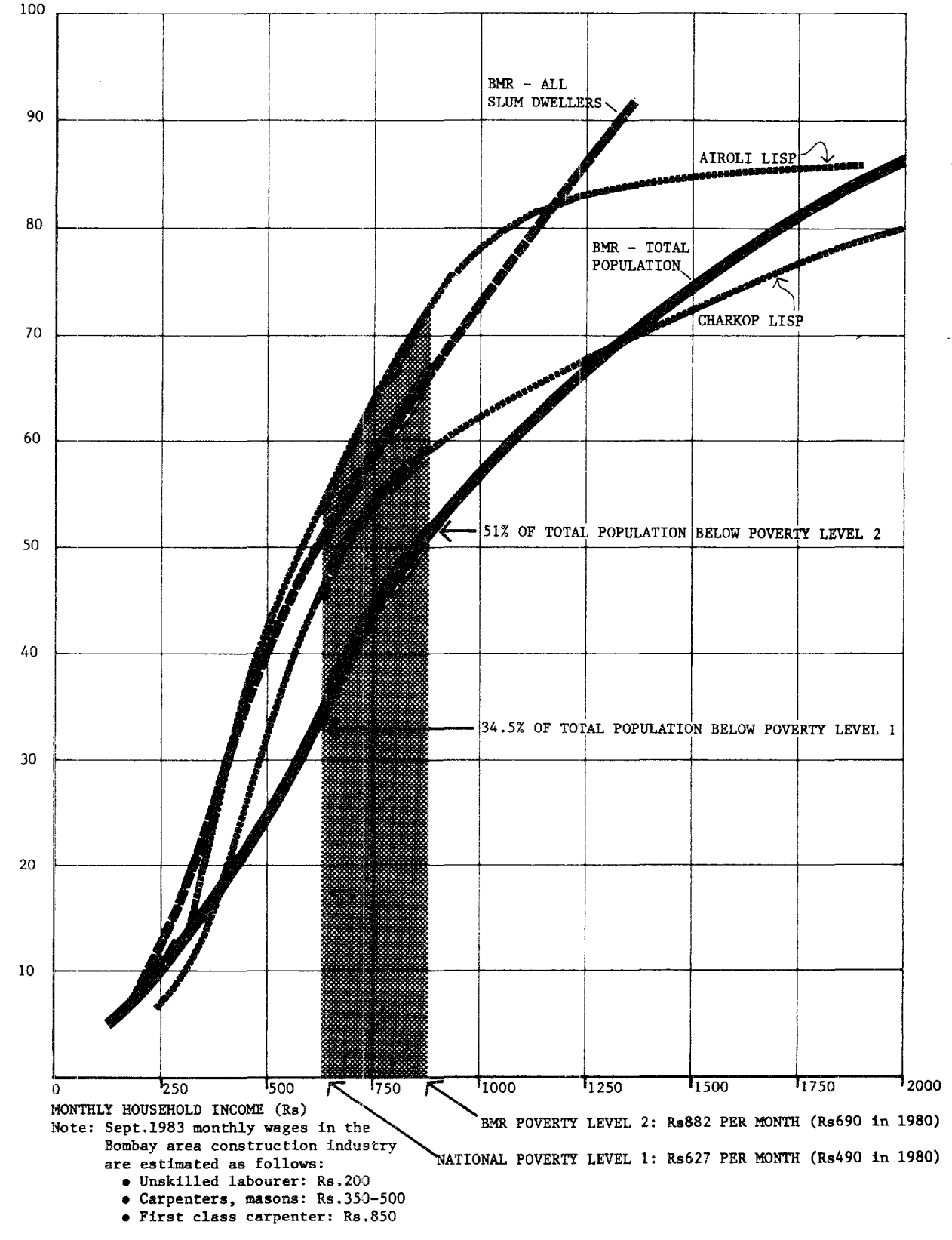
1.10 Maharashtra's position as the most industrialized and urbanized state in India is largely due to the BMR's weight in the State economy. A 4370 km^2 planning (not administrative) area, with an urban population of 10.5 million- (1983 estimate), the BMR is the largest metropolitan area in India. The BMR generates about 10% of the factory employment and manufacturing value added in India and about 25% of India's income tax revenue. Employment growth of 2.6% per annum in organized establishments in recent years is lower than in earlier years and highest in office-oriented activities (3.4% annually) but still generates incremental employment of about 51,000 jobs/year.

1.11 Forty five percent of Maharashtra's urban population are concentrated in the BMR, whose urban population was growing at 3.7% annually. This is lower than the 4.0% annual growth rate of the decade 1961-71, but still adds 65-75,000 households per year to the urban population. By 1991 the BMR population is expected to be about 13 million people.

1.12 Eighty four percent of the BMR population are located in the 437 km^2 Bombay Municipal Corporation (BMC) area (see Map 17583). But the 149 km^2 Thana Municipal Corporation (TMC) and 400 km^2 Kalyan Municipal Corporation (KMC) areas, with 1981 populations of about 475,000 and 840,000 serve as industrial expansion areas of Bombay and have experienced population growth rates over the last two decades of the order of 5% per annum compared to BMC's 3.2%. A large amount of industrial investment is concentrated in Maharashtra Industrial Development Corporation's (MIDC) Thana-Belapur industrial estate in New Bombay. The urban population of the 330 Km2 New Bombay plan area, which has also been growing at over 5% per annum, is projected to increase from about 260,000 in 1981 to over 700,000 by 1991 as a result of increasing warehousing and commercial activity in the area and the residential opportunities which would be provided by The Bombay Urban Development Project (BUDP) and City and Industrial Development Corporation's (CIDCO) substantial, 10,000 unit per annum non-IDA, HUDCO-financed programs. BMR per capita incomes (of Rs 1376 in 1976) are among the highest in India. But nevertheless, 50% of the BMR population are estimated to have incomes below the 1983 Bombay absolute poverty level of Rs 880 per month per household (Chart 1.1).

INDIA
BOMBAY URBAN DEVELOPMENT PROJECT
INCOME DISTRIBUTION

Chart 1.1



Note: Sept.1983 monthly wages in the Bombay area construction industry are estimated as follows:

- Unskilled labourer: Rs.200
- Carpenters, masons: Rs.350-500
- First class carpenter: Rs.850

1.13 Responsibilities for planning and managing urban development in the BMR rest in a number of state and local authorities. Investment plans and decisions in the BMR are made by a wide range of agencies in the central, state, local and district administrations, semi-autonomous public agencies and by private firms. As a major employer and landholder and through the large investments made by its agencies, GOI exerts a considerable influence on BMR's development. GOM's Department of Urban Development has the primary responsibility for State Urban Development investment programs in the state, while the GOM Department of Housing and Special Assistance is responsible for the housing sector. The Bombay Metropolitan Region Development Authority (BMRDA), which is under the GOM Urban Development Department, is responsible for physical planning and investment programming in the BMR and over-all regulation of land use (para 4.03 and Annex 15).

1.14 Local government have important responsibilities for land use planning, within their jurisdictions, and for the administration of the Development Control and Building Regulations (DCBR). The BMC, which is one of the largest local government authorities in the world, is by far the most important local government in the BMR. In order to strengthen the management and services in the fast-growing urban areas outside the BMC, GOM created the Thana Municipal Corporation (TMC) and the Kalyan Municipal Corporation (KMC) in September 1982 and September 1983, respectively and issued a Preliminary Notification in November 1983 for creating a Municipal Corporation for the New Bombay area (NBMC). The administrative areas of the TMC and KMC include areas which were formerly under weak municipal or village administrations (Map 17583). The NBMC would administer areas for which CIDCO now provides local government services. The improved revenue, staffing and administrative powers of the municipal corporations should improve urban management over time.

1.15 In practice, the planning and coordination of state resource generation and expenditure in Maharashtra is focused in the GOM Planning and Finance departments through the mechanism of the annual budget and the State Five Year Plan. However, the Plan does not adequately take into account the investment or contributions to urban development objectives of central government, local government agencies and public and quasi-public agencies (like CIDCO and the Maharashtra Cooperative Housing Society, MCHS) or the private sector. Until BMRDA was created, there was no mechanism to coordinate policy, investments and objectives relating to the urban development activities of Central, State and local government and the private sector.

C. BMR Land, Shelter and Services

1.16 For many years the legal supply of serviced land and housing in the BMR has amounted to only about 35% of the annual incremental household need. The private and public supply of housing, mostly in apartments, at costs ranging from Rs 30,000 to over 100,000 (US$2,730-9,090), is unaffordable to at least 50% of the population, even though low income purchasers of public housing are heavily subsidized. Since 1974, slum improvement programs under the State Minimum Needs Program have covered about 2 million people in BMC slums on public land, at a current cost of Rs 200/capita. These programs, now the responsibility of the Bombay Housing and Area Development Board (BHADB) of the Maharashtra Housing and Area Development Authority (MHADA),

marginally improved environmental conditions, but did not provide for security of tenure, adequate cost recovery, maintenance and environmental services. The BHADB also repairs and reconstructs old tenement buildings in downtown Bombay, covering about 1000 units a year, using funds from a cess on about 20,000 old buildings (housing 300-400,00 households) and from GOM and BMC. Because of inadequate rental income, old (80% built before 1940) and renovated units are poorly maintained by private owners and the BHADB program contributes little to the permanent stock of environmentally acceptable shelter. Institutional housing construction finance in the private sector is largely supplied by the Housing Development Finance Corporation (HDFC) and the Maharashtra Cooperative Housing Society (MCHS). Their programs are small in relation to the need and the potential demand, if adequate amounts of affordable serviced land were to be available for shelter purposes.

1.17 Land, infrastructure and housing costs are substantially increased by provisions in the DCBR administered by local governments. The unnecessarily high DCBR standards are inappropriate to the needs of low income families and contribute to the acute shortage of affordable serviced land for residential and other uses.

1.18 The GOI Urban Land Ceiling Act (ULCA) of 1976 was intended to allow the State Governments to acquire urban "vacant" (undeveloped) private land at a fraction of market value, so that low income shelter needs could be met. Due to the resistance of private owners to surrendering their land, the Act resulted in a freezing of transactions in several thousand hectares of BMR vacant land. The market price of land shot up to put the costs of shelter even further out of reach of the majority of BMR households. Little land has been acquired under the Act by GOM.

1.19 Except from 1925-1938, rent control measures have been operated in Greater Bombay since 1918. The Bombay Rent Control Act of 1947 froze "standard rents" of households in existing properties at the 1940 rental value and properties built later at their initial rental values. Under the Act, tenants and their heirs obtain a lease and a rent which is more or less fixed in perpetuity and the standard rent for several hundred thousand Bombay households is in principle only a fraction of the market value. Owners have little or no legal means of regaining the use of their property, or obtaining sufficient revenue to maintain properties and earn a reasonable rate of return on investment. Investment in new, legal rental accommodations, particularly for lower income families, is practically non-existant. Prices of illegal properties, both for sale and rental, are highly inflated and tenure on such properties is insecure. Transactions in existing properties for rental purposes are stifled. By contrast, it has been observed that in Nagpur, Maharashtra, where residential premises constructed after 1951 and non-residential premises constructed after 1967 were exempted from rent control, housing construction has been quite vigorous.

1.20 Controlled rents are the basis for the property tax and therefore rent control severely reduces local government revenues from the property tax, which should be a major and equitable source of indirect cost recovery for public services. Consequently, local government resources are inadequate for the maintenance and delivery of services to existing neighborhoods and cannot meet the needs of the rapidly expanding urban population.

1.21 High urban population growth rates and the factors mentioned above, have led to land and housing being Bombay's most critical problem. About 50% of the population live without tenure and adequate services in hutment areas under private and public ownership (Table 1.1) and on the pavements. Another 10-15% are crowded (3-5 m^2 of space per person) into decaying, environmentally unacceptable, old, multi-story tenements, (chawls) which, because of rent control, can neither be maintained nor upgraded, despite the efforts of BHADB (para 1.16). The land and housing shortage in Bombay is worse than in most other major Indian metropolitan areas. Overcrowding and poor sanitary conditions are as bad as in the worst metropolitan areas in other countries.

Table 1.1: LAND OWNERSHIP AND DISTRIBUTION OF POPULATION IN HUTMENTS (1976) 1/
(1,000 persons)

Location	Land Ownership				
	BMC	GOM & BHADB	GOI	Private	Total
1. Island City	369	61	40	45	515
(Wards A-G)	(59) 2/	(8)	(21)	(3)	(16)
2. Suburbs	224	284	147	665	1320
(Wards (H,K,L,M&N)	(36)	(38)	(77)	(41)	(42)
3. Extended Suburbs	32	251	5	500	788
(Wards P,R,T)	(5)	(34)	(2)	(31)	(25)
4. Unidentified		144		402	546
		(20)		(25)	(17)
Total	625	741	192	1612	3169
	(100)	(100)	(100)	(100)	(100)

1/ Only for the BMC. In addition 40-50% of the TMC and KMC population probably reside in illegal environmentally unsound hutment areas.

2/ Figures in brackets are % of total in the column.

1.22 Provisions for environmental services, including maintenance of roads, water supply and sewerage, and drains and solid waste collection and disposal, vary widely in different BMR local government (and CIDCO) jurisdictions and neighborhoods. BMC's maintenance and services for the city as a whole are well managed and relatively efficient. However, local government finance, administration and services in the TMC and KMC areas are very inadequate and population growth in New Bombay is already starting to outstrip CIDCO's powers and capacity to provide the management and finance needed for adequate local government services. The expenditures on services for hutment areas in all local government jurisdictions is very inadequate and most of the 50% of hutment households on privately-owned land receive neither improvements nor services.

1.23 Largely because of the octroi tax, the revenues of Municipal Corporations in the BMR are high compared to cities like Madras, but are quite inadequate in relation to the high growth in population and the need, in BMC, to provide services for national and regional economic activity. In the TMC and KMC jurisdictions the capacity of management and accounting systems is a major constraint to the improvement and expansion of municipal services.

D. Bank Group Role and Strategy

1.24 The Bank Group's support for urban development in India has concentrated over the past decade on three of India's largest cities--Calcutta, Madras, and Bombay. The first Bank Group-supported urban projects, in Calcutta and Madras, financed integrated packages of urban services (i.e., sites and services, slum upgrading, water supply, sanitation, and transport). Follow-up projects in both cities have continued this pattern, although in Calcutta, three general urban development projects have been supplemented by a sectoral project, the Calcutta Urban Transport Project, which supports a program of investments and policy measures designed to alleviate the critical transport deficiencies in the city. In Bombay, a sectoral approach has been followed from the beginning, largely due to the strength of sector institutions and the lack of a strong regional development authority to prepare and coordinate a multi-sectoral project. Projects in Bombay have thus far focused on transport and traffic management, water supply and sewage disposal, including two projects for the Bombay Municipal Corporation (BMC) Area and another for Kalyan-Thana expansion areas adjacent to BMC. A third water and sewerage project for BMC is currently under preparation. In the case of each of the Bank Group-supported urban projects, the objective has been not only to raise the level of urban services provided to the population, but also to strengthen urban planning and service delivery institutions, particularly those of local government, and to improve the use of available resources and local resource mobilization.

1.25 All of the urban projects financed to date have supported policy changes in urban investment programs as well as institutional improvements. Policy changes accomplished include: (i) design changes (e.g., cost per household for land, infrastructure, and shelter has been reduced by some 75% over previous programs); (ii) improved cost recovery (e.g., interest rates increased from 4-5% to 12% and substantial bus fare and water tariff increases); and (iii) the gradual shift of housing construction and finance from the public to the private sector with the public sector focusing on land and infrastructure development. Institutional strengthening has included improved municipal accounting, financial management and maintenance and support for planning, coordination and performance evaluation by metropolitan development authorities.

1.26 While the importance of improved management of India's major metropolitan areas has not lessened--and the Bank Group is prepared to continue involvement in Bombay, Calcutta, and Madras--the scope of urban development activities is now being broadened to include medium cities, which coincides with GOI emphasis on development in small and medium towns. Thus, the experience gained in the major metropolitan areas is being put to use to strengthen the management of these medium-sized cities. Urban projects for Kanpur and Madhya Pradesh represent the first steps in this direction.

E. Government of Maharashtra Initiatives

1.27 The proposed BUDP marks a sharp departure by GOM from past policies and programs towards the investment and institutional priorities supported by other Bank Projects in India (para. 1.25). The BUDP originated in a Bank mission in 1979 (and a Bombay City Study in 1980), which identified land, infrastructure and shelter development as being among the most critically neglected BMR problems which had not yet been addressed by the Bank's substantial and successful involvement in other urban sectors (para 1.24). But, it was not until 1981 that GOM set up a committee to formulate an Affordable Low Income Shelter Program (ALIS) for the BMR. Under the initiative of the Bombay Metropolitan Region Development Authority (BMRDA), the Maharashtra Housing and Area Development Authority (MHADA) and the GOM Department of Housing, the Committee produced an Affordable Low Income Shelter (ALIS) Five-Year Program in January 1982.

1.28 The technical preparation of BUDP also benefited from the experience gained during the implementation of the Bombay Urban Transport and Water Supply and Sewerage Projects and the Madras, Kanpur and Madhya Pradesh Urban Development Projects, particularly in respect of: advance programming of land acquisition; packaging of civil works contracts; community development work in slum upgrading; strengthening the organization for processing estates transactions; and the institutional requirements for planning and programming the shelter sector.

II. THE PROGRAM AND THE PROJECT

2.01 The project forms part of GOM's Affordable Low Income Shelter Program in the Bombay Metropolitan Region (BMR) for the period 1983/84-1989/90, including the last two years of the VIth and all of the VIIth Plan Periods. The overall objective of ALIS is to secure a better match between the resources realistically available for land, infrastructure and shelter investment from the private, cooperative, and public sectors and the need for environmentally-acceptable, legal land and shelter (EALS) for: (i) new BMR households (emerging at a rate of over 65,000/year); and (ii) existing slum households (UN-EALS) numbering about 1 to 1.2 million out of a total of 1.96 million BMR households.

2.02 BUDP would support additional ALIS objectives of: (i) shifting public investment (including non-IDA financed schemes) from subsidized, high unit cost, apartment construction programs into programs focussed primarily on producing large numbers of residential, commercial, and small industry serviced plots at much lower unit costs with practically full cost recovery (para. 5.01); (ii) halting slum growth by about 1987 subsequently reducing the absolute number of households in slums at the fastest possible rate, and (iii) exploring ways and means for shifting private capital into the production of legal affordable shelter (in the form of serviced plots and low-cost dwellings) for low-income families in both moderate and accelerated slum transformation programs. Chart 2.1 and Table 2.1 (see also Annex 1) compare the number of households living in environmentally unacceptable, and/or illegal dwelling units for three slum transformation strategies: (i) past programs continued without BUDP (conventional); (ii) with BUDP, but

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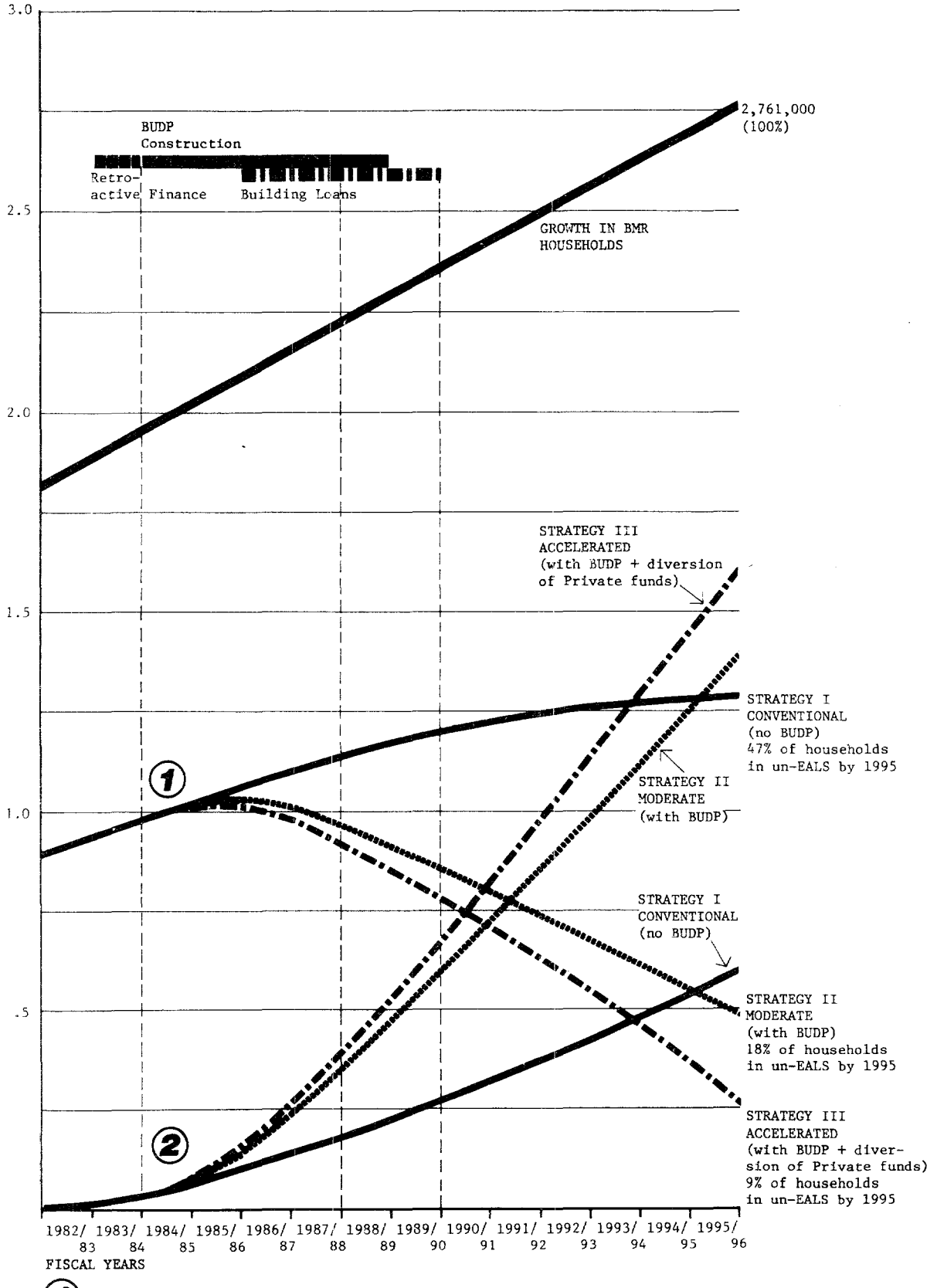
SLUM TRANSFORMATION STRATEGIES

Chart 2.1



(1) REDUCTION IN un-EALS UNITS-COMPARISON BETWEEN STRATEGIES I,II,III

(2) PRODUCTION OF EALS UNITS-COMPARISON BETWEEN STRATEGIES I,II,III

no major policy changes to shift private investment directly into sites and service type land development (moderate); and (iii) with BUDP and with policy changes to shift private investment into sites and services type land development (accelerated).

2.03 The moderate strategy, which is embodied in the physical components of the proposed project, would result in an unprecedented threefold annual increase in the supply of serviced land (shelter units) in the BMR by the public and private sector and a commensurately large increase in private, non-project, individual investment in housing built on project plots. Nevertheless by 1990 the number of families in slums would be about the same as in 1983. The project would therefore also seek to foster the adoption of an accelerated strategy which would increase the supply of serviced plots and shelter at an even faster rate. Because of limitations in the capacity of the public sector, an accelerated slum transformation strategy would depend on policy changes to stimulate an increase in land and infrastructure servicing by the private sector.

A. Policy Issues

2.04 To enable ALIS to achieve its long run objective of reducing the absolute number of households in slums, BUDP would support GOM's efforts to improve policies and institutions which affect the management of urban development by the public sector and the private sector's contribution to the ALIS program.

2.05 During the preparation of BUDP, GOM has already made such improvements: (i) for better planning, coordination and monitoring and evaluation of BMR development programs (such as ALIS/BUDP) by restructuring BMRDA (para. 4.03); (ii) for increasing local government institutional capacity to manage, finance and maintain essential services, by creating Municipal Corporations in Thana and Kalyan and initiating action to create a municipal corporation for New Bombay (paras 4.18-4.21); (iii) for more efficient and equitable land and infrastructure servicing, by adopting and incorporating in BUDP performance-oriented Development Control and Building Regulations (DCBR) for the public sector and by agreeing to studies (para 2.31) to explore the ways and means by which the DCBR would by applied by local government to the private sector, so as to achieve health and safety objectives and through the approval process also induce the private sector to include in their schemes low cost sites and services-type plots, affordable to low income families and (iv) for freeing land for public and private housing development, that has been held off the market by the Urban Land Ceiling Act (ULCA), by experimenting with a new scheme under the Act, which is intended to provide land for public sites and services development and allow private development to recommence.

Table 2.1: ALIS PROGRAM - SLUM TRANSFORMATION STRATEGIES IN THE VI & VII PLAN PERIOD (1983 - 1990)

Main Features of Strategy		Strategies I Conventional	II Moderate	III Accelerated
Higher Level of Public Investment in Shelter from 1983/84-1989/90		Yes	Yes	Yes
Diversion of public investment to LISP 1/ and SUP 2/ development (BUDP)		No	Yes	Yes
Diversion of private investment directly to LISP type of development		No	No	Yes
Higher level of public investment in LISP and SUP type development after 1988.		No	No	Yes
Indicator	1982/83 Base	1989/90 Outcomes		
Total Households (million)	1.96	2.43	2.43	2.43
Slum Households (million)				
(a) Low estimate	0.99	1.23	0.80	0.70
(b) High estimate	1.24	1.49	1.06	0.96
Investment (Rs Crores annually) 3/				
Total	220	327	471	503
Public	75	125	172	181
Private/Coop	146	203	203	203
Private Individual on LISP and SUP sites (IDA & Non-IDA)	-	-	96	119
Annual Supply (units, environmentally acceptable and legal)				
Total	32,500	47,750	126,800	147,800
Public	13,000	21,750	100,800	108,900
Private	19,500	26,000	26,000	38,900
Property Tax 4/ (Rs Crores annually) 3/	5.5	53.2	69.2	72.0

1/ Land Infrastructure Servicing Program under BUDP.
2/ Slum Upgrading Program under BUDP.
3/ Constant 1983 Rupees in all cases.
4/ Property Tax on cumulative units.

2.06 Rent Control and Property Tax Reform. Rent control and property tax reform, which are inter-linked, are essential to improving the maintenance of existing rental housing, encouraging private investment in the long run in rental and other housing and to increasing local government resources for

maintenance and delivery of environmental services which are not recovered by direct user charges.

2.07 Rent control and property tax reform is therefore among the major means for achieving the long term objectives of ALIS (paras 2.01 - 2.02) and supporting the supply-oriented programs of BUDP. With a view to ensuring that measures of reform do not cause a large and sudden increase in rents on existing premises, GOM has proposed to amend the Rent Control Act in order to provide: (i) for new and reconstructed properties (both residential and non residential) and for existing commercial and industrial properties to be free from rent control; (ii) for rents on other existing properties to be adjusted so as to provide a fair rate of return to landlords; and (iii) to amend the Bombay Municipal Corporation Act in order to fix the rateable value for property tax on the basis of the actual annual consideration paid by property occupiers. These proposals are generally satisfactory to IDA. There has been appreciable progress towards achieving rent control and property tax reform in Bombay over the last two years. Also, GOI's positive commitment to the objective of rent control reform in its Approach Paper to the Seventh Five Year Plan is an encouraging development.

B. BUDP Objectives

2.08 In support of ALIS, BUDP's objectives are: (i) to make a large increase in the public supply of affordable land, infrastructure and shelter, particularly for low income families and small businesses; (ii) to substantially improve Local Government financial and administrative capacity to deliver and maintain services, particularly the infrastructure created under BUDP; (iii) to strengthen Government's institutional capacity to plan, coordinate, implement, and evaluate ALIS/BUDP projects, programs, and policies and replicate the achievements; (iv) through more efficient and equitable land use planning and pricing policies and more appropriate performance-oriented design standards, development control, and building regulations to aim at improved public sector cost recovery and a major reduction in the public and private costs of shelter investment; and (v) to direct a larger proportion of private investment in land servicing and shelter construction into low cost units for low income families.

C. Project Description

2.09 The project to be implemented from November 1983 to March 1990, would consist of the components, shown in Table 2.2 in accordance with the implementation schedules shown in Charts 1 and 2.

Table 2.2: THE PROJECT

	Rs (Crores)	US$ (Millions)
A. Land Infrastructure Servicing Program (LISP). About 85,000 serviced residential, commercial and small industrial plots, including community facilities, core housing, and house expansion loans, on 13 sites in 5 BMR sub-regions, benefitting about 500,000 people.	133.0	120.9
B. Slum Upgrading Program (SUP). Upgrading of about 300 ha of slum areas, mostly in the BMC, including provision of tenure, improved infrastructure services, home improvement loans and community facilities, benefitting about 500,000 people.	37.4	34.0
C. Local Government Finance Administration and Services (LOGFAS). Equipment and civil works for improving the maintainance of roads, drains and services, and collection and disposal of refuse, in the BMC, TMC, KMC and NBMC, directly benefitting over 1.0 million people.	20.2	18.4
D. Technical Assistance, Training and Equipment (TATE) for improving the capacity of project implementing and coordinating agencies.	1.6	1.5
Base Costs:	192.2	174.8
Physical Contingencies	15.2	13.8
Design, Supervision and Management	20.4	18.5
Price Contingencies	54.6	49.6
TOTAL:	282.3	256.7

Land Infrastructure Servicing Program (LISP)

2.10 Magnitude and Location of Schemes. (Base Cost: US$120.9 million; Rs 133.0 crores). About 700 ha of open land would be developed to provide about 85,000 serviced residential plots, including about 1,460 plots for apartment construction by cooperatives. About 100,000 households would be accomodated in site residential areas. Serviced land would also be provided for community facilities, including primary and secondary schools, markets and health centers, and for small-scale commercial and service industries (Sketches 1 and 2). About 13 sites would be located in five sub-regions of the BMR: (i) the North Western Suburbs of BMC; (ii) the North-Eastern suburbs of BMC; (iii) the TMC; (iv) the KMC and (v) New Bombay (Table 2.3 and Map IBRD No. 17583). The 700 ha area available in these sites is sufficient for project requirements. As a precaution, an additional nine sites, covering 336 ha of land have also been identified with suitable characteristics for project use in case acquisition problems arise on the main sites (Annex 2, Table).

Table 2.3: DISTRIBUTION OF LISP SITES

Sub-Region	MAIN LIST Gross Area (hectares)	MAIN LIST No. of Households	RESERVE LIST Gross Area (hectares)	RESERVE LIST No. of Households
BMC-W	306	47,410	117	16,380
BMC-E	68	9,520	15	2,100
NBMC	145	18,190	80	11,200
TMC	77	10,780	74	10,360
KMC	106	14,840	50	7,000
TOTAL	702	100,740	336	47,040

2.11 Land Availability. After several years of advance planning, about 70% of the land is already in MHADA, CIDCO, or BMRDA ownership. An additional 10% is in process of being acquired from private owners at Airoli. To avoid squatting, land at Airoli would only be acquired by CIDCO when needed. The remaining 20% of land, in the TMC and KMC areas, would be acquired from private owners under the ULCA or the Land Acquisition Act and is expected to be available for use in the second year of BUDP. The LISP prototype Charkop-Kandivalli and Airoli sites are respectively owned by MHADA and CIDCO and advance land preparation began on these sites in November 1983.

2.12 Site Selection Criteria. All sites are located within about 5 km of concentrations of residential, commercial and industrial activity. All sites would be connected to the water supply systems of BMC, TMC, KMC, or MIDC supply for New Bombay (CIDCO). The majority of sites would be connected to the sewerage systems of BMC, TMC, and KMC. In BMC, these systems are being installed under the IDA-assisted Bombay Water Supply and Sewerage Project II and in TMC and KMC under the IDA-assisted Maharashtra Water Supply and Sewerage Project. Airoli and a few other sites would be provided with waste stabilization ponds for disposal to the sea or existing drainage canals. Off-site main roads, stormwater drains, and high tension power lines are available near most sites. Electricity would be supplied by BEST and the Bombay Suburban Electric Supply Company in the BMC area and the Maharashtra Electricity Supply Board in the TMC, KMC and New Bombay areas. All the sites in the BMC and TMC areas are served by existing bus routes of the BEST or nearby stations of the suburban railway system. Maharashtra Road Transport Corporation (MRTC) and CIDCO's Bombay Metropolitan Road Transport Corporation (BMRTC) buses ply on existing routes close by the KMC and New Bombay sites and are supplemented with bus services provided by factories in these areas. In the mid term, the bus service in NBMC and the bus service and basic road networks in TMC and KMC will need to be strengthened to meet the new transport needs of the growing populations. Assurances were obtained that LISP schemes will only be implemented on sites which have been already selected on the priority or reserve list of sites or such other sites as may be satisfactory to IDA.

2.13 Airoli. The Airoli site for about 18,200 plots under the project would constitute an urban "node", or new city, of about 90,000 population. It is adjacent to large concentrations of populations and industrial activity in Thana and Kalyan and the Thana-Belapur belt of industries in New Bombay.

Because of its location, Airoli plots would attract households throughout the BMR. Also, because of its location in relatively undeveloped New Bombay and its size, Airoli would not be able to draw on off-site infrastructure and community facilities which are normally available to smaller sites located in developed urban areas.

2.14 In Airoli, therefore, the project would finance off-site nodal infrastructure including trunk roads, a channel, bund and holding pond for land reclamation, water and solid waste facilities and serviced land and buildings for community facilities.

2.15 Cost and Layout Planning. Final designs, layouts and cost estimates are available for: (i) 15,740 plots at Charkop-Kandivalli (BMC-west) which requires filling and is typical of about 50% of the total area of LISP sites; and (ii) for the first phase of about 5,120 plots on the Airoli site, which is typical of 50% of the area of LISP sites which would be on relatively well drained, level land requiring moderate fill and land preparation. Detailed cost estimates for the Charkop-Kandivalli and Airoli sites are in Annexes 3-5.

2.16 An objective of site planning, is to ensure that no less than 45-55% of residential plots would be affordable to very low-income families earning about Rs 250-625 monthly (para 5.14). An additional 10-20% of plots would be made affordable to low income families earning between Rs 625-875 monthly. In the layout designs, (Maps 2-5), the plot location and amenities provided are appropriate to the needs of each income group and also thereby strike a reasonable relationship between the costs of servicing particular plots, market value, and the payment capacity of the intended income group. A high efficiency of land use would be achieved, with about 30% of gross site area being used for roads and open space compared to the less efficient site utilization resulting from applying the conventional DCBR (para 2.05).

2.17 A relatively high average gross residential density of about 145 households per ha would be achieved, because of efficient site planning and the inclusion of apartment plots. Plot sizes would vary from $21m^2$ for families with incomes as low as Rs 250 /month to up to $100m^2$ for families with income of about Rs 2500/mo. Individual $750m^2$ lots for apartment construction by cooperatives would each house about 10-15 high income families.

2.18 Service Standards. Individual water supply, sewerage, and electricity connections would be provided to each plot. In most sites, high residential densities, impermeable soils, and the availability of off-site sewage disposal facilities make conventional sanitation facilities the least-cost alternative. A water supply standard of 90 lpcd from yard pipes and 180 lpcd from individual connections is being used for low income and higher income plots respectively.

2.19 Most small plots ($20-28m^2$) would front on 3 m and 4.5 m pedestrian lanes or common courtyards 10 m wide and larger plots would front on roads with rights of way, from 6m to 15m wide and bituminous surfaced, in double lane from 4 m to 9 m wide. Electricity networks, connections and street lighting would be provided, as would roadside drains and waste collection bins. Design standards for land and infrastructure servicing schemes are shown in Annex 6. The plans, layouts, engineering designs and standards and

development and building regulations applied on LISP sites would be in accordance with proto-types developed at appraisal and will be submitted to IDA prior to issuance of bidding documents. Assurances were obtained that plans, layouts, engineering designs and standards and development and building regulations applied by all agencies in LISP and SUP sites will be acceptable to IDA.

2.20 Core Housing and House Expansion Loans. (Base Cost: US$12.3 million; Rs 13.5 crores). Core housing would be provided under the project only on the lowest income plot options (Table 2.4), together with optional core expansion loans. The core would vary from merely a squat pan, water point, and plinth for lowest-income households, to which would be added bare side walls and a roof in row houses for households with about Rs 875/month income (Sketch 3).

Table 2.4: CORE HOUSING OPTIONS *

Option	Core Cost	Optional Core Expansion Loan
	---Rs---	
1. Basic-squat pan water standpipe and 12.8m^2 plinth	2,519	1,000
2. Basic with 14.5m^2 plinth and two side walls	4,468	2,000
3. Basic with 17.0m^2 plinth plus two side walls and roof	7,056	3,000

* For Airoli

2.21 Beneficiary Selection. Procedures for the selection of beneficiaries include: reserving each plot type for a specific income group, sample surveys of applicants' incomes and selection by lottery, if applicants exceed the available number of plots. Higher income and cooperative society apartment plots for households with monthly incomes over Rs 2,500 and commercial and service industry plots would be auctioned, or allocated following applications, at prices depending on prevailing market conditions. Plots for households with middle incomes of about Rs 2,000/month would be sold at market prices. Secure long term tenure would be provided to beneficiaries in the form of renewable leasehold agreements for 60 years.

Slum Upgrading Program (SUP)

2.22 Magnitude and Location of Schemes. (Base Cost: US$34.0 million; Rs 37.4 crores). About 200 slum hutment, squatter areas mostly in all 15 BMC wards would be converted into legal, environmentally-acceptable neighborhoods under the project through the provision of infrastructure improvements, long-term, leasehold tenure, and loans for home improvement. Also, hutment areas in the TMC would be identified for upgrading with technical assistance and funds provided under the project (para 2.31). A total of about 100,000 households (500,000 people) and numerous small shops and industries, occupying about 300 ha of land would be covered. These would be about 12% of the

total number of 800,000 households estimated to be living in illegal, environmentally-unacceptable hutment areas in 1981.

2.23 Land Acquisition and Tenure. About 90% of the neighborhoods which would be improved are located on government-owned land. The remaining 10% of hutment areas in the program are on private land which would be acquired by MHADA either under the Urban Land Ceiling Act or under the Land Acquisition Act. This would demonstrate the feasibility of upgrading such slums, which now have little or no services, although they contain about 50% of all BMC hutment households. Assurances were obtained that GOM will aim to implement about 10% of the slum upgrading in SUP schemes under the project with households located on privately owned land.

2.24 Neighborhood Types and Criteria for Selection. Three neighborhoods types requiring different levels of improvement (Table 2.5) including twelve thousand households in neighborhoods to be upgraded in the first year and a half of the program have been identified. MHADA would submit annually to IDA a list of the neighborhoods to be included in the next fiscal year of the project. Among the criteria for including neighborhoods in the program are: willingness of households to accept conditions for paying for tenure and improvements; demolition and relocation required for less than 5% of huts; excessive investment in on- and off-site infrastructure not required; and area unaffected by realistic and essential development plan requirements.

2.25 Costs, Improvement Planning, and Design Standards. Existing slum areas would be improved by providing water, sanitation, roads, footpaths, drainage, street lighting, and landscaping. Except for public conveniences, community facilities (primary schools, and health care facilities) would not be provided, as the need is met by existing facilities in or near to neighborhoods. Space permitting, plots for additional shops and residences would be created for sale to enhance revenues. Assurances were obtained that the selection of neighborhoods for the slum upgrading program and their plans, layouts, designs and standards shall be satisfactory to IDA.

Table 2.5: TYPES OF SLUM HUTMENT AREAS

Type	Number of Households	(%)
A. Tenure, Home Improvement Loans and marginal infrastructure improvements	20,000	20
B. Tenure & Home Improvement Loans and considerable neighborhood infrastructure Improvements	50,000	50
C. Tenure, Improvement Loans, neighborhood improvements and critical engineering works, on and off-site	30,000	30
TOTAL	100,000	100

2.26 Tenure and Service Standards. As in LISP, tenure would be provided to SUP households in the form of a 60-year renewable leasehold. The service standards adopted for the component include a water standpipe for 15 households at a standard of 45 lpcd, a W.C. pan for a maximum of 10

households, footpath access and surface water disposal at every plot, a garbage collection point within 55 meters of every plot and road access within 55 meters of each plot (Annex 7).

2.27 Home Improvement Loans (HIL). (Base Cost: Rs20 crore, US$20 million). Loans ranging in value from Rs 1,000 for the lowest income household in a small, poorly-located plot in the inner city (Zone I) to Rs 5,000 for the highest income household on a large, well-located plot in the suburbs (Zone IV), would be provided at an assumed rate of uptake of 75% of households (Table 5.2 and Annex 20).

Local Government Finance Administration and Services (LOGFAS)

2.28 Maintenance and Environmental Services. Local government (BMC, KMC, TMC and NBMC) would maintain roads and drains, water supply and sewage disposal systems in LISP and SUP sites and provide solid waste collection and disposal services, except that cooperatives of residents would be responsible for maintaining roads and drains of less than 6 m width and for bringing solid wastes to collection points. Beneficiaries would be charged directly for maintenance and services (paras 5.08 and 5.12), but the affordable charge only covers about 30% of estimated costs, ranging from Rs 14 to 35 per household monthly. GOM has identified additional sources of revenue to cover local government expenditures for the maintenance and delivery of services connected with the project. Assurances were obtained that GOM will cause the project implementing agencies to provide each year sufficient budgetary provisions for adequate maintenance in areas benefitted by the project, at a rate of Rs 1000 per household per year (in November 1984 prices).

2.29 The LOGFAS component (Base Cost: US$18.4 million; Rs 20.2 crores) would improve environmental services (including maintenance of water supply and sewage disposal systems, roads, drains and solid waste collection and disposal) and meet the substantial additional need for services generated by BUDP in BMC, TMC, KMC and NBMC areas. To test the cost effectiveness of introducing transfer stations into the BMC solid waste collection and disposal system for Bombay Island, the project would fund: garbage collection trucks, equipment and civil works for one transfer station at Mahalaxmi, tractor trailer trucks for moving compacted refuse from the transfer station to a sanitary landfill at Deonar, bulldozers and other equipment for sanitary landfill and garages and depots to maintain equipment used in the environmental services. Technical assistance and training funds would be provided under the project to BMC for consultants to assist in the design and procurement of the solid waste transfer station and for training of management and sanitation staff in methods and procedures for maintenance of solid waste and other environmental service facilities.

2.30 Funds would also be provided for a maintenance workshop in TMC and to BMC, TMC, KMC, and NBMC for equipment and civil works for maintenance and environmental services particularly in project areas. The equipment and works required in the TMC, KMC and MBMC areas would be identified with technical assistance for studies financed under the project of municipal service requirements and the management and organization need to supply them (paras 4.18-4.21). The equipment and civil works requirements and costs for TMC, KMC and NBMC are based on estimates of requirements for prototypical LISP sites and slum neighborhoods in the upgrading program for the BMC

(Annexes 8 and 9). Expert assistance to TMC, KMC, and NBMC to carry out the above studies and implement agreed study recommendations, including staff training, would also be provided under the project.

2.31 Funds would also be provided for technical assistance to TMC, KMC and NBMC for studies of their development management systems, including the Development Control and Building Regulations applied to public and private development proposals, in order to promote the supply of affordable shelter for low income groups. Assurances were obtained that the scope and time frame in respect of a program of municipal services and improvements in the development control and building regulations shall be implemented only after the recommendations of consultants for the program have been jointly reviewed and agreed upon among GOI, GOM and IDA.

Technical Assistance, Training, and Equipment (TATE)

2.32 (Base Cost: US$1.5 million; Rs 1.6 crores). Technical assistance, training and equipment to improve and strengthen project implementation would be provided to the main project implementing agencies, including MHADA, CIDCO, BMRDA, BMC, TMC, KMC and NBMC and also to the BMRDA Technical Committee. Programs for training (Base cost: US$0.5 million; Rs 0.6 crores) would strengthen staff capacity: in MHADA for administration, estate management, accounting, financial management and community development; in the Municipal Corporations (KMC, TMC, and NBMC) for management and operation of environmental service facilities and (in KMC, TMC and NBMC), accounts and development regulation systems; in CIDCO for estates management; and in BMRDA for urban planning and management, quantitative techniques in urban planning, the use of computers, project management and finance, local municipal administration and personnel management in local government. The training programs in MHADA, CIDCO, TMC, KMC and NBMC would largely be defined by consultants, financed by project technical assistance funds, who would participate in on-the-job training to implement recommended systems arising from technical assistance studies. The relatively modest amount of technical assistance and training provided under the project is addressed to critical needs, but also reflects the intrinsic strength and potential of existing staff in project implementing agencies. All of the preparation of BUDP was done by implementing agencies without consultant assistance, with the advice from time to time of IDA staff. Expert advisors provided under the project would play a similar role during project implementation. The nature and purpose of this assistance, training and equipment is detailed in Annex 10 and described in respect of: MHADA in paras. 4.07 and 4.10; CIDCO in para. 4.14; BMRDA in para. 4.04; BMC in paras. 2.29; TMC, KMC, and NBMC in paras. 2.30 and 2.31.

III. PROJECT COSTS, EXECUTION, AND FINANCING

A. Cost Estimates

3.01 The total project cost, including contingencies and taxes is estimated at Rs 282.3 crore (US$256.7 million). Taxes and duties are estimated to amount to Rs 19.2 crores and the foreign exchange component to Rs 21.4 crores (US$19.5 million). Summary cost estimates are shown in Table 3.1 and detailed cost estimates in Annex 11. Base costs are in July 1984 prices, except, as indicated in the report, for pricing, charging and affordability tables and cost tables for LISP and SUP proto-types which are in September 1983 prices. July 1984 prices are only 4% higher than September 1983 prices. The cost differences involved are not relevant to the purposes of pricing, revenue and aggregate cost and affordability calculations. Cost estimates are based on: (a) final designs and contracts for prototypical LISP sites and preliminary designs and layouts for prototypical SUP areas in the first year of project implementation; (b) recent quotations from suppliers of vehicles and equipment; and (c) current rates for consultancy services in India and elsewhere.

3.02 Consultant services provided under the project are described in Chapter II (para 2.32 and Annex 10). A total of 468 person-months of consultants and experts, including about 7 person-months of foreign consultants would be provided at a total cost of Rs 96 lakhs (US$873,000 in 1984 prices). For training and equipment related to urban management, Rs 63 lakhs (US$573,000 in 1984 prices) has been provided under the project.

3.03 Physical contingencies have been estimated at 10% of base costs for civil works. Annual price contingencies, based on the projected implementation schedule, are estimated for both foreign and local costs: as 0% in 1983/84, 8% 1984/85, 9% in 1985/86, 1986/87, and 1987/88, 7.5% in 1988/89 and 6% in 1989/90. Contracts for about US$14 million of civil works awarded by December 1984 for retroactive financing (paras 3.04 and 3.18), were at or below July 1984 base prices.

Table 3.1: SUMMARY COST ESTIMATES

	Local	Foreign	Total	Local	Foreign	Total	% Foreign Exchange	% of Base Cost	% of Total Cost
	Rs Crore			US$ Million					
Land Infrastructure Servicing Program (LISP)	124.5	8.5	133.0	113.2	7.7	120.9	6.4	63	47
Slum Upgrading Program (SUP)	35.9	1.6	37.4	32.6	1.4	34.0	4.1	18	13
Assistance to Local Government (LOGFAS)	16.1	4.1	20.2	14.7	3.7	18.4	20.1	10	7
Technical Assistant Training (TATE)	1.4	0.2	1.6	1.3	0.2	1.5	12.5	1	1
Design and Supervision	18.7	1.7	20.4	17.0	1.5	18.5	8.2	9	7
Total Base Cost	196.6	16.0	212.6	178.8	14.5	193.3	7.5	100	75
Physical Contingencies	13.8	1.4	15.2	12.5	1.3	13.8	9.3	7	5
Price Contingencies	50.5	4.1	54.6	45.9	3.7	49.6	7.5	26	19
Subtotal	64.6	5.5	69.7	58.4	5.0	63.4	7.9	33	24
Total Project Cost	260.9	21.4	282.3	237.2	19.5	256.7	7.6	133	100
Of which Taxes:	19.2	0.0	19.2						
%:	7.3		6.8						

B. Implementation Schedule

3.04 The project would be implemented over a seven year period (including advance works) from November 1983 through March 1990, corresponding to GOM's VIth and VIIth five-year plan periods. The phasing of individual project components and related annual financial requirements are shown in Annex 12 and Charts 1 and 2. Land preparation works began on the 90 ha. site at Charkop in November 1983, in December 1983 on about 35 ha. of the Airoli site and in November 1984 on the Versova and Borivali sites. By December 1984, about Rs 15 crores of civil works contracts had been let, about Rs 5 crores of work had been completed and the first phase of plots had been marketed. The procurement of consult assistance for MHADA, TMC and BMC and expert advisors for BMRDA's Technical Committee is at an advanced stage. IDA has been involved in projects with key agencies in the urban sector in the BMR for more than a decade. The generally good experience with implementation agencies for these projects (para 1.24) and the good experience in the advance stage of BUDP project implementation indicates that the physical implementation schedule for the project can be met.

C. Responsibilities for Implementation

3.05 The responsibilities for project and program implementation are outlined in Chart 4.1. The roles of the main coordinating and implementing agencies and others with minor responsibilities and the means of coordinating their activities are described in detail in Chapter IV.

D. Financing

3.06 The project would be financed by GOI/IDA funds, GOM's resources and project beneficiaries as shown in the flow of funds diagram (Chart 3.1) and summarized in Table 3.2.

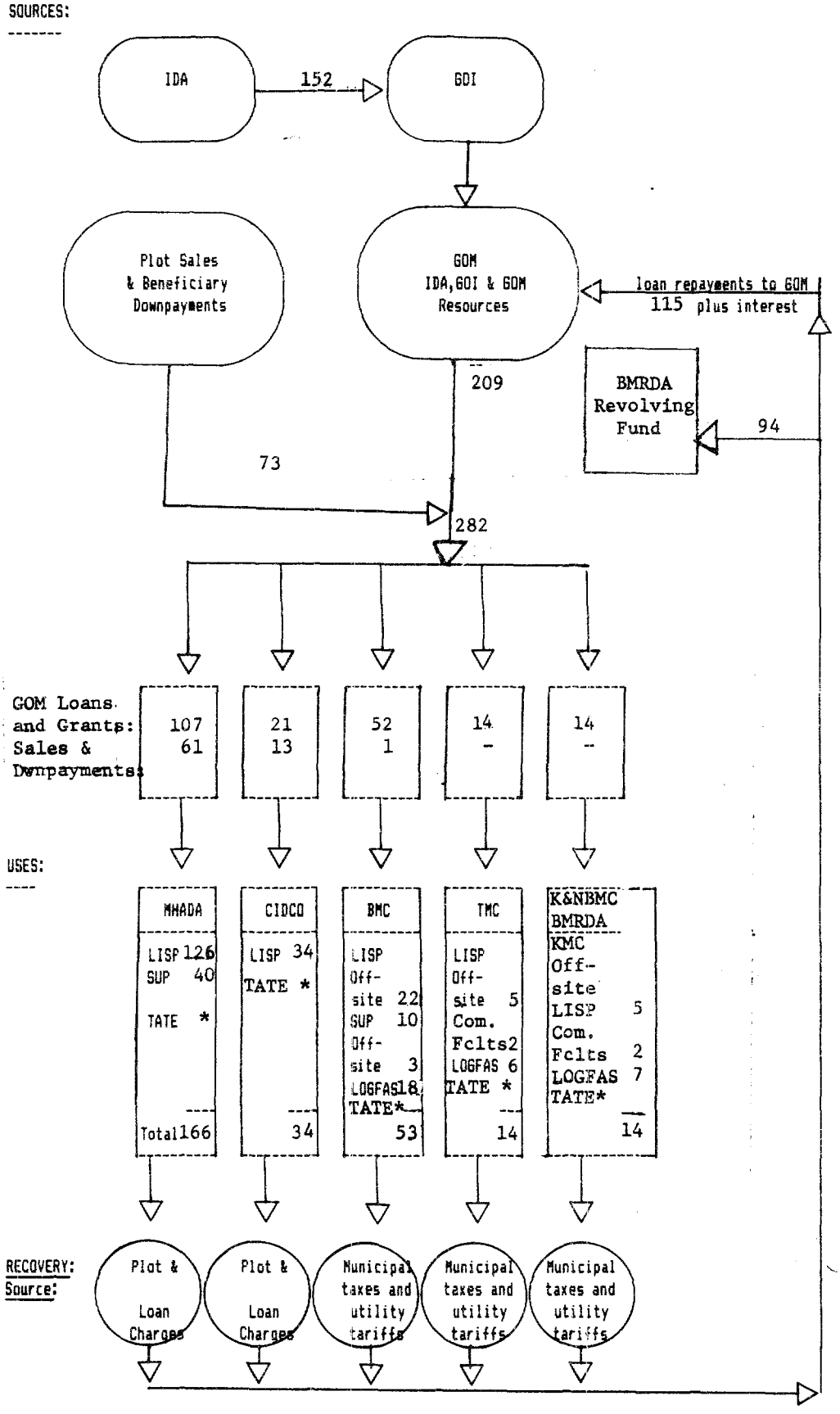
Table 3.2: SUMMARY FINANCING AND COST RECOVERY PLAN (Rs Crore)

	SOURCES OF FUNDS					APPLICATIONS BY COMPONENTS				
Executing Agency:	LOAN	GRANT	SALES	TOTAL	RECOVERY	LISP	SUP	LOGFAS	TATE	TOTAL
MHADA	105.9	-	60.7	166.6	a. Directly	126.5	40.1	-	-	166.6
		1.0		1.0	b. Non	-	-	-	1.0	1.0
CIDCO	21.3	-	12.6	33.9	a. Directly	33.9	-	-	-	33.9
		0.1		0.1	b. Non	-	-	-	0.1	0.1
BMC	52.1	-	0.5	52.6	a. Directly	-	10.0	-	-	10.0
					b. Indirectly	21.5	3.3	17.8	-	42.6
TMC	13.4	-	-	13.4	a. Indirectly	7.2	-	6.2	-	13.4
	-	0.3	-	0.3	b. Non	-	-	-	0.3	0.3
Other	13.9	-	-	13.9	a. Indirectly	7.2	-	6.7	-	13.9
	-	0.5	-	0.5	b. Non	-	-	-	0.5	0.5
TOTAL	206.6	1.9	73.8	282.3		196.3	53.4	30.7	1.9	282.3

3.07 The proposed IDA credit of US$138 million (Rs 151.8 crores) would finance about 58% of project costs net of taxes and duties. The credit would cover 100% of estimated foreign exchange costs (US$20 million), 58% of local costs and together with the GOM contributions (Rs 57 crores) 73% (Rs 208.5 crores) of the total project costs, including taxes and duties. About 26% of total project costs would be financed by beneficiaries downpayments on sales and leases of serviced plots in the LISP and SUP component. This reflects MHADA's and CIDCO's normal practice requiring beneficiaries downpayments in advance of construction, especially on sales of serviced plots to commercial, industrial, and middle to high income residential users. The detailed physical implementation schedule and corresponding cash flow forecasts incorporate these funding practices which form the basis of the overall financing plan.

INDIA
BOMBAY URBAN DEVELOPMENT PROJECT
FUNDS FLOW CHART, Rs Crore

Chart 3.1



* Tate is spread over all implementing agencies.

Relending Terms

3.08 The IDA credit to GOI would be passed on to GOM in accordance with GOI's standard arrangements for development assistance to states. The full amount of GOM's allocation for the project, including funds from IDA, GOI, and own resources, would be provided in GOM's sixth and seventh five-year plans and made available to the executing agencies, after consulting with BMRDA, as indicated in the project sources and application of funds statements in Annex 13.

3.09 GOM would onlend funds (Rs 208.5 crores) to the executing agencies for the directly and indirectly recoverable components of the project (Table 3.2) at an interest rate of 8.5% over a period of 25 years, including 5 years grace, except that principal repayments by the agencies on Rs 94 crore of GOM's onlending would be credited to a BMRDA revolving fund. TATE would be made available to the executing agencies as a grant. Assurances were obtained that the revolving fund would be established in BMRDA which would be credited with 45% of the principal amounts repaid to GOM by the implementing agencies in repayment of amounts on-lent to them by Maharashtra to implement the project and that these funds would be treated as non-refundable loans to be used for financing similar programs in future.

E. Procurement and Disbursements

Works

3.10 Procurement arrangements are summarized in Table 3.3 below:

Table 3.3: PROCUREMENT ARRANGEMENTS
(US$ Million)

Project Element	Procurement Method ICB	LCB	Other	N.A.	Total Cost
-Land	-	-	-	6.7	6.7
-LISP and SUP on/and off site infrastructure, core housing and LOGFAS civil works	-	194.6 (97.3) 1/	-	-	194.6 (97.3)
-LISP and SUP Home Improvement loans	-	-	-	39.6 (29.7)	39.6 (29.7)
-LOGFAS Machinery and Equipment	8.4 (6.3) 2/	4.5 (2.3)	1.1 (0.6)	-	14.0 (9.2)
-TATE	-	-	1.8 (1.8)	-	1.8 (1.8)
TOTAL	8.4 (6.3)	199.1 (99.6)	2.9 (2.4)	46.3 (29.7)	256.7 (138.0)

1/ Figures in parenthesis are the respective amounts financed by IDA.

2/ 100% net of taxes.

The total estimated cost of civil works contracts, including contingencies, and excluding taxes would be about US$195 million (Rs 214 crores) of which US$158.7 million (Rs 175 crores) would be for LISP schemes. For the LISP component, there would be a total of about 110 contract packages for onsite infrastructure and core houses and 80 contract packages for land preparation and off-site infrastructure. The LISP civil works contract package for all on-site infrastructure and core housing on blocks of about 1,000 plots each are an innovation for MHADA and CIDCO, who normally make small contracts for the construction of individual service facilities. Of these, a few larger contracts would have values of up to about US$1.1 million (Rs 1.2 crore). The average contract value would be about US$0.6 million (Rs 0.7 crores). There would be over 200 contract packages for civil works in the SUP and LOGFAS components, totalling US$35.9 million (Rs 39 crores). and the value of the largest contract would be about US$270,000 (Rs 30 lakh). Normally, there would be one contract of about US$91,000 (Rs 10 lakh) for the average SUP neighborhood of about 500 households. In all of the components, the relatively small scale and value of individual contract packages, their dispersion in a large number of project areas and the labor intensive construction methods and low cost technology involved would not be of interest to foreign

bidders. Therefore, LISP, SUP, BURP and LOGFAS civil works contracts would be awarded on the basis of local competitive bidding.

3.11 Local bidding procedures have been reviewed and found acceptable. Assurances were obtained that for civil works IDA would: (i) receive and review all bidding packages prior to issuance and bid evaluations prior to award for civil works estimated to cost US$800,000 or more: (ii) receive and review bid evaluations for contracts valued at US$500,000 to US$800,000 prior to award; and (iii) selectively review all other contracts after award.

Plant, Equipment and Vehicles

3.12 About US$14.0 million (Rs 15.4 crores), including contingencies, would be spent for procuring plant, equipment, vehicles and related spares. Contracts totaling approximately US$8.4 million (Rs 9.2 crores) for packages of major items under the LOGFAS component, such as bulldozers and front end loaders, would be awarded on the basis of international competitive bidding (ICB) in accordance with IDA guidelines. Domestic suppliers of plant and equipment under ICB would be allowed a margin of preference of 15% or the applicable customs duty, whichever is lower. It will not be possible to group all plant and equipment into sufficiently large packages to interest foreign suppliers and small contracts for equipment and related spares totaling approximately US$4.5 million (Rs 5.0 crores) would be let on the basis of local competitive bidding. International or local shopping for a few items of equipment, costing approximately US$1.1 million (Rs 1.2 crores), of a specialized nature, where there are only a limited number of suppliers and small amounts are involved, would be procured through normal commercial channels after obtaining, whenever possible, quotations from at least three suppliers. Assurances were obtained that all bidding packages for plant and equipment contracts over US$300,000 each will be subject to prior IDA review and that all other contracts for equipment will be subject to selective post-award review.

Home Expansion and Improvement Loans

3.13 Expenditures for home expansion and improvement loans amounting to approximately US$39.6 millions, (Rs 43.6 crores), for which procurement is inapplicable, would be made by MHADA, CIDCO and BMC in the form of fully recoverable loans to LISP and SUP beneficiaries (para 2.20 and 2.27).

Technical Assistance, Training and Office Equipment

3.14 Expenditures on the above items would amount to about US$1.8 million (Rs 1.9 crores). Assurances were obtained that consultants and advisers will be selected in accordance with IDA guidelines.

Disbursements

3.15 The proceeds of the credit would be disbursed against: (a) 100% of foreign expenditures for directly imported plant and equipment procured through ICB or shopping, and 100% of local expenditures (ex-factory) for locally manufactured plant and equipment procured through ICB; (b) 75% of expenditures for plant, equipment and vehicles procured through local competitive bidding or prudent shopping; (c) 50% of expenditures on contracts

for civil works; (d) 75% of expenditures on loans for home improvement and expansion; and (e) 100% of expenditures for technical assistance, training and related equipment.

3.16 Disbursement requests would be fully documented except for: (a) expenditure incurred for home improvement and expansion loans; (b) payments made under civil works contracts not exceeding Rs 330,000 (US$30,000); (c) payments made for locally procured items of equipment costing Rs 165,000 (US$15,000) or less. Such disbursements would be made against statements of expenditures (SOE), for which documentation would not be submitted to IDA, but retained and made available for inspection during the course of project review missions. Independent auditors acceptable to IDA would be retained to carry out an annual audit of all SOE's submitted in a fiscal year and the implementing agencies, through BMRDA, would be required to furnish the audit reports to IDA within 9 months of the end of each fiscal year.

3.17 The regional disbursement profile for the urban sector indicates disbursements over a period of about six years. For this project, the disbursement period is estimated at 5-1/2 years (Annex 14).

Retroactive Financing

3.18 To maintain the momentum of project preparation and enable sites to be prepared for the infrastructure development and site marketing and occupation proposed under the project, retroactive financing not exceeding US$7 million would be provided for project related expenditures incurred after January 1, 1984 for: (a) consulting services and expert assistance for MHADA, TMC, BMC and the BMRDA Technical Committee and (b) site preparation (land fill and essential civil works) for the Airoli and Charkop-Kandivalli sites, where construction started in November 1983 in order to allow consolidation of sites by monsoon rains of June through October 1984 and infrastructure work commenced in November 1984.

F. Accounts and Audits

3.19 All executing agencies will maintain separate project accounts, which would be audited by independent auditors acceptable to IDA. BMRDA will maintain the revolving fund for the LISP and SUP components. Each agency will prepare quarterly progress reports, which will include project financial statements, for submission to BMRDA not later than six weeks after the end of each quarter. MHADA, CIDCO, BMC, TMC, KMC and NBMC will prepare for submission to IDA annual financial statements for the whole of their activities as well as the project, accompanied by a report on the accounts and statements by an auditor acceptable to IDA, and through BMRDA will submit these to IDA within nine months of the close of each financial year. Consultants, to be retroactively financed under the project, will commence in 1985 a review of MHADA's organization, management and finance systems with a view to implementing improved systems that will enable independent auditors to satisfy IDA's audit requirements. CIDCO's accounts are already audited by independent auditors, while BMC's accounts are audited by the Municipal Chief Auditor. Consulting services would be provided under the project to assist TMC, KMC and NBMC to improve their accounting systems. The BMRDA would be

responsible for reviewing and coordinating project accounts for expenditures made by the implementing agencies and would compile and submit these to IDA at the required time. Assurances were obtained that: (i) project implementing agencies will have their accounts and financial statements for each fiscal year audited, in accordance with appropriate auditing principles consistently applied, by independent auditors acceptable to IDA; and (ii) the audits and accounts will be furnished to IDA no later than nine months after the end of each agencies' financial year.

G. Monitoring and Evaluation

3.20 BMRDA will prepare monthly status reports, including recommendations for corrective actions, for monthly reviews and action by the Technical Committee (para 4.03). BMRDA's status report would be derived from information, maintained by implementing agencies and compiled into monthly reports submitted to BMRDA. The agencies' reports would include comparisons of targeted and actual: (i) physical and financial progress; (ii) letting of contracts; and (iii) plot sales and occupation, tenure agreements concluded with households in SUP neighborhoods, monthly and cumulative recoveries of improvement, utilities and maintenance charges from beneficiaries and the value, number and recovery of home improvement and expansion loans concluded. Urgent major policy and project implementation issues identified in the Technical Committee would be raised on an ad hoc basis by BMRDA with the BMRDA Executive Committee for resolution. BMRDA would prepare quarterly progress reports on the progress of the project and an Annual Report on the progress of the ALIS program and submit these reports to IDA and to GOM. It would also review through contacts with representatives of private developers, housing finance institutions and building material suppliers the availability of materials and finances required for ALIS/BUDP and develop appropriate strategies to ensure the timely supply of these inputs. Assurances were obtained that BMRDA would: (i) prepare and furnish to IDA not later than December 31 each year an annual report on the progress of the Affordable Low Income Shelter Program (ALIS) for that year, together with proposals for actions required to be taken to meet the targets for the Program for the following year; and (ii) review every six months the availability of materials and financial requirements for the ALIS program.

H. Supervision

3.21 Because of the size and number of agencies involved in the project, about 175 staff weeks of IDA supervision would be required over the six and one-half year project implementation period. However, one function of BMRDA as coordinating agency will be to undertake project monitoring and supervision which, if fully effective, could enable IDA supervision to be reduced to about 130 staff-weeks, which is the current average for urban projects in South Asia.

IV. MANAGEMENT, ORGANIZATION, AND FINANCE

A. Program and Project Management

4.01 An important objective of the Project and the ALIS program is to improve GOM's long-term planning and budgeting capability for land servicing and shelter in the BMR. As part of the ALIS Program, GOM is establishing a process for planning, coordination, and progress evaluation for the shelter sector. In the framework of GOM's Five-Year Plan periods, this process is intended to produce annual and medium-term planning perspectives and annual progress evaluations to feed into GOM's regular annual and five-year planning and budgeting system. Key elements in this process were the creation of an inter-departmental, inter-agency coordinating committee (APEX) by GOM, for preparing ALIS/BUDP and the strengthening of BMRDA's planning capability (para 4.04). During project preparation, APEX met to resolve major policy and project preparation issues and established the means for coordinating project activities. APEX functions were transferred in July 1983 to the restructured BMRDA Executive Committee.

4.02 The project would be mainly implemented by MHADA, CIDCO, BMRDA, BMC, TMC, KMC and NBMC, whose tasks are indicated in Chapter II and outlined in Chart 4.1 and whose organization and past performance are described below and in Annex 15.

B. BMRDA

4.03 BMRDA was established in 1973 to plan development in the BMR. However, for a variety of reasons (see Annex 15), including its inappropriate internal organization, BMRDA did not fulfill the role of a metropolitan-wide planning authority. To rectify this situation and make BMRDA a more effective planning authority, GOM reorganized BMRDA in July 1983, reducing the number of members from 42 to 17, merging the former standing and Executive Committees into a single Executive Committee, abolishing the three sectoral Boards and strengthening the Planning Division. The reorganization establishes a clear line of responsibility for BMRDA's functions, from the Minister of Urban Development and the Metropolitan Authority, to the Executive Committee and the new functional divisions of BMRDA. In particular, BMRDA's planning capability has been increased with the addition of staff for financial and economic analysis and by the addition of staff from the former Housing and Ecology Board after BMRDA reorganization. The proposed project presents an opportunity, because of its size and breadth of impact, to catalyze further improvements in BMRDA's planning capability.

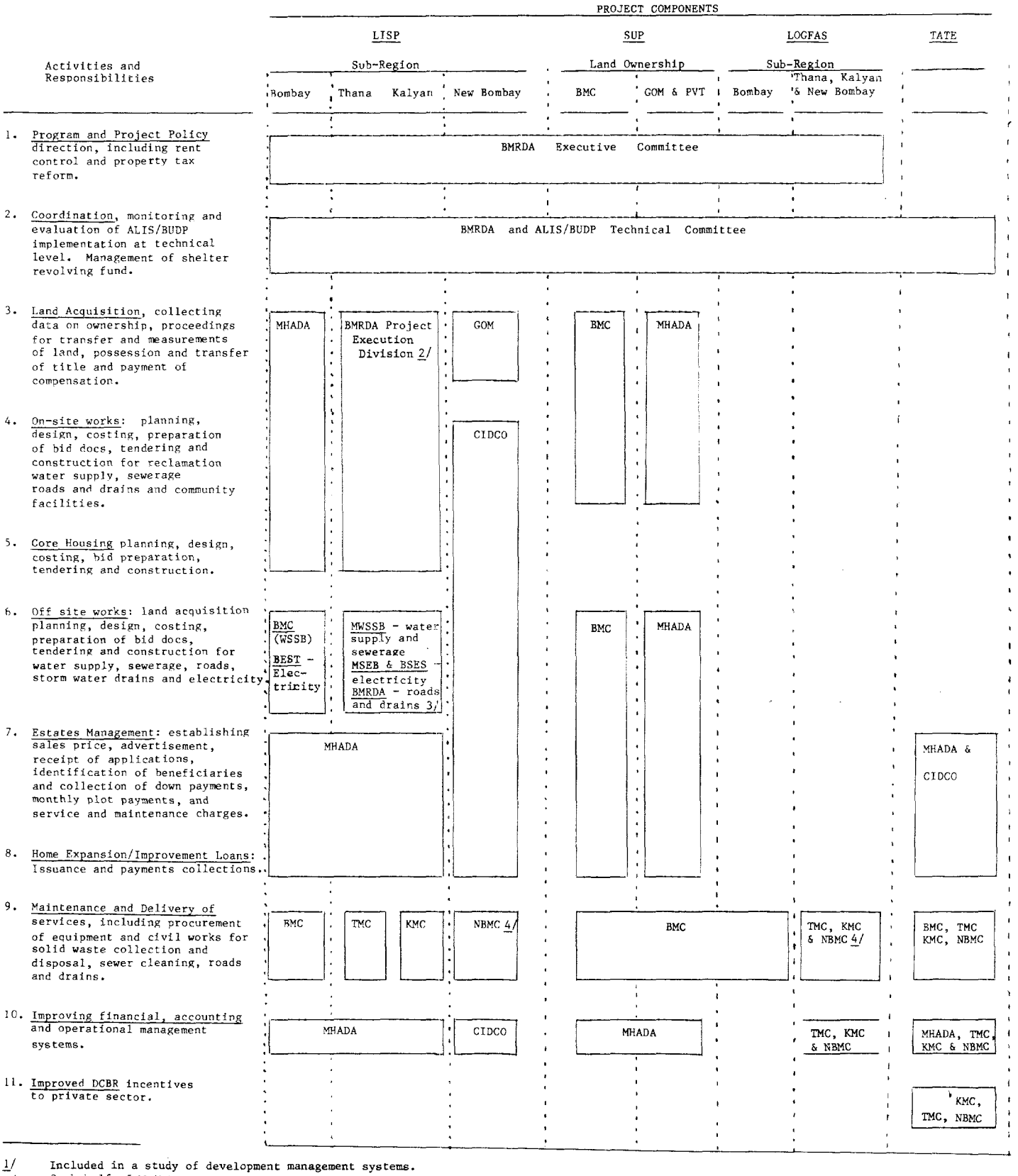
4.04 BMRDA has been coordinating the preparation of the ALIS program and the project since 1981. GOM officially designated BMRDA as the coordinating agency for BUDP in October 1982. The BMRDA Executive Committee, chaired by the Chief Secretary, GOM, will be responsible for ALIS/BUDP policy direction. To strengthen BMRDA for project implementation, GOM set up a Technical Committee (TC), with the BMRDA Metropolitan Commissioner as Chairman, to be responsible for the day-to-day coordination of the activities of the various agencies involved in the project (Chart 4.1). The Chief of BMRDA's Planning Division is the TC Member Secretary and its members are the officers chiefly responsible for project implementation, including the Chief Engineers of

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

CHART 4.1: ORGANIZATION FOR PROGRAM AND PROJECT COORDINATION AND IMPLEMENTATION

CHART 4.1



1/ Included in a study of development management systems.
2/ On behalf of MHADA.
3/ All agencies on behalf of TMC and KMC.
4/ CIDCO and MWSSB until NBMC is established.

MHADA, BMRDA's Execution Division, CIDCO and BMC and other local government departments. Under the project, funds would be provided for expert assistance to the TC in overall project management, including monitoring and evaluation of physical and financial progress and the extent to which the broader financial, social and economic objectives of ALIS/BUDP are being achieved.

C. Maharashtra Housing and Area Development Authority (MHADA)

4.05 MHADA, which is an agency of GOM operating throughout the State through Regional Boards, would be directly responsible for implementing about 66% (Rs 168 crores) of the proposed project, consisting of about 68,000 sites and services plots out of a total of about 85,000 plots (the remaining plots would be implemented by CIDCO (with possibly the assistance of BMRDA's Execution Division) MHADA would also be responsible for the upgrading of neighborhoods containing about 80,000 households (BMC would be responsible for upgrading neighborhoods containing the remaining 20,000 households). The project will require a significant increase in MHADA's implementing capacity, for which provision is made under the project as described below.

Organization and Staffing

4.06 Recognizing the new approach to shelter provision embodied in BUDP, MHADA is establishing a separate wing to implement the project rather than use its conventional executing agency in the BMR, the BHADB (Annex 15, para 6). The intention is that the new wing should develop an expertise in the efficient implementation of low income shelter projects, which would then be transferred to the regional Boards. An executive order of July 1983 created a BUDP implementation wing in MHADA with, initially, some 200 positions under an assistant Vice President, who would be solely responsible for BUDP activities (Chart 4). The build-up of staff for the new wing would however, be undertaken over a period of about two years, as the BUDP program gathers momentum. Initially, some of BHADB's existing engineering staff, who have been preparing BUDP, would switch from the tenement construction program, which is already being run down, to BUDP programs. In order to ensure that MHADA's capacity to undertake BUDP is not exceeded, and that BHADB's activities contribute to ALIS program objectives, assurances were obtained that MHADA would: (i) limit new investments in housing schemes (excluding repairs, reconstruction and slum improvements) outside the project, to be carried out through Bombay Housing and Area Development Board, to Rs 100,000,000 per year during the peak period of the implementation of the project, and the layouts, standards and superstructure provided in any new schemes undertaken by the Board outside the project would be based substantially on the building and development control regulations prescribed for land infrastructure servicing schemes under the project; and (ii) design housing schemes other than those included in the project (excluding schemes executed on deposit) to: (a) minimize the minimize the average cost per household for land development and housing construction; and (b) maximize the percentage of households with incomes at or below the absolute poverty level in Bombay (estimated to be about Rs 880 per household per month in 1983 prices) in the range of 55% to 75% of all beneficiary households.

4.07 The creation of the new BUDP wing, including Administration, Estate Management, and Finance Sections, will also require recruitment of some

additional staff for later project years, and consultants (para 4.11) would determine the precise requirements. For the most part, this is not expected to present a problem, since staff with the necessary experience and qualifications are readily available within the Bombay area. However, in the case of the Finance Wing, difficulties have been experienced in the past in recruiting qualified staff and MHADA is reviewing means of overcoming this bottleneck, through revision of pay scales, and computerization of accounting systems. A Community Development Wing is being established to assist in implementation of the SUP component and will be built-up to a staff of some 200 persons during project implementation. A small legal wing would also be created to support the assistance already provided by MHADA's legal department.

Financial Position

4.08 MHADA's housing programs are mainly financed by HUDCO and GOM while housing repairs and reconstruction works are funded by GOM and BMC statutory contributions and GOM grants. Slum improvement work is funded by GOM and BMC. Planning and budgeting is on a year to year basis and MHADA budgets are subject to review, modification and sanction by GOM. For the project, MHADA's planning and budgeting of shelter investment in the BMR would be on a five year basis. (Forecast financial statements for MHADA's operations in the BMR are shown in Annex 16).

4.09 Among the financial management problems experienced by MHADA are: excessive overhead costs due to the housing investment program being too small in relation to staff employed; ineffective control over estates revenue accounts, because the value of completed works allotted to beneficiaries on hire purchase are not transferred from construction divisions to the estates management division; substantial arrears in rents, due to cumbersome procedures and political moratoria on rent payments; delays in realizing revenues (and liquidity problems) from substantially-completed projects due to late completion of utilities provided by other organizations; and losses on MHADA expenditure on construction and on maintenance of rental units (particularly in reconstructed chawls owned by MHADA). In an effort to resolve some of these problems, MHADA has recently sold a large part of its rental units.

4.10 In order to strengthen the MHADA project wing for BUDP and to improve the performance of MHADA's regional Boards, particularly in relation to the problems described above, funds would be provided under the project for consultants to assist MHADA to develop its organization, management and financial systems during 1983/84 and 1984/85. Consultants have been selected and would be appointed in January 1985.

D. The City and Industrial Development Corporation (CIDCO)

4.11 CIDCO, which is a public company wholly owned by GOM, operates throughout the States and was designated in 1971 as the new town development authority for New Bombay. It would be directly responsible for implementing about 12% (Rs 34 crores) of the proposed project, consisting of about 20,000 sites and services plots.

Financial Operations

4.12 CIDCO develops land acquired by GOM under the Land Acquisition Act. GOM expenditures on land acquisition are treated as equity in CIDCO. Financing for development was initially provided by GOM loans but is now provided mainly from deposits and sales to beneficiaries and loans from HUDCO. All costs, including both on-site and off-site infrastructure, management and interest expense, are recovered from beneficiaries, with commercial and high income residential developments being sold at market prices to cross subsidize LIG and EWS beneficiaries. CIDCO also provides and maintains services in its developments, since there is as yet no municipal corporation. Funds for the maintenance and the delivery of services are provided by beneficiaries as part of the monthly payments to CIDCO. Because CIDCO has no general powers of taxation, it cannot be expected to obtain sufficient resources for adequate municipal services as New Bombay expands. A New Bombay Municipal Corporation would be created to provide these services (para 4.21).

4.13 CIDCO would maintain separate project accounts for BUDP which would be audited by independent auditors acceptable to IDA. The annual accounts of CIDCO are audited by independent auditors under the Companies Act. Forecast financial statements for CIDCO for the period of project implementation up to 1989/90 are shown in Annex 17.

Organization and Staffing

4.14 The plots produced by CIDCO under BUDP would amount to about 40% of CIDCO's total annual unit production in New Bombay, but only about 18% of CIDCO's projected total annual investment in shelter in New Bombay. CIDCO has a technically qualified team of experienced personnel which will be capable of implementing the 20,000 plot sites and services component to be carried out by CIDCO under the project with only minor additions to engineering staff. However, CIDCO will have to recruit additional staff for its estates transactions division, which will need to deal with nearly twice as many beneficiaries as are currently processed annually. Under the project technical assistance funds are provided for consultants to assist CIDCO to improve its estates management operations. (Chart 5 and Annex 15, para 8 provide information on CIDCO's organization).

E. Bombay Municipal Corporation

4.15 The Bombay Municipal Corporation (BMC), established in 1888, is the largest Municipal Corporation in India, and among the largest local governments in the world. It administers services to some 8 million persons (Map 17583). Under the proposed project, BMC would be responsible for providing off-site infrastructure for the LISP and SUP components in the BMC area. BMC would also implement part of the LOGFAS component which falls within the BMC area, mainly consisting of improvements in solid waste collection and disposal to be financed under the project (para 2.29) and would design and implement improvements under the SUP component for about 20,000 slum households who live on BMC owned land. (Chart 6 and Annex 15, paras 10-13 provide information on BMC's organization). Important policy objectives of the project, on which there has already been noteworthy progress, would be to: (i) effect a significant increase in BMC's revenue from property taxes, through changes in rent control regulations and through delinking

property values from rent control for assessment of property taxes (para 2.07); and (ii) to ensure that BMC (and other Implementing Agencies) have sufficient revenues to provide for adequate maintenance and delivery of services in areas benefitted by the project. Assurances were obtained at negotiations that GOM would cause the Implementing Agencies to provide each year sufficient budgetary provisions for adequate services and maintenance in areas benefitted by the project.

Financial Position

4.16 BMC's income and expenditure on revenue account, excluding the self-contained activities of BEST and WSSD, is as follows:

	75/76 (Actual)		80/81 (Actual)		82/83 (Actual)		83/84 (Actual)		84/85 (Budget)	
Income	Rs Crore	%	Rs Crore	%	Rs Crore	%	Rs Crore	%	Rs Crore	%
Octroi	28.1	36	69.1	46	104.1	54	147.3	59	223.7	67
Property Tax	24.5	31	33.9	23	41.3	21	42.7	17	42.5	13
Other	26.4	33	47.1	31	47.6	25	60.7	24	66.1	20
TOTAL	79.0	100	150.1	100	193.0	100	250.7	100	332.3	100
Expenditures:										
Public Health & Medical Servs.	23.8	28	40.7	28	52.2	27	59.7	26	78.5	24
Education	16.6	19	26.9	18	38.6	17	42.8	19	60.1	19
Traffic Operatns.	9.9	12	19.8	13	28.6	14	33.0	14	35.9	11
Solid Waste Collection	8.8	10	17.5	12	23.2	12	27.0	12	39.6	12
Slum Improvement & Maintenance	7.7	9	13.1	9	13.5	8	15.0	7	22.4	7
Miscellaneous	18.5	22	29.6	20	40.6	22	51.2	22	85.1	27
TOTAL	85.3	100	147.6	100	196.7	100	228.7	100	321.6	100
Surplus (Deficit)	(6.3)		2.5		(3.7)		22.0		10.6	

4.17 The most striking feature is the buoyancy of Octroi revenues which quadrupled over the past 7 years and increased at an even higher rate since 1983/84, due to basing the tax on value rather than quantity. Property tax, on the other hand, has been relatively static, held back by rent control restriction. The implementation of policy proposals under the project, would approximately double revenue from the property tax on existing properties thus providing the necessary funds not only for service and maintenance activities, both in project and non-project urban neighborhoods.

F. Other Municipal Corporations

Thana Municipal Corporation (TMC)

4.18 The newly-formed TMC is not yet geared to providing engineering and other services and maintenance in its area of jurisdiction. It relies on the

existing inadequate facilities, organization, staff and accounting systems of the former Thana Municipality and other local governments taken over. Due largely to the introduction of octroi tax, on becoming a Municipal Corporation TMC obtained relatively high annual per capita revenues (Rs 400) in its first year of operation. But, compared to the old Thana Municipality, it also has expanded responsibilities in a much enlarged service area is faced with a large backlog of service needs and must meet the new annual needs of a population growing at 5% annually.

4.19 TMC would be responsible for maintaining on-site infrastructure and delivering environmental services to about 11,000 households in LISP sites to be located in the TMC. TMC would receive technical assistance under the project to improve the delivery and maintenance of municipal services and to establish efficient management and financial systems and also to reorient the objectives of the Development Control and Building Regulations to encourage private land servicing for low income families, as part of the municipal process of giving development permits. Consultants had been selected by December 1984 and are expected to be appointed in January 1985. The project would also include funds for experts to assist TMC to manage the technical assistance program and supervise implementation of the agreed findings.

Kalyan Municipal Corporation

4.20 Of even more recent origin than TMC is the Kalyan Municipal Corporation (KMC) created in September 1983. Being in a less industrialized area than Thana, KMC's revenues per capita may be less than those of TMC. KMC's responsibilities under the project would be similar to TMC and it would also receive assistance, similar to that provided for TMC, to improve municipal services and to establish efficient management systems.

New Bombay Municipal Corporation (NBMC)

4.21 The legal framework of the NBMC has been established (with the issuance on November 18, 1983 of the notification for the creation of NBMC. It is envisaged that NBMC would be operating by 1986/87 (para 4.12). NBMC would also receive assistance, similar to that provided for TMC, to improve municipal services and establish efficient management systems.

G. Financial Covenants for Executing Agencies

4.22 Each of the executing agencies would be required to submit audited financial statements to IDA for project related expenditures. In addition, both MHADA and CIDCO would also provide audited statements on the operation and maintenance of project components. As part of these agencies' programs to improve their efficiency, IDA obtained assurances that MHADA and CIDCO would aim to achieve the following performance targets by 1987/88: (i) design, supervision of construction and management costs, including cost of support services (administration, finance and accounts) but exclusive of estate management and interest charges, not to exceed 12% of annual construction costs; (ii) accounts receivable for hire purchase and rental properties not to exceed an average of 3 months billing; and (iii) estate management costs not to exceed 4% of rentals and installments receivable.

V. COST RECOVERY, PRICING, AFFORDABILITY AND RESOURCE MOBILIZATION

A. Cost Recovery

5.01 About 75% of total project costs, 98% of LISP costs and 94% of SUP costs would be directly recovered from beneficiaries through charges for land, infrastructure and loans for home improvements and expansion, in the form of outright cash down payments and monthly installments on loans to beneficiaries (at 12% over 20 years). BMC, TMC and KMC, and public utilities would recover an additional 24% of total project costs for off-site infrastructure and works and equipment for environmental services through property taxes, other local government charges and through user charges at levels sufficient to service the project onlending rate of 8.5%. About 1% of project costs, mainly for technical assistance and training, would not be recovered (Table 3.2).

5.02 The 12% per annum interest rates which would be charged beneficiaries for loans for plots, infrastructure improvements and home expansion and improvement loans are higher than interest rates of 5-7% charged to low income households by MHADA in its conventional HUDCO-financed schemes, are close to market rates and are expected to be positive in real terms, since the annual rate of inflation and corresponding average project price contingencies over the project period is estimated to range from 6 to 9%.

B. Pricing

LISP

5.03 Various plot types would be priced according to their size, neighborhood and regional location and availability of amenities. The low prices charged for small plots designated for lower income households (Rs 250-875 per month) reflect the lower costs of servicing small plots, the lower market value of their location in the overall site plan and their limited potential for housing construction. Larger residential plots, including plots for apartments, which are more costly to service, in better locations and have a larger potential for housing construction, would be marketed to middle and higher income households (above Rs 1,250 monthly) at prices which exceed average development costs/net m2 of saleable area and approximate market values (Table 5.1). Plots for service industries would also be priced at market value, while those for commercial activities would be auctioned. Plots for community service facilities would be sold to government agencies, or to private agencies in the case of schools, at prices about equal to the average site development cost (Annexes 18 and 19).

Table 5.1: LISP PRICING, CHARGES AND AFFORDABILITY (AIROLI NODE) 1/

AFFORDABILITY

Plot type	A1	A2	A3	B	C	D	Co-op
Monthly income/hsld(Rs)	300	500	725	800	1,250	2,500	3,000
Percent of plots	16.2	25.6	18.6	13.1	9.4	4.7	12.5
Number of plots	3,710	5,873	4,264	2,999	2,156	1,086	2,872
Plot size (m 2)	21	24.5	28	40	60	100	50
Sale price (Rs per net m2)	45	60	90	180	240	315	240
Cost of Core house (Rs)	2,519	4,468	7,056	-	-	-	-
TOTAL CAPITAL/HSLD (Rs)	3,464	5,938	9,576	7,200	14,400	32,130	12,000
Down payment (Rs)	350	500	1000	20	20	20	sold
Yearly interest rate (%)	12	12	12	12	12	12	for
Recovery period (years)	20	20	20	20	20	20	cash
MONTHLY PAYMENT (Rs)	34.3	59.9	94.4	63.4	126.9	283.0	0.0
% OF MONTHLY INCOME	11.4	12.0	13.0	7.9	10.2	11.3	0.0
Monthly water charges (Rs)	5	5	5	5	10	10	10
Other mainten.charges (Rs)	7.5	7.5	7.5	10	10	10	10
TOTAL MONTHLY PAYMNT (Rs)	46.8	72.4	106.9	78.4	146.9	303.0	20.0
Home Expansion loan (Rs)	1,000	2,000	3,000	-	-	-	-
Monthly payment (Rs)	11.0	22.0	33.0	0.0	0.0	0.0	0.0
TOTAL PAYMT WTH LOAN (Rs)	57.8	94.4	140.0	78.4	146.9	303.0	20.0
% of monthly income	19.3	18.9	19.3	9.8	11.8	12.1	0.7

1/ All income prices, loan amounts and charges in this table are for September 1983. Project base costs in July 1984 prices are estimated to be 4% higher and are not relevant to the purposes of this table.

5.04 In all schemes, the on-site costs of land, site preparation infrastructure and shelter expansion loans would be recovered from beneficiaries at an interest rate of 12%. Off-site infrastructure costs for roads and drains for schemes in Bombay, Thana, Kalyan and New Bombay would be recovered by BMC, TMC, KMC and NBMC from general revenues, including the property tax, and by BMC and GOM public utilities from user charges for water, sewerage and electricity.

5.05 In addition to the on-site costs mentioned above, in CIDCO's Airoli scheme the costs of all off-site infrastructure and of community facilities required by a completely new city of about 90,000 population erected in a green field site, would be directly recovered in the price charged to beneficiaries for plots (para 2.13). The size of the scheme, low land acquisition and preparation costs, performance-related reductions in design

and service standards, efficient site planning and market sales potential are the major factors which permit direct recovery of off-site costs, while fully preserving other major project objectives.

5.06 The selection procedures would restrict applications for specific residential plot types to households whose total income falls within specific income categories. Residential plots would be sold with 60 year renewable leases. All low income plots (Rs 880 monthly household income and under) would be purchased with lump sum downpayments equal to about 10% of the sales price. All other residential plots would be sold with downpayments of 15 to 20% of the sales price. The balance of the purchase price for residential plots would be repaid at not less than 12% annual interest over not more than 20 years. Purchasers of plots for markets, small industry and commercial facilities would pay the full price of the plot up front.

5.07 Separate flat rate monthly water and sewerage charges would be levied on each household on an individual plot ranging from Rs 5 monthly for the lowest income household on the smallest plot to Rs 10 monthly for the highest income household on the largest plot. A metered charge would be levied on households in apartments.

5.08 An additional, separate, flat rate monthly charge for maintenance of infrastructure and environmental services provided in neighborhoods by local government would be charged each household initially in lieu of property tax. The charge would range from Rs 3 monthly for the lowest income households to Rs 10 monthly for higher income households. Leases would provide for periodic review and adjustment of both water and sewerage and maintenance charges in accordance with changes in local government costs. Local government would convert the charge for maintenance into the property tax after houses have been fully constructed on plots. Households in cooperative apartments would pay for local government maintenance and environmental services through the property tax.

5.09 Optional shelter expansion loans ranging from Rs 1,000 to Rs 3,000 depending on household income would be provided for low income purchasers of plots. These loans would carry an annual interest rate of not less than 12% over not more than 20 years. Loans would not be provided under the project for other categories of beneficiaries. They would raise house construction finance from cooperative societies, employers, the HDFC and their own private resources. Assurances were obtained that: (i) GOM would aim to recover fully all chargeable costs and target beneficiary selection criteria, and terms and conditions of sales and leases for residential, commercial, small industry and other plots, and for home improvement loans shall be as agreed upon among IDA, GOM and GOI; (ii) onlending terms to beneficiaries for serviced plots and housing loans shall include, inter alia, that interest shall be charged at not less than 12% per annum.

SUP

5.10 A pricing scheme would be employed, which would recover all overall costs of land and on-site improvements from all beneficiaries. Individual households and small business would not necessarily pay the actual costs of improvements in their neighborhood and prices established for individual beneficiaries would entail payments, which would be well within the amounts affordable in relation to beneficiaries' incomes.

5.11 The average price charged for a plot in each of 4 zones of BMC (Map 1) would vary directly with: (i) zonal location value; (ii) plot size; (iii) plot location within its neighborhood; and (iv) type of land use. For example the indicative price of a small, poorly located residential plot in the most valuable inner city zone (zone 1) would be Rs 2,000, whereas the price of a similar plot in the least valuable suburban zone 4 would be Rs 1,000 (Table 5.2 and Annex 20). It has been established that there is generally a direct relationship between location, plot size and beneficiary income: the poorest beneficiaries are in the smallest plots in the least desirable neighborhood location.

Table 5.2: SUP PRICING, CHARGES AND AFFORDABILITY 1/

	Zone 1			Zone 4		
Plot Size	Small	Medium	Large	Small	Medium	Large
Monthly income/hsld (Rs)	325	525	825	325	525	825
Percent of plots 2/	0.3	0.7	0.2	4.2	10.5	2.8
Number of plots	288	720	192	4200	10500	2800
Plot size (m2)	16	24	32	12	16	21
Sale price (Rs per net m2)	125.0	145.8	156.3	83.3	93.8	119.1
TOTAL CAPITAL/HSLD (Rs)	2,000	3,500	5,000	1,000	1,500	2,500
Down payment (%)	10	10	10	10	10	10
Yearly interest rate (%)	12	12	12	12	12	12
Recovery period (years)	20	20	20	20	20	20
MONTHLY PAYMENT (Rs)	19.8	34.7	49.6	9.9	14.9	24.8
% OF MONTHLY INCOME	6.1	6.7	6.0	3.0	2.8	3.0
Monthly water charges (Rs)	2.4	2.4	2.4	2.4	2.4	2.4
Monthly service charge (Rs)	3.0	5.0	10.0	3.0	5.0	10.0
Monthly society fee (Rs)	7.5	10	15	7.5	10	15
Monthly lease rent (Rs)	1	1	1	1	1	1
TOTAL MONTHLY PAYMNT. (Rs)	33.7	53.0	77.9	23.8	33.2	53.1
Building loan amount (Rs)	1,000	1,400	2,700	1,800	3,200	5,000
Monthly payment (Rs)	11.0	15.4	29.7	19.8	35.2	55.1
TOTAL PAYMT WTH LOAN (Rs)	44.7	68.5	107.6	43.6	68.5	108.2
% of monthly income	13.8	13.0	13.0	13.4	13.0	13.1

1/ All income prices, loan amounts and charges in this table are for September 1983. Project base costs in July 1984 prices are estimated to be 4% higher and are not relevant to the purposes of this table.

2/ The percentage of plots is related to the total number of households to be upgraded in the entire program. Only six categories out of the 32 combinations of plot size, slum type and geographical zone are presented here. (See Annex 20 for details). In addition, some small businesses would also benefit from upgrading and would be charged an affordable rate commensurate with business income.

5.12 Plots would be sold with 60 year renewable leaseholds. Downpayments of 10% of the sales price would be required. The balance of the purchase price would be repaid at not less than 12% p.a. over not more than 20 years. In addition, neighborhood cooperatives of households would pay a monthly flat rate water charge per household of about Rs 2.4 and a maintenance and service charge ranging from Rs 3 to Rs 10, depending on plot size and location.

Households would also pay a service charge to neighborhood cooperatives for the maintenance of minor roads and drains which would not be the local governments' responsibility.

5.13 Optional shelter improvement loans provided under the Project, varying from Rs 1,000 to Rs 5,000 per household, depending on income and zonal and neighborhood location, would carry an annual interest rate of not less than 12% over not more than 20 years. The total burden of land improvement and service charges (and home improvement loans) has been designed to be affordable, with full cost recovery, to all beneficiaries. Assurances were obtained that: (i) GOM will aim to recover all chargeable costs and terms and conditions of leases and those of home improvement loans, and user charges for maintenance and utilities shall be as agreed among IDA, GOM and GOI; and (ii) on-lending terms to beneficiaries for serviced plots, home improvement loans and slum upgrading shall include, inter alia, that interest shall be charged at not less than 12% per annum.

C. Affordability

5.14 About 45-55% of plots in LISP schemes would be affordable to very low income families in the 10th to 35th percentile of the BMR income distribution. Another 10-20% of plots would be affordable to low income families in the 35th to 50th percentile of the income distribution at or below the Bombay absolute poverty level. About 65% of the households benefitting from the SUP component would be at or below the 50th percentile of the BMR income distribution and the Bombay poverty line. The basic monthly charge for the lowest priced plot would be about Rs 10 monthly (or Rs 24 monthly when water and maintenance charges are included) amounting to about 3% of the income of the lowest income household in the target income range for the plot (Chart 1.1) and 13% of monthly income if all other charges for services and a home improvement loan are included.

5.15 Basic monthly charges to households in SUP areas have been designed to be affordable to beneficiaries and would range from Rs 34 to Rs 78 per plot. These charges which include water and maintenance charges, and charges for optional home improvement loans, would be about 7-10% of the lowest household income which would appear well within the limit of affordability. Households in the lowest income groups in other IDA-financed Indian projects are spending 25-30% of household income on housing. However, implementing agencies would monitor the demand for low-income plots in the first phase schemes and subsequent investment by beneficiaries. If the proposed pricing structure appears to strain beneficiaries' capacity to pay, prices might be reduced through the inclusion of a larger proportion of high value, revenue-generating land uses in successively later LISP schemes. Revenues from higher prices on non-residential plots in SUP schemes might also prove sufficient over time to allow reductions in prices charged low income residential plots, while still achieving full cost recovery. About 65% of 200,000 households directly benefitting from the LISP and SUP components of the project would be in the income group below Rs 875/mo. at or below the 50th percentile of the BMR income distribution and poverty level.

Resource Mobilization

5.16 The costs of off-site infrastructure, equipment and operating expenses for environmental services and maintenance would be recovered partly from maintenance fees charged directly to beneficiaries; the general revenues of BMC, TMC, KMC and NBMC; and water supply and sewerage utilities' user charges. An increase in BMC's revenues was achieved in 1983 through municipal tax revision (para 2.28 and 4.17). Municipal revenue collections in the Thana, Kalyan and New Bombay areas would be substantially increased through the creation of the new municipal corporations, TMC, KMC and NBMC and strengthening of their staff, financial management and accounts, through technical assistance and training provided under the project (paras 4.18-4.21).

VI. PROJECT JUSTIFICATION

Benefits

6.01 The main benefits of the project would be: (a) to support an unprecedented three-fold increase in the annual supply of affordable, BMR, shelter units, particularly for low income families, and thereby reduce by 1990 the number of households in illegal and/or environmentally unsound shelter from 1-1.2 million (50-60% of the population) to 0.7-1.0 million (33-43% of the population); (b) to substantially improve local government financial and administrative capacity to deliver and maintain services, particularly for low income families and small businesses in the jurisdictions of the new municipal corporations, TMC, KMC and NBMC; (c) to strengthen state and local government institutions for planning, coordinating and evaluating projects, programs and policies and for replicating the achievements, particularly in the heretofore neglected and problem-plagued land development and shelter sector; (d) to demonstrate that more efficient and equitable land use planning and pricing policies and more appropriate design standards, incorporated in the DCBR, can result in full public sector shelter cost recovery, a major reduction in the public and private costs of shelter investment and significant investment of private capital in low cost, low income housing; and (e) to direct a larger proportion of public and private investment in land servicing and shelter construction into low cost units for low income families, while still providing large numbers of plots for higher income housing, community facilities, commercial and small industry use.

6.02 BMRDA's structure, staffing, and responsibilities, and status as a regional institution for planning, coordinating and evaluating BMR sectoral programs and linking them to the annual budget and five year plan cycles has already been strengthened during the preparation of ALIS/BUDP. BMRDA's capacity to perform these functions would be further strengthened during the implementation of ALIS/BUDP.

6.03 The project would involve reforms in housing policies and markets affecting: the costs of land and infrastructure servicing and housing construction; the supply of land for servicing and shelter; and private investment in low income shelter. It has already helped to increase the priority being given by GOI, GOM and BMC to reforms in the rent control and property tax Acts.

6.04 The project would substantially improve the shelter and environmental situation of about 100,000 households directly benefitted by the LISP component, of whom about 65% are below the estimated Bombay poverty threshold. These households would also be provided with securely-tenured shelter, basic environmental services and primary and secondary education and health care facilities. The SUP and LOGFAS component would provide basic infrastructure, environmental services, improved housing and - for the first time in Bombay - secure, long term, legal plot tenure to an additional 100,000 households, about 65% of whom fall below the Bombay poverty threshold. In addition, about 620,000 households in BMC's island city wards, about 50% of whom are at or below the Bombay poverty level, would be provided with better solid waste collection and disposal services.

6.05 The average cost per household would be about Rs 19,625 (US$350/capita) in the LISP component and Rs 5,100 (US$84/capita) in the SUP component. Sixty three percent of total project costs would directly benefit about 650,000 people with incomes below the urban poverty line and the weighted average project expenditure per poor urban household would be US$1220 (US$248/capita) (Annex 21). A substantial amount of private individual investment in housing would be generated and/or diverted to project beneficiaries averaging about Rs 14,000 (US$1,275) per LISP household and Rs 7,000 (US$635) per SUP household. The total individual private investment in housing on LISP and SUP plots is estimated to be more than the whole public investment in these components.

6.06 An impressive amount of employment, largely for unskilled labor, would be directly generated by the project. Estimated at about one person year per LISP plot, the LISP and SUP components would create 20,000 and 6,000 jobs each for 4-5 years. An equal additional number of jobs would be created by housing construction works privately funded outside the project.

6.07 The additional property tax and maintenance fees generated from private and public investment in project properties could amount to Rs 69 crore annually by 1990. By comparison the BMC's current revenue from the property tax is about Rs 43 crore annually and collections in the former municipalities of Kalyan and Thana were negligible.

6.08 Without the ALIS Program and the project, the absolute number of households in illegal and/or environmentally unacceptable slums would grow from 1 million to as many as 1.5 million in 1990, scarce land would continue to be squandered in costly and inefficient layouts dictated by inappropriate DCBR, the average public cost of providing a shelter unit would be Rs 30,000-50,000 (US$2,730-5,000) instead of about Rs 8,500 (US$775), measurable targets for the shelter sector and identifiable means of achieving them would not be created, the large private investment in shelter would continue to be concentrated in a few expensive units for high income families.

Rate of Return

6.09 The average economic rate of return is estimated on the proto-type LISP and SUP sites to be 20.4% (17.9% and 31.0%, respectively). Economic benefits of the LISP component are the estimated rental value of serviced residential, institutional, industrial and commercial plots and, of the SUP component, the increase in rental values resulting from the project. The

costs, net of taxes, include shelter loans and all costs for land, infrastructure and community facilities. The rates of return for LISP sites in the various project areas are estimated to range from 13% in the more outlying Thana and Kalyan areas, to 18% in the Bombay Municipal area and 27% in New Bombay. Key factors determining these variations are differences in landfill costs (higher in Bombay, lower in New Bombay and Thana/Kalyan) and rental values (higher in Bombay, lower in Thana/Kalyan). The rates of return are also directly affected by site layouts and land use patterns and, for this reason, a flexible approach to land use planning has been adopted from the outset. Such an approach is particularly relevant to outlying sites where benefits may be lower and here variations in land use plans may be necessary for economic viability. A detailed analysis of each LISP site would be undertaken prior to implementation and again before marketing, aiming at achieving at least a 12% economic rate of return, for an overall average economic rate of return estimated at 18%.

6.10 Project risks are discussed below. The risk to which the rate of return is considered to be most sensitive is slippage in the realization of benefits relative to the timing of costs being incurred, although the likelihood of such an occurrence is considered low, given the high and inelastic demand for basic shelter services. A more likely event is that both costs and benefits may be delayed together in which case the rate of return is not significantly altered. To demonstrate sensitivity to the more extreme case, a one-year lag in benefits, with the timing of costs remaining the same, would reduce the average ERR from 20.4% to 16.6%. There is also a risk of cost overruns, but these can usually be offset by sales, price increases and design changes. Although their incomes are also likely to keep pace with increases in costs. Non-quantified benefits of the project due to improved environmental services and provisions for community facilities would possibly be reduced morbidity and mortality and increased productivity of families and workers. There would also be longer term benefits from institutional and financial improvements.

Risks

6.11 Drawing on the experience in shelter projects elsewhere in India and the Bank's experience with transport and water and sewerage projects in Bombay, project risks and measures taken to insure against them are as follows: (i) Land Availability for LISP. Inter-agency programming of land acquisition was begun over one and a half years ago. With about 70% of the land required by the project already in the ownership of project implementing agencies the supply of project land is reasonably secure; (ii) Implementation capacity of agencies. In order to reduce the design, contracting and construction load of MHADA, BMC would undertake 20% of the SUP component and BMRDA (on behalf of MHADA) and CIDCO would undertake about 50% of the LISP component. Retroactive financing is provided for LISP site preparation works that begin in November 1983. The contracting and supervision load in the LISP component of all agencies would be reduced by packaging civil works contracts. Detailed multi-agency schedules have been drawn up for all implementation activities, from land acquisition through the final home improvement loan stage. Technical assistance by consultants and training has been provided to support and strengthen MHADA and CIDCO management and systems, particularly for financial management and estates transactions; (iii) Cost recovery in the SUP component. MHADA have contacted households in SUP

neighborhoods (10,000 already sampled) to inform them of the program. Downpayments on the purchase of plots would be required at the time improvement works commence in a neighborhood. The issuance of home improvement loans would be contingent upon satisfactory payment of improvement charges by beneficiaries; (iv) Institutions for planning, coordination and evaluation of sectoral programs and project implementation. To minimize the risk of delays in one agency's activities on another agency's implementation of a project component, GOM has designated BMRDA as project coordinator, re-organized BMRDA to focus its efforts on planning, established an inter-agency Technical Committee, headed by BMRDA with support by expert assistance financed by the project, and designated the Executive Committee of BMRDA to be responsible for policy and project implementation issues. These arrangements have been working well during project preparation and the first year of project implementation. There is also a risk that the institutional basis for monitoring and evaluating the implementation of the broad ALIS program will be inadequate since the long-term planning of explicit ways and means for addressing the problems of the BMR shelter sector, in the form of the ALIS program, is a relatively novel concept. To offset this risk, BMRDA would prepare an annual report for the BMRDA Executive Committee on the status of the ALIS program, with recommendations for actions to maintain progress toward established annual targets. Also, through periodic contacts with representatives of private developers, housing finance institutions, and building material suppliers, the BMRDA would review the availability of material and financial requirements of ALIS/BUDP and develop strategies to ensure their timely supply. (v) Adequacy of housing construction finance. The private funds required from outside the project, for constructing housing and other buildings on project LISP sites would be 1 to 1.5 times the total public investment in the project. A shortage of housing construction finance could reduce revenues from sales of middle and higher income project plots, which have to produce a substantial proportion of project revenues. HDFC and MCHS resources would suffice to finance the construction of higher income housing and the project funds home expansion loans for the lowest income project households. However, there is some question as to whether HDFC, which is experiencing a strong demand for funds in other parts of India, would have sufficient funds to finance the small proportion of lower middle income housing to be built on project sites. To meet the potential demand for housing finance from this segment of the market, both GOI and GOM are considering the possibilities for strengthening housing finance institutions.

VII. AGREEMENTS REACHED AND RECOMMENDATIONS

7.01 During negotiations, the following principal assurances were obtained:

(a) Selection of sites for the land and infrastructure servicing program and the slum upgrading program and their plans, layouts, designs and standards shall be satisfactory to IDA (paras 2.12, 2.19 and 2.25);

(b) GOM will aim to implement about 10% of the slum upgrading with households located on privately owned land (para 2.23);

(c) The scope and time frame in respect of a program of municipal services and improvements in the development control and building regulations shall be implemented only after the recommendations of the consultants for the program have been jointly reviewed and agreed upon among GOI, GOM and IDA (para 2.31);

(d) BMRDA will establish a revolving fund to be credited with 45% of the principal amounts to be repaid by GOM by the implementing agencies, in repayment of amounts on-lent to them by GOM to implement the project; the funds shall be treated as a non-refundable loan and shall be used for financing similar programs in future (para 3.09).

(e) IDA will be provided the opportunity to review: (i) bidding documents and bid evaluations for civil works and equipment contracts valued at US$800,000 and US$300,000 or more respectively; and (ii) bid evaluations for civil works contracts valued at more than US$500,000 but less than US$800,000 (para 3.11 and 3.12);

(f) the qualifications, experience and terms and conditions and principles and procedures for employment of consultants and expert advisors shall be satisfactory to IDA (para 3.14);

(g) (i) project implementing agencies will have their accounts and financial statements for each fiscal year audited, in accordance with appropriate auditing principles consistently applied, by independent auditors acceptable to IDA; and (ii) the accounts and audits will be furnished to IDA no later than nine months after the end of each agencies' financial year (para 3.19);

(h) BMRDA shall: (i) prepare and furnish to IDA not later than December 31 each year an annual report on the progress of the Affordable Low Income Shelter Program for that year, together with proposals for actions required to be taken to meet the targets for the Program for the following year; and (ii) review every six months the availability of materials and financial requirements for the ALIS Program (para 3.20);

(i) MHADA shall (i) limit new investments in housing schemes (excluding repairs, reconstruction and slum improvements) outside the project to Rs 10 crore per year during the peak period of the implementation of the project and use layouts, standards and superstructure in any new schemes outside the project based substantially on the building and development conrol regulations prescribed for land infrastructure servicing schemes under the project; and (ii) design housing schemes outside the project (exluding schemes on deposit) to: (a) minimize the average

cost per household for land development and housing construction; and (b) maximize the percentage of households with incomes at or below the absolute Bombay poverty level in the range of 55% to 75% of all beneficiary households (para 4.06);

(j) MHADA and CIDCO will aim to achieve the following performance targets by fiscal year 1987/88: (a) design, supervision of construction and management costs, including support services, but excluding estate management and interest charges, not to exceed 12% of annual contruction costs; (b) accounts receivable for hire purchase and rental properties not to exceed an average of 3 months billing; and (c) estate management costs not to exceed 4% of rentals and installments receivable (para 4.22);

(k) GOM will aim, in respect to LISP (i) to recover fully all chargeable costs, and target beneficiary selection criteria and terms and conditions of sales and leases for residential, commercial, small industry and other plots, and for home improvement loans shall be as agreed among GOI, GOM and IDA; and (ii) onlending terms to beneficiaries for serviced plots and housing loans shall include inter alia that interest shall be charged at not less than 12% per annum (para 5.09);

(l) GOM will aim in respect of SUP: (i) to recover all chargeable costs and terms and conditions of leases and that home improvement loans, and user charges for maintenance and utilities shall be as agreed upon among GOI, GOM and IDA; and (ii) onlending terms to beneficiaries shall include, inter alia that interest shall be charged at not less than 12% per annum (para 5.13);

7.02 Retroactive financing of up to US$7.0 million would be provided for eligible expenditures incurred by the implementing agencies after January 1, 1984 for civil works, consulting services and expert assistance and training (para 3.18).

7.03 Conditions of effectiveness include the execution of subsidiary loan agreements between GOM and BMC and between GOM and CIDCO on terms and conditions acceptable to IDA.

7.04 On the basis of the above agreements, the proposed project would be suitable for an IDA credit of US$138.0 million to the Government of India.

INDIA
BOMBAY URBAN DEVELOPMENT PROJECT
LAND INFRASTRUCTURE SERVICING PROGRAM (LISP)
IMPLEMENTATION SCHEDULE

Chart 1

SITE NO.	LOCATION	HOUSEHOLDS	FISCAL YEAR 1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
	BMC									
1	CHARKOP I	15,420								
2	CHARKOP II	9,730								
3	VERSOVA	4,900								
4	BORIVALI	8,120								
5	MALAVANI	9,240								
6	Private Lands*	13,440								
	Sub-Total	60,850			12,170	15,210	15,210	12,170	6,090	
	NEW BOMBAY									
7	AIROLI I	4,740								
8	AIROLI II	6,310								
9	AIROLI III	7,140								
	Sub-Total	18,190				3,640	4,540	5,460	4,550	
	THANE									
10	CHITALSAR	4,060								
11	PANCHPAKPADI	2,800								
	Sub-Total	6,860				690	2,060	2,060	2,050	
	KALYAN									
12	KALYAN G-C	7,900								
13	KALYAN ADS	7,840								
	Sub-Total	14,840				1,490	4,450	4,450	4,450	
TOTAL HOUSEHOLD LEASES COMPLETED		**100,740**			**12,170**	**21,030**	**26,260**	**24,140**	**17,140**	

KEY:

- Site Preparation, including Planning, Design, Tendering and Landfill
- Planning, Design and Tendering
- Construction
- Completion of Lease Agreements and Occupation of Plots
- Agency House Loan Disbursement

Project Closing Sept. 1990

* Private Lands comprised of sites at Vikroli, Mulund, and Majiswade

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT
SLUM UPGRADATION PROGRAM (SUP)
IMPLEMENTATION SCHEDULE

Chart 2

FISCAL YEARS

LAND OWNERSHIP	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
SLUMS ON GOVERNMENT LAND 70%								
Total Leases Complete			7,000	21,000	21,000	14,000	7,000	
SLUMS ON PRIVATE LAND 10%								
Total Leases Complete			1,000	3,000	3,000	2,000	1,000	
SLUMS ON BMC LAND 20%								
Total Leases Complete			2,000	6,000	6,000	4,000	2,000	
HOUSEHOLD LEASES TOTAL 100,000			**10,000**	**30,000**	**30,000**	**20,000**	**10,000**	

KEY:

- Land Acquisition, Transfer, Planning, Tendering
- Construction
- Completion of Lease Agreements
- Agency Home Improvement Loan Disbursement

Project Closing ..... Sept. 1990

INDIA

ORGANIZATION STRUCTURE OF BOMBAY METROPOLITAN REGION DEVELOPMENT AUTHORITY
(July 1983)

BOMBAY METROPOLITAN REGION DEVELOPMENT AUTHORITY 1/

EXECUTIVE COMMITTEE 2/

METROPOLITAN COMMISSIONER

CHIEF (PLANNING DIVISION)

PERPS. PLAN.
SENIOR PLANNER (1)
PLAN-NER (1)

SHELTER
SENIOR PLANNER (1)
EX. ENGI-NEER (ENVR) (1)
PLAN-NER (1)
DY. PLANNER (1)

PROJECT APPRAISAL
SR. ECONO-MIST (1)
FINANCIAL ANALYST(1)
ECONOMIST (1)
DY. ECONOMIST (1)

INF.SYS.& STATISTICS
O.R. SPE-CIALIST (1)
STATIS-TICIAN (1)
DY. STATIS-TICIAN (4)

CHIEF (PROJECT EXE-CUTION DIV.)

DESIGN
SUP. ENGINEER (1)
EX. ENGI-NEER (10)
DY. ENGINEER (19)

PROJECT
SUP. ENGINEER (1)
EX. ENGINEER
DY. ENGINEER

PROJECT
SUP. ENGINEER (1)
EX. ENGINEER
DY. ENGINEER

FINANCIAL ADVISER

DY. METRO-POLITAN COMMISSIONER

CHIEF (TRANSPORT & COMMUNICATION DIVISION)

TRANS. PLANNING
SR.TRANS. PLANNER (1)
WORKS ADMIN-ISTRATOR (1)

TRAFFIC MANAGENT.
TRANS. PLAN-NER (1)

TRANS. ECONS.
SR. TRANS. ECONO-MIST (1)
STATIS-TICIAN (1)

BUTP
WORKS ADMIN-ISTRA-TOR (1)
DY. PLANNER (3)

CHIEF (TOWN & COUNTRY PLANNING DIV.)

BANDRA KURLA GROWTH CENTER
SR. PLANNER (1)
PLAN-NER (1)
DY. PLANNER (1)

DEV. CONTROL
SR. PLANNER (1)
AR-CHI-TECT (1)

PROJECT OFFICER (MARKET-ING) (1)

KALYAN COMPLEX
SENIOR PLANNER (1)
PLANNER (1)

1/ (i) Minister for Urban Development; (ii) Minister for Housing; (iii) Minister of State for Urban Development; (iv) Mayor of BMC; (v) Chairman, Standing Committee, BMC; (vi) Three Councillors of BMC; (vii) Two Members of the Maharashtra Legislative Assembly; (viii) One Member of the Maharashtra Legislative Council; (ix) Chief Secretary, GOM; (x) Municipal Commissioner, BMC; (xi) Secretary, Urban Development Department, GOM; (xii) Secretary, Housing Department, GOM; (xiii) Managing Director, CIDCO; (xiv) Metropolitan Commissioner, BMRDA. (Total - 17 members).

2/ (i) The Chief Secretary to Government; (ii) Metropolitan Commissioner, BMRDA; (iii) Secretary, Urban Development Department, GOM; (iv) Secretary, Housing Department, GOM; (v) Municipal Commissioner, BMC; (vi) Managing Director, CIDCO; (vii) Three experts from the Urban Planning and Development field.

Chart 3

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Organization of Maharashtra Housing & Area Development Authority (MHADA)

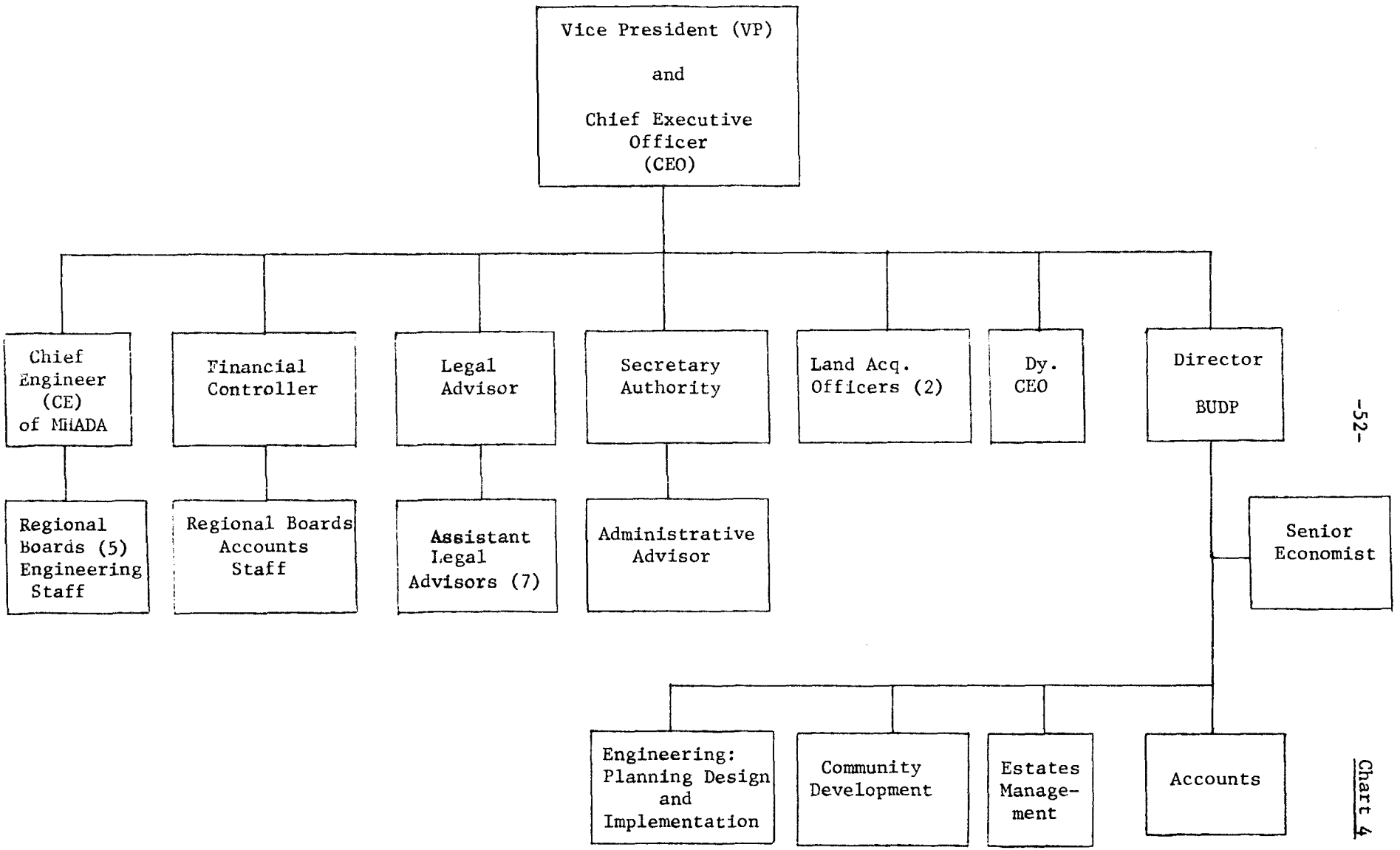


Chart 4

C I D C O

ORGANISATION CHART OF CIDCO (New Bombay Project)

Board of Directors(9)

Managing Director cum Vice Chairman

Chief Administrative Officer, Administration Section (Registered Office at Nirmal, 2nd Floor, Nariman Point, Bombay 400 021)	Company Secretary and Law Officer Legal and Secretarial Section (Registered Office at Nirmal)	Public Relations Officer Public Relations, Advertising & Information Section (Registered Office at Nirmal)	Site Officer at Vashi New Bombay 400 703 (as detailed below) (All Heads of Sections report to M.D. Total Section - 9

ORGANISATION CHART OF SITE OFFICE AT VASHI, NEW BOMBAY - 400 703

Chief Engineer / Addl. Chief Engineer	Chief Architect and Planner	Chief Accounts and Finance Officer	Internal Auditor	Personnel Manager	Chief Land and Survey Officer	Senior Economist	Marketing Manager (New Bombay)	Manager Town Service
Engineering, Design, Execution & Materials Sections (Execution staff divided into 3 circles, each headed by Supdt. Engr. & further sub-divided into 16 Divisions classified by nodes plus 1 common Division for Electrical. Materials Section is headed by Materials Manager of the rank of S.E. The Design & Project Cell is also headed by S.E.)	Architecture, Planning, Transportation, Bldg. Permission and Horticulture Section (Staff divided by circles, each circle headed by a Dy.Chief Planner) Transportation Section headed by Senior Transportation Planner who also maintains liaison with Railway and Telephone Deptt.	Accounts & Finance Section (Common Service Section, though separate Accounts staff at the level of Asstt.Acct. Officer attached to each circle)	Internal Audit Section	Personnel, Security and House Keeping Sections	Lands, Survey, Controller of unauthorised constructions, Estate and Rehabilitation Section	Economics & Statistics Section	Marketing Section (New Bombay)	Social Service Public Health Section and Asstt. Law Officer.

TOTAL STAFF = 1550

CHART 5

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

BMC Organization Structure

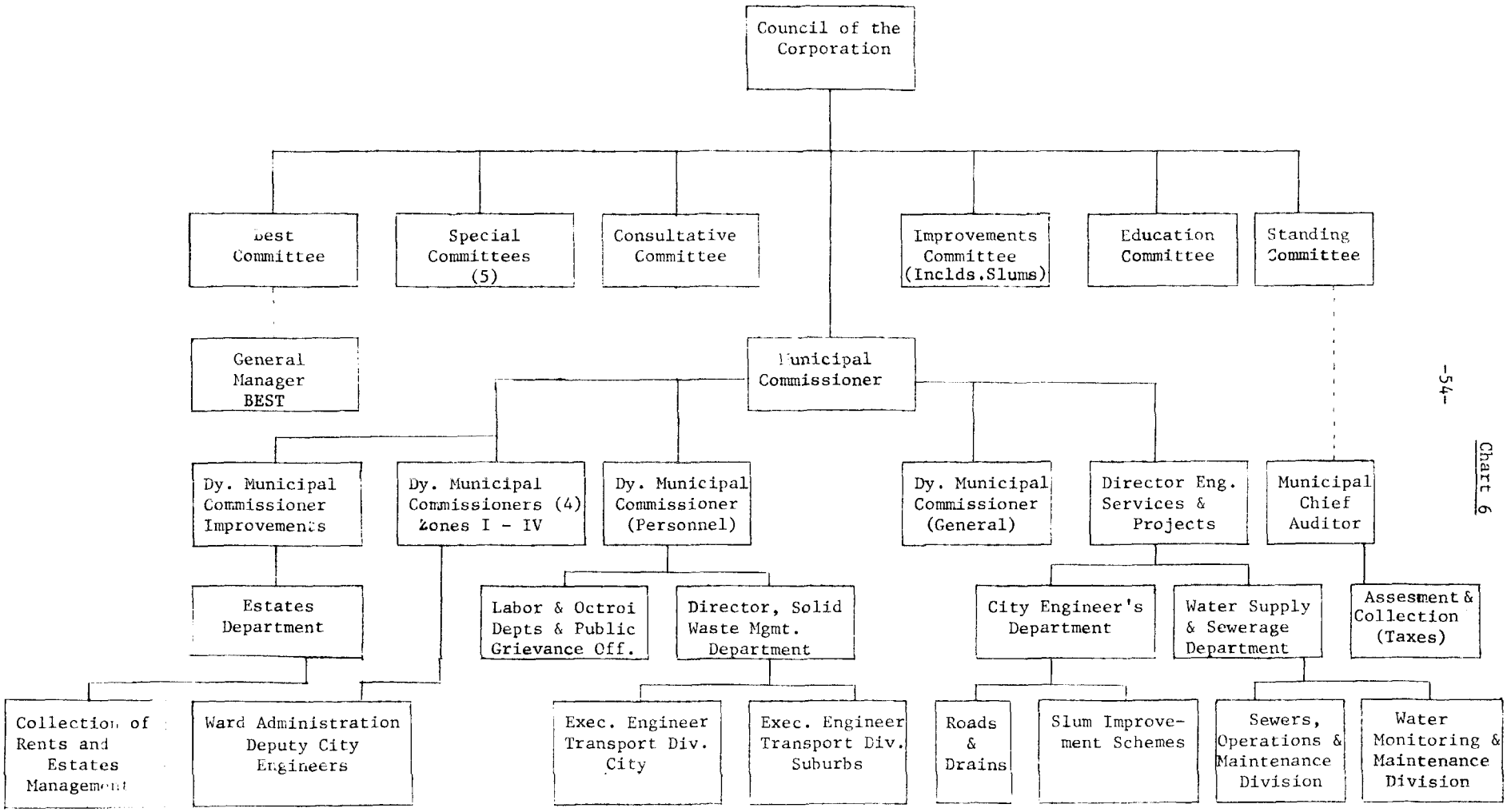


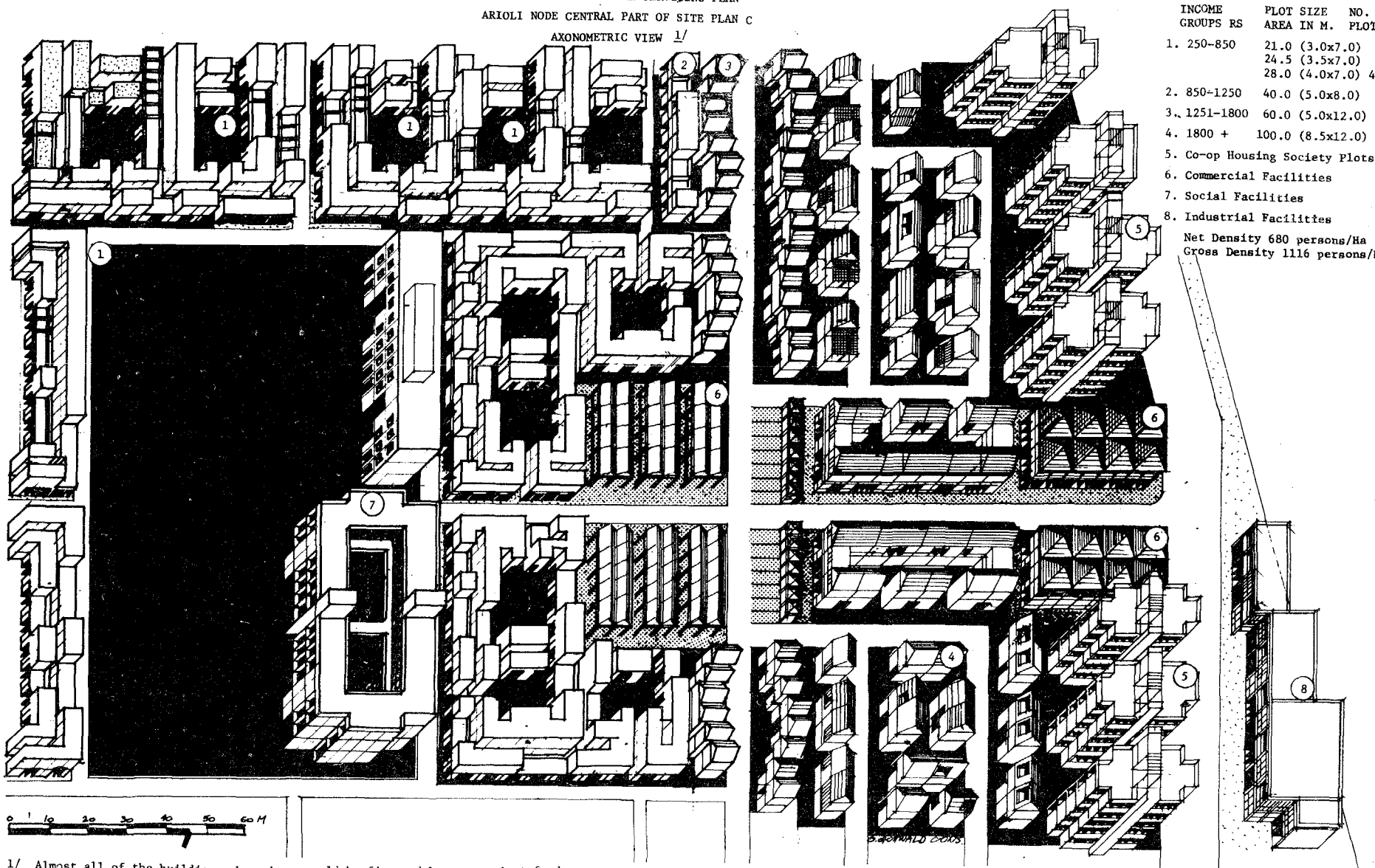
Chart 6

INDIA BOMBAY URBAN DEVELOPMENT PROJECT

LAND AND INFRASTRUCTURE SERVICING PLAN

ARIOLI NODE CENTRAL PART OF SITE PLAN C

AXONOMETRIC VIEW 1/



LAND USE

INCOME GROUPS RS	PLOT SIZE AREA IN M.	NO. OF PLOTS
1. 250-850	21.0 (3.0x7.0) 24.5 (3.5x7.0) 28.0 (4.0x7.0)	492
2. 850-1250	40.0 (5.0x8.0)	8
3. 1251-1800	60.0 (5.0x12.0)	46
4. 1800 +	100.0 (8.5x12.0)	70
5. Co-op Housing Society Plots		7
6. Commercial Facilities		
7. Social Facilities		
8. Industrial Facilities		

Net Density 680 persons/Ha
Gross Density 1116 persons/Ha

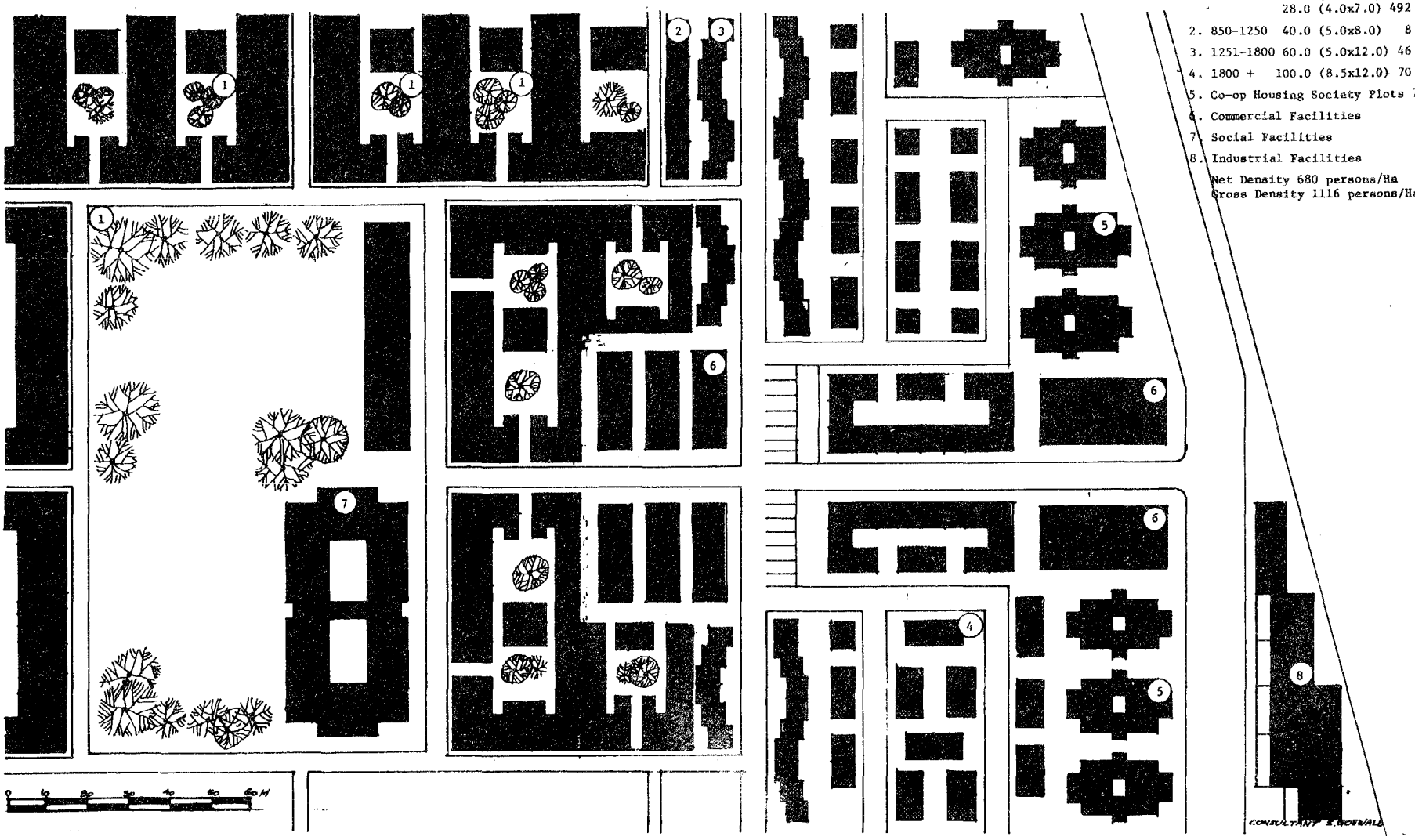
1/ Almost all of the buildings shown here would be financed by non-project funds, the costs therefore are not included in project costs.

Sketch 1

INDIA BOMBAY URBAN DEVELOPMENT PROJECT

LAND AND INFRASTRUCTURE SERVICING SITE

ARIOLI NODE CENTRAL PART OF SITE PLAN C



LAND USE

	INCOME GROUP RS	PLOT SIZE AREA IN M.	NO. OF PLOTS
1.	250-850	21.0 (3.0x7.0) 24.5 (3.5x7.0) 28.0 (4.0x7.0)	492
2.	850-1250	40.0 (5.0x8.0)	8
3.	1251-1800	60.0 (5.0x12.0)	46
4.	1800 +	100.0 (8.5x12.0)	70
5.	Co-op Housing Society Plots		7
6.	Commercial Facilities		
7.	Social Facilities		
8.	Industrial Facilities		

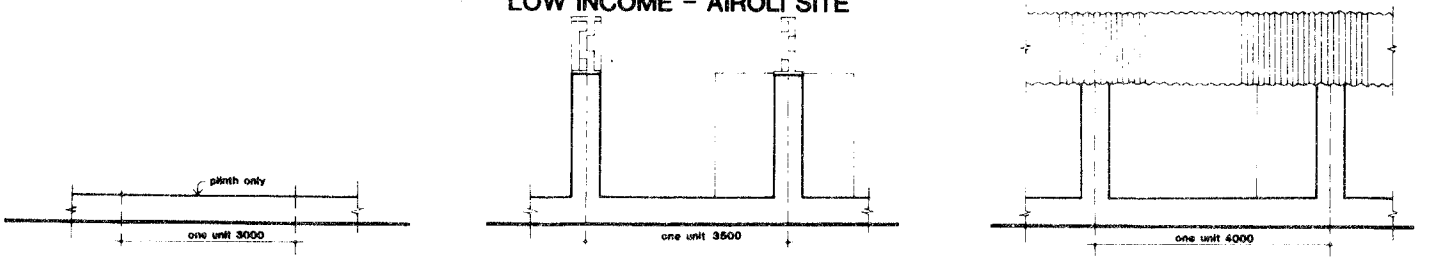
Net Density 680 persons/Ha
Gross Density 1116 persons/Ha

Sketch 2

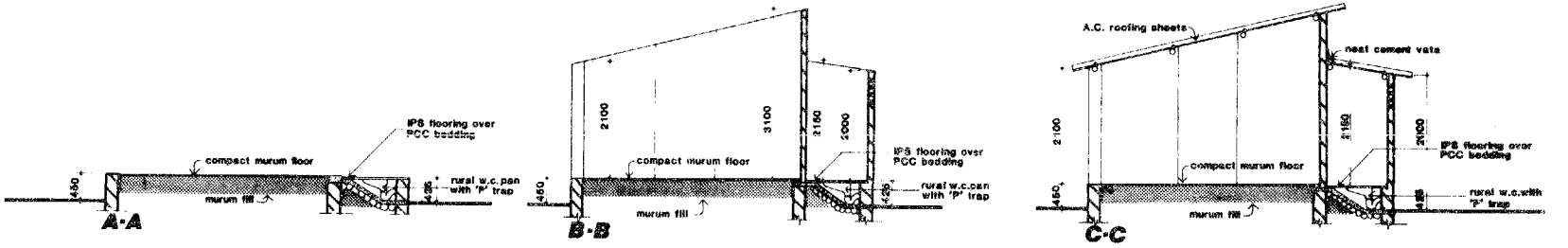
INDIA
BOMBAY URBAN DEVELOPMENT PROJECT
PLOT, CORE AND SHELTER OPTIONS
LAND AND INFRASTRUCTURE SERVICING PROGRAM (LISP)
LOW INCOME - AIROLI SITE

Sketch 3

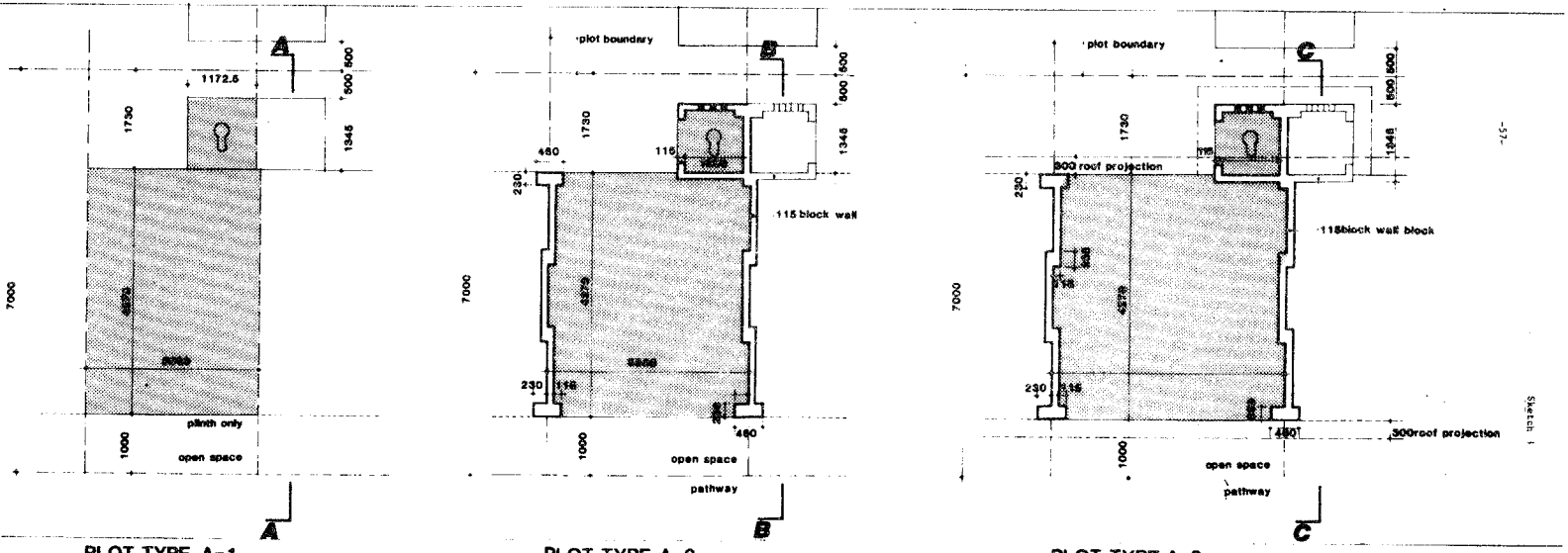
ELEVATIONS



SECTIONS



PLANS



All dimensions in mm.

PLOT TYPE A-1
INCOME GROUP to Rs.350

PLOT TYPE A-2
INCOME GROUP Rs.351-Rs.600

PLOT TYPE A-3
INCOME GROUP Rs.601-Rs.850

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Slum Transformation Strategies

1. Currently, the total housing need in the BMR is between 945,000 and 1,200,000 units. Approximately 50-60% of all households are living in environmentally unacceptable or illegal (unEALS) shelter. Using the lower of these two figures, BMRDA projected that the BMR would grow by 66,000 - 68,000 households per year and by 1990 the total housing need would be 2,430,000. Three strategies have been explored for reducing the number of households in un-EALS shelter: (I) - Conventional Programs, currently resulting in the production of 32,500 shelter units by both the private and public sectors are continued at a higher level of investment; (II) - Moderate Growth Programs, in which BUDP projects are added to substantially constrained conventional MHADA programs and continued beyond 1988 by MHADA and CIDCO; and (III) - Accelerated Growth Programs, in which in addition to the measures in Strategy II, 10% of total private sector investment is directed into the production of LISP type units.

2. Strategy I - Conventional programs, without BUDP. This alternative illustrates what happens if existing programs for providing shelter are continued at their present levels. The key features of this strategy are: (i) MHADB continues its apartment construction, chawl repair/reconstruction, and slum improvement programs. These programs produce ± 16,000 units annually of which only 3,000 apartments are EALS units; (ii) CIDCO continues its apartment construction program. This currently produces ± 10,000 units annually. Private and co-op construction programs (including units financed by MHCS) continue at a level of ± 20,000 units annually, increasing to 27,000 units by 1990.

3. Unit construction costs for both public and private land, infrastructure, and housing are relatively high: MHADA apartments - Rs 50,000; chawl reconstruction and repair - Rs 25,000 per unit; and privately and co-op constructed apartments Rs 75,000, and the average cost per unit would be Rs 65,700.

4 Total shelter production under Strategy I is 32,500 units annually, increasing to ± 50,000 units by 1990. However, with the number of new households increasing by 68,000 units annually, the housing supply falls far short of need. By the end of the Seventh Five-Year Plan (Year 1990) the backlog of need would have grown to over 1.21 million units.

5. Strategy II Moderate Transformation Strategy (with BUDP). This alternative illustrates the effects of BUDP on the total housing need. In addition to existing MHADA, CIDCO and private construction programs, a four-year BUDP construction program would produce 107,200 Sites and Service (LISP) units and 100,000 units of Slum improvement (SUP) to EALS standards. Key features of this strategy are: (i) Private developers, co-ops and CIDCO continue to produce conventional shelter as in Strategy I; (ii) Conventional MHADA apartment construction programs are limited to Rs 10 crores/year, or

about 400 apartments and 8,000 sites and services units per year on sites and service (LISP) type layouts; (iii) BUDP programs include both LISP units produced by MHADA and CIDCO (average 26,800 per year) and SUP units produced by MHADA, average 25,000 per year. After 1988, BUDP-type units continue to be produced by MHADA and CIDCO at the same annual rate as in the peak year of BUDP.

6. Conventional construction costs under this alternative are the same as for Strategy I. Under BUDP, however, LISP sites will be produced at a cost of Rs 10,000 per unit (on and off-site construction costs) with an additional Rs 1500 per unit for building loans. SUP sites will be produced at a cost of Rs 1400 per unit (on and off-site construction costs) with an additional Rs 2000 per unit for building loans. Loans lag two years behind the construction program. The average shelter cost from all sources would be reduced from Rs 68,000 at present to Rs 37,200 by 1990 (in 1983 prices).

7. This strategy also includes the investment of individual private resources for the construction and improvement of shelter on BUDP sites, at an average per household of Rs 14,000 for LISP units and Rs 7,000 for SUP units. By 1990 a total of more than Rs 200 crore of private capital would have been mobilized. In addition, the tax revenues realized by the municipalities on the units produced under the ALIS program would be about Rs 69 crore per year by 1990.

8. Total annual shelter production from all sources would increase from 64,000 units in 1984 to 126,800 units in 1990. By the end of the VIIth Five Year Plan (1990), the backlog of unacceptable housing would be reduced to 797,000 units (33% of all BMR households).

9. Strategy III Accelerated Transformation Program (with BUDP). The goal of this alternative is to further reduce the housing need backlog by adding to strategy II incentives that would divert 10% of private investment to sites and service-type development, and increasing production rates in the public sector. Key features of this strategy are: (i) Co-ops and CIDCO continue to produce conventional shelter as in Strategy I; (ii) Conventional MHADA programs include LISP units as in Strategy II; (iii) The BUDP program of LISP and SUP units is implemented as in Strategy II; (iv) Post BUDP construction of both LISP and SUP units continues to grow at a rate of 3.3% annually; and (v) In the private sector, 10% of all investment is diverted to LISP-type units, with the net effect of increasing this sector's annual production by nearly 40% by 1990.

10. One possible way of diverting private investment to LISP-type units would be through joint venture LISP schemes involving the collaboration of GOM and the private sector. An additional possibility, not modeled here, but being explored by GOM, would be to ensure that conventional public investment programs for chawls repair and slum upgrading resulted in EALS units and achieved full cost recovery at prices affordable to low income households.

In joint venture LISP schemes, land servicing costs, layouts, service standards, beneficiary criteria and the DCBR provisions for the private sector would be essentially the same as in public sector LISP schemes. GOM and the private owner/developer would conclude an agreement for the private owner/developer to fund and implement all on-site infrastructure and core housing. GOM would fund and implement off-site infrastructure and on-site community facilities. The owner/developer would transfer the ownership of low income plots to GOM, which would sell them to beneficiaries at the affordable prices established for public sector LISP schemes. Because of the limited availability of long-term private institutional financing for low income housing, GOM would provide plot and home expansion loans to low income beneficiaries on the same terms and conditions established for public sector LISP schemes. GOM would also become the owner of land and infrastructure in streets and spaces for all types of community facilities. The owner/developer would own, market and retain the revenue from all remaining serviced land and any superstructure constructed on it in conformity with allowed DCBR.

11. Conventional construction costs under this alternative are the same as for Strategy I. BUDP and post BUDP costs are similar to Strategy II. The average shelter cost from all sources will be reduced from Rs 68,000 at present to Rs 34,000 by 1990.

12. The mobilization of private capital for housing improvements on LISP and SUP sites would aggregate to over Rs 340 crore by 1990. The additional tax revenues realized by municipalities would be over Rs 72 crore per year by 1990.

13. Total shelter production from all sources would increase from 74,000 EALS units per year in 1984, to 148,000 EALS units per year by 1990. The annual production would be almost 138,000 units in 1987. By the end of the fourth Five-Year Plan (Year 1990), the backlog of housing need would be reduced to 700,000 units.

INDIA
BOMBAY URBAN DEVELOPMENT PROJECT
Population and Household Projections

				1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
		Command	Units														
POPULATION:	Greater Bombay	Data input	Persons	8227000	8481400	8729800	8971200	9204400	9428600	9642800	9846100	10037000	10216000	10381000			
	Growth Rate		%		.03092257	.02928762	.02765241	.02599429	.02435792	.02271811	.02108309	.01938839	.01783401	.01615114			
	Thana M.C.	Data input	Persons	474000	503310	533280	563950	595330	627470	660409	694170	728830	764420	794230			
	Growth Rate		%		.06183544	.05954581	.05751200	.05564323	.05398686	.05248060	.05113568	.04993013	.04883169	.03899689			
	Kalyan M.C.	Data input	Persons	837000	877790	919030	960310	1002400	1044200	1086000	1127500	1168700	1209300	1249200			
	Growth Rate		%		.04873357	.04698162	.04546098	.04328639	.04169992	.04003065	.03821363	.03654102	.03473945	.03299429			
	New Bombay	Data input	Persons	263000	279690	300190	325140	355370	391910	436060	489470	554230	633020	729240			
	Growth Rate		%		.06346008	.07329543	.08311403	.09297533	.10282241	.11265342	.12248314	.13230637	.14216120	.15200152			
	Total Population BMR	line 9+11+13+14	Persons	9801000	10142190	10482300	10821100	11157500	11492180	11825260	12157240	12488760	12822740	13153670	13486458	13818225	14145717
	Overall Growth Rate BMR		%		.03481175	.03353418	.03232115	.03108741	.02999597	.02898319	.02807380	.02726935	.02674245	.02580806	.0253	.02460000	.02370000
HOUSEHOLDS:	Total Households @ 5 per h/h line 18/5.0		D.U.	1960200	2028438	2096460	2164220	2231500	2298436	2365052	2431448	2497752	2564548	2630734	2697291.6	2763644.9	2829143.3
	Annual Growth-new households	line 20-prev.year	D.U.		68238	68022	67760	67280	66936	66616	66396	66304	66796	66186	66557.570	66353.373	65498.385

Notes: (1)Household and Population data from BMR data
(2)For calculation purposes data on line 20 is input to the Slum Transformation Strategy tables one year later than shown here.
(3)Total household data for BMR after 1992 is extrapolated
(4)Annual Growth of new households (line 21) is rounded to nearest '000 for input to Slum Transformation Strategy Tables

Note: Total Population is extrapolated from this point

ANNEX 1
Table 1

INDIA
BOMBAY URBAN DEVELOPMENT PROJECT
Slum Transformation Strategies

				1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
		Command	Units														
Total Households			D.U.	1960000	1960000	2028000	2096000	2164000	2230000	2297000	2363000	2429000	2496000	2562000	2628000	2695000	2761000
Annual Growth		from MHADA data	D.U.	0	68000	68000	68000	66000	67000	66000	66000	67000	66000	66000	67000	66000	66000
un-EALS units (Backlog)			D.U.	945000													
Chawls:145000			D.U.														
Huts: 800000			D.U.														
Housing Failures		(Constant)	D.U.	0	5600	5600	5600	5600	5600	5600	5600	5600	5600	5600	5600	5600	5600
Annual Deficit (from previous year)			D.U.	945000													
TOTAL SHELTER NEED (Incr.need+deficit)		line 10+14+prev.16	D.U.	945000	1018600	1092200	1165800	1237400	1310000	1381600	1453200	1525800	1597400	1669000	1741600	1813200	1884800
CONVENTIONAL STRATEGY I																	
Current Programs:	Private Construction	90% of line 24	D.U.		17550	18000	18900	19800	20700	21600	22500	23400	24300	25200	26100	27000	27900
	Investm't(Rs75000/)	line 20*.75	Rs.(lakhs)		13163	13500	14175	14850	15525	16200	16875	17550	18225	18900	19575	20250	20925
	Co-ops	10% of line 24	D.U.		1950	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100
	Investm't(Rs75000/)	line 22*.75	Rs.(lakhs)		1463	1500	1575	1650	1725	1800	1875	1950	2025	2100	2175	2250	2325
TOTAL PVT + COOP UNITS		grow @ 1000 DU p.a.	D.U.		19500	20000	21000	22000	23000	24000	25000	26000	27000	28000	29000	30000	31000
TOTAL PVT + COOP INVESTMENT		line 21+23	Rs.(lakhs)		14625	15000	15750	16500	17250	18000	18750	19500	20250	21000	21750	22500	23250
	MHADA(non IDA) Apts.	grow by 750 DU p.a.	D.U.		3000	3750	4500	5250	6000	6750	7500	8250	9000	9750	10500	11250	12000
	Investm't(Rs50000/)	line 27*.50	Rs.(lakhs)		1500	1875	2250	2625	3000	3375	3750	4125	4500	4875	5250	5625	6000
	MHADA Chawl Rep(unEALS)	(constant)	D.U.		3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600
	Investm't(Rs25000/)	line 29*.25	Rs.(lakhs)		900	900	900	900	900	900	900	900	900	900	900	900	900
	MHADA Slum Impr(unEALS)	(constant)	unEALS D.U		10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000
	Investm't(Rs 1000/)	line 31*.01	Rs.(lakhs)		100	100	100	100	100	100	100	100	100	100	100	100	100
TOTAL MHADA EALS UNITS		line 27	D.U.		3000	3750	4500	5250	6000	6750	7500	8250	9000	9750	10500	11250	12000
TOTAL MHADA ALL NON-IDA UNITS		line 29+31+33	D.U.		16600	13750	14500	15250	16000	16750	17500	18250	19000	19750	20500	21250	22000
TOTAL MHADA INVESTMENT		line 26+30+32	Rs.(lakhs)		2500	2875	3250	3625	4000	4375	4750	5125	5500	5875	6250	6625	7000
	CIDCO(non IDA) Apts	grow by 500 DU p.a.	D.U.		10000	10500	11000	11500	12000	12500	13000	13500	14000	14500	15000	15500	16000
	Investm't(Rs50000/)	line 37*.50	Rs.(lakhs)		5000	5250	5500	5750	6000	6250	6500	6750	7000	7250	7500	7750	8000
TOTAL PUBLIC EALS UNITS		line 33+37	D.U.		13000	14250	15500	16750	18000	19250	20500	21750	23000	24250	25500	26750	28000
TOTAL PUBLIC INVESTMENT		line 35+38	Rs.(lakhs)		7500	8125	8750	9375	10000	10625	11250	11875	12500	13125	13750	14375	15000
TOTAL EALS SUPPLY FROM CURRENT PROGRAMS		line 24+40	D.U.		32500	34250	36500	38750	41000	43250	45500	47750	50000	52250	54500	56750	59000
TOTAL EALS INVESTMT IN CURRENT PROGRAMS		line 25+41-30-32	Rs.(lakhs)		21125	22125	23500	24875	26250	27625	29000	30375	31750	33125	34500	35875	37250
unEALS UNITS CARRIED FORWARD		I46+line 10+14-43	D.U.	945000	986100	1025450	1062550	1095400	1127000	1155350	1181450	1206300	1227900	1247250	1265350	1280200	1292800
% of households in unEALS		line 46/9*100			50.31	50.56	50.69	50.62	50.54	50.30	50.00	49.66	49.19	48.68	48.15	47.50	46.82
TOTAL PUB/PVT INVESTM'T inc unEALS		line 25+41	Rs.(lakhs)		22125	23125	24500	25875	27250	28625	30000	31375	32750	34125	35500	36875	38250
AVERAGE COST OF EALS SHELTER (all types)		line 48/line 43	Rs.		68077	67518	67123	66774	66463	66185	65934	65707	65500	65311	65138	64978	64831
PROPERTY TAX GENERATION		line 48(cumul)*2.5%	Rs.(lakhs)		553	1131	1744	2391	3072	3788	4538	5322	6141	6994	7881	8803	9759

Notes: (1) All investment and revenues in lakhs of Rs at 1983 prices.
(2) Dates are for marketing of units.

INDIA
BOMBAY URBAN DEVELOPMENT PROJECT
Slum Transformation Strategies

53	**********																		
54	MODERATE GROWTH STRATEGY: II			1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
55	**********																		
56	MHADA CONVENTIONAL PROGRAM (modified)	constant after 1984	D.U.		3000	3750	8400	8400	8400	8400	8400	8400	8400	8400	8400	8400	8400	8400
57	LISP-type Units	line 58/Rs10000	D.U.		0	0	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000	8000
58	On/offsite Cost (Rs8cr/yr after'84,50%pre-spent		Rs.(lakhs)		0	400	800	800	800	800	800	800	800	800	800	800	800	800
59	Indiv.Pvt.equity(line 57*Rs14000 lag'd by 2 yrs		Rs.(lakhs)		0	0	0	0	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120
60	Conventional Apts	line 61/Rs50000	D.U.		3000	3750	400	400	400	400	400	400	400	400	400	400	400	400
61	Investment(Rs50000/)	Rs2cr/yr constant	Rs.(lakhs)		1500	1875	200	200	200	200	200	200	200	200	200	200	200	200
62	MHADA CONVENT'L INVESTM'T(modified)	Rs10cr/yr after'84	Rs.(lakhs)		1500	2275	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
63	----------																		
64	**BUDP TOTAL LISP UNITS (MHADA+ CIDCO)**	Data input	D.U.	*	0	0	11100	30700	42900	22500	0	0	0	0	0	0	0	0
65	BUDP MHADA LISP UNITS(75% of TOTAL)	line 64*.75	D.U.	*	0	0	8325	23025	32175	16875	0	0	0	0	0	0	0	0
66	On/offsite Cost (line 65*Rs10000,50% pre-spent)		Rs.(lakhs)	*		416	1568	2760	2453	844	0	0	0	0	0	0	0	0
67	Onsite-MHADA	line 66*80%	Rs.(lakhs)	*	0	333	1254	2208	1962	675	0	0	0	0	0	0	0	0
68	OffSite-Municipal Corps	line 66*20%	Rs.(lakhs)	*	0	83	314	552	491	169	0	0	0	0	0	0	0	0
69	Building loans (line 65*Rs 1500 lag'd by 2 yrs)		Rs.(lakhs)	*			0	0	125	345	483	253	0	0	0	0	0	0
70	Indiv.Pvt equity(line 65*Rs14000 lag'd by 2 yrs)		Rs.(lakhs)	*			0	0	1166	3224	4505	2363	0	0	0	0	0	0
71	BUDP MHADA LISP PUBLIC INVESTMENT	line 66+69	Rs.(lakhs)	*	0	416	1568	2760	2577	1169	483	253	0	0	0	0	0	0
72																			
73	Post-BUDP MHADA LISP(take over from BUDP peak - no growth)		D.U.		0	0	0	0	0	15300	32175	32175	32175	32175	32175	32175	32175	32175
74	On/offsite Cost (line 73*Rs10000,50% pre-spent)		Rs.(lakhs)			0		0	765	2374	3218	3218	3218	3218	3218	3218	3218	3218
75	Onsite-MHADA	line 74*80%	Rs.(lakhs)		0	0	0	0	612	1899	2574	2574	2574	2574	2574	2574	2574	2574
76	OffSite-Municipal Corps	line 74*20%	Rs.(lakhs)		0	0	0	0	153	475	644	644	644	644	644	644	644	644
77	Building loans (line 73*Rs 1500 lag'd by 2 yrs)		Rs.(lakhs)					0	0	0	0	230	483	483	483	483	483	483
78	Indiv.Pvt equity(line 73*Rs14000 lag'd by 2 yrs)		Rs.(lakhs)							0	0	2142	4505	4505	4505	4505	4505	4505
79	Post-BUDP MHADA LISP PUBLIC INVESTMENT	line 74+77	Rs.(lakhs)		0	0	0	0	765	2374	3218	3447	3700	3700	3700	3700	3700	3700
80																			
81	BUDP CIDCO LISP UNITS(25% of TOTAL)	line 64*.25	D.U.	*	0	0	2775	7675	10725	5625	0	0	0	0	0	0	0	0
82	On/offsite Cost (line 81*Rs10000,50% pre-spent		Rs.(lakhs)	*	0	139	523	920	818	281	0	0	0	0	0	0	0	0
83	Onsite-CIDCO	line 82*80%	Rs.(lakhs)	*	0	111	418	736	654	225	0	0	0	0	0	0	0	0
84	Offsite-CIDCO	line 82*20%	Rs.(lakhs)	*	0	28	105	184										
85	Building loans (line 81*Rs 1500 lag'd by 2 yrs)		Rs.(lakhs)	*	0	0	0	0	42	115	161	84	0	0	0	0	0	0
86	Indiv.Pvt equity(line 81*Rs14000 lag'd by 2 yrs)		Rs.(lakhs)	*					389	1075	1502	788	0	0	0	0	0	0
87	BUDP CIDCO LISP PUBLIC INVESTMENT	line 82+85	Rs.(lakhs)	*	0	139	523	920	859	396	161	84	0	0	0	0	0	0
88																			
89	Post-BUDP CIDCO LISP(take over from BUDP peak - no growth)		D.U.		0	0	0	0	0	5100	10725	10725	10725	10725	10725	10725	10725	10725
90	On/offsite Cost (line 89*Rs10000,50% pre-spent		Rs.(lakhs)				0	0	255	791	1073	1073	1073	1073	1073	1073	1073	1073
91	Onsite-CIDCO	line 90*80%	Rs.(lakhs)		0	0	0	0	204	633	858	858	858	858	858	858	858	858
92	Offsite-CIDCO	line 90*20%	Rs.(lakhs)		0	0	0	0	51	158	215	215	215	215	215	215	215	215
93	Building loans (line 89*Rs 1500 lag'd by 2 yrs)		Rs.(lakhs)		0	0	0	0	0	0	0	77	161	161	161	161	161	161
94	Indiv.Pvt equity(line 89*Rs14000 lag'd by 2 yrs)		Rs.(lakhs)		0	0	0	0	0	0	0	714	1502	1502	1502	1502	1502	1502
95	Post-BUDP CIDCO LISP PUBLIC INVESTMENT	line 90+93	Rs.(lakhs)		0	0	0	0	255	791	1073	1149	1233	1233	1233	1233	1233	1233
96																			
97	Post-BUDP TOTAL LISP UNITS (MHADA+CIDCO)	line 73+89	D.U.		0	0	0	0	0	20400	42900	42900	42900	42900	42900	42900	42900	42900
98	ALL LISP UNITS-BUDP+post BUDP	line 64+97	D.U.		0	0	11100	30700	42900	42900	42900	42900	42900	42900	42900	42900	42900	42900
99	BUDP TOTAL LISP PUB.INVSTM'T MHADA/CIDCO	line 71+87	Rs.(lakhs)	*	0	555	2090	3680	3437	1586	644	338	0	0	0	0	0	0
100	BUDP TOTAL LISP INDIV.PVT.INVESTM'T	line 70+86	Rs.(lakhs)	*	0	0	0	0	1554	4298	6006	3150	0	0	0	0	0	0
101	Post-BUDP LISP PUB.INVSTM'T MHADA/CIDCO	line 79+95	Rs.(lakhs)		0	0	0	0	1020	3165	4290	4596	4934	4934	4934	4934	4934	4934
102	Post-BUDP LISP INDIV.PVT.INVESTM'T	line 78+94	Rs.(lakhs)		0	0	0	0	0	0	0	2856	6006	6006	6006	6006	6006	6006

Notes: (1) All investment and revenues in lakhs of Rs at 1983 prices.
(2) Dates are for marketing of units.

INDIA
BOMBAY URBAN DEVELOPMENT PROJECT
Slum Transformation Strategies

(continued)

	MODERATE GROWTH STRATEGY: II				1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
103																		
104	BUDP TOTAL SUP UNITS -MHADA	Data input	D.U.	*	0	0	12200	28000	36000	23800	0	0	0	0	0	0	0	
105	On/offsite Cost	line 104*Rs1400, 10% pre-spent)	Rs.(lakhs)	*		122	1378	2880	3478	2142	0	0	0	0	0	0	0	
106	Onsite MHADA	line 105*.85	Rs.(lakhs)	*	0	104	1171	2448	2956	1821	0	0	0	0	0	0	0	
107	Offsite-MHADA	line 105*.15	Rs.(lakhs)	*	0	18	207	432	522	321	0	0	0	0	0	0	0	
108	Building loans	(line 104*Rs2000,lag'd by 2 yrs)	Rs.(lakhs)	*	0	0	0	0	244	560	720	476	0	0	0	0	0	
109	Indiv.Pvt equity	(line 104*Rs7000,lag'd by 2 yrs)	Rs.(lakhs)	*	0	0	0	0	854	1960	2520	1666	0	0	0	0	0	
110	BUDP TOTAL SUP PUBLIC INVESTMENT	line 105+108	Rs.(lakhs)	*	0	122	1378	2880	3722	2702	720	476	0	0	0	0	0	
111																		
112	Post-BUDP TOTAL SUP (take over from BUDP peak - no growth		D.U.		0	0	0	0	0	12200	36000	36000	36000	36000	36000	36000	36000	
113								0	122	1458	3600	3600	3600	3600	3600	3600	3600	
114	Onsite MHADA	line 113*.85	Rs.(lakhs)		0	0	0	1	26	167	360	360	360	360	360	360	360	
115	Offsite MHADA	line 113*.15	Rs.(lakhs)		0	0	0	0	18	219	540	540	540	540	540	540	540	
116	Building loans	(line 112*Rs2000,lag'd by 2 yrs)	Rs.(lakhs)		0	0	0	0	0	0	0	244	720	720	720	720	720	
117	Indiv.Pvt equity	(line 112*Rs7000,lag'd by 2 yrs)	Rs.(lakhs)		0	0	0	0	0	0	0	854	2520	2520	2520	2520	2520	
118	Post-BUDP TOTAL SUP PUBLIC INVESTMENT	line 113+116	Rs.(lakhs)		0	0	0	0	122	1458	3600	3844	4320	4320	4320	4320	4320	
119																		
120	ALL SUP UNITS - BUDP + Post-BUDP	line 104+112	D.U.		0	0	12200	28000	36000	36000	36000	36000	36000	36000	36000	36000	36000	
121	BUDP TOTAL SHELTER UNITS - LISP + SUP	line 94+104	D.U.	*	0	0	23300	58700	78900	48300	0	0	0	0	0	0	0	
122	BUDP TOTAL PUBLIC INVESTM'T LISP + SUP	line 99+110	Rs.(lakhs)	*	0	677	3468	6560	7159	4288	1384	814	0	0	0	0	0	
123	BUDP TOTAL INDIV.PVT INVESTM'T LISP+SUP	line 100+109	Rs.(lakhs)	*	0	0	0	0	2408	6258	8526	4816	0	0	0	0	0	
124																		
125	TOTAL BUDP/Post BUDP SHELTER UNITS	line 98+120	D.U.		0	0	23300	58700	78900	78900	78900	78900	78900	78900	78900	78900	78900	
126	BUDP/Post BUDP LISP	line 98																
127	BUDP/Post BUDP SUP	line 120																
128	TOTAL NON-BUDP EALS SHELTER UNITS	line 24+37+57+60	D.U		32500	34250	40400	41900	43400	44900	46400	47900	49400	50900	52400	53900	55400	
129	P.C.+ Co-ops	line 24																
130	DISCO Conventional	line 37																
131	MHADA Conventl Apts(modified)	line 60																
132	MHADA Conventional LISP	line 57																
133	TOTAL EALS SUPPLY - ALL PROGRAMS	line 125+128	D.U.		32500	34250	63700	100600	122300	123800	125300	126800	128300	129800	131300	132800	134300	
134	TOTAL EALS PUBLIC INVESTM'T ALL PROGRAMS	line 38+62+101+118+122	(Rs.(lakhs)		6500	8292	9968	13310	15301	16161	16754	17004	17254	17504	17754	18004	18254	
135																		
136	unEALS UNITS CARRIED FORWARD	I:136+line10+14-133	D.U	945000	986100	1025450	1055350	1006750	956650	904450	850750	796550	739850	681650	622950	561750	499050	
137	% of households in unEALS	line 136/9*100			50.31	50.56	49.40	46.50	42.90	39.36	36.00	32.79	29.64	26.61	23.70	20.84	18.07	
138	TOTAL PUB PVT SHELTER INVEST inc unEALS	line 25+30+32+134	Rs.(lakhs)		22125	24202	26718	30810	33551	35161	36504	37504	38504	39504	40504	41504	42504	
139	TOTAL INDIV PVT INVESTMENT	line 59+102+117+123	Rs.(lakhs)		0	0	0	0	3528	7378	9646	9646	9646	9646	9646	9646	9646	
140	TOTAL PUB/PVT/INDIV INVESTM'T inc unEALS	line 138+ 139	Rs.(lakhs)		22125	24202	26718	30810	37079	42539	46150	47150	48150	49150	50150	51150	52150	
141																		
142	AVERAGE COST OF EALS SHELTER (all types)	line 140/133	Rs.		68077	70863	41943	30626	30318	34361	36831	37184	37529	37866	38195	38516	38831	
143	PROPERTY TAX GENERATION (cumulative)	line 140(cumul)*2.5%	Rs.(lakhs)		553	1158	1826	2596	3523	4587	5741	6919	8123	9352	10605	11884	13188	
144																		

Notes: (1) All investment and revenues in lakhs of Rs at 1983 prices.
(2) Dates are for marketing of units
(3) * denotes BUDP program.

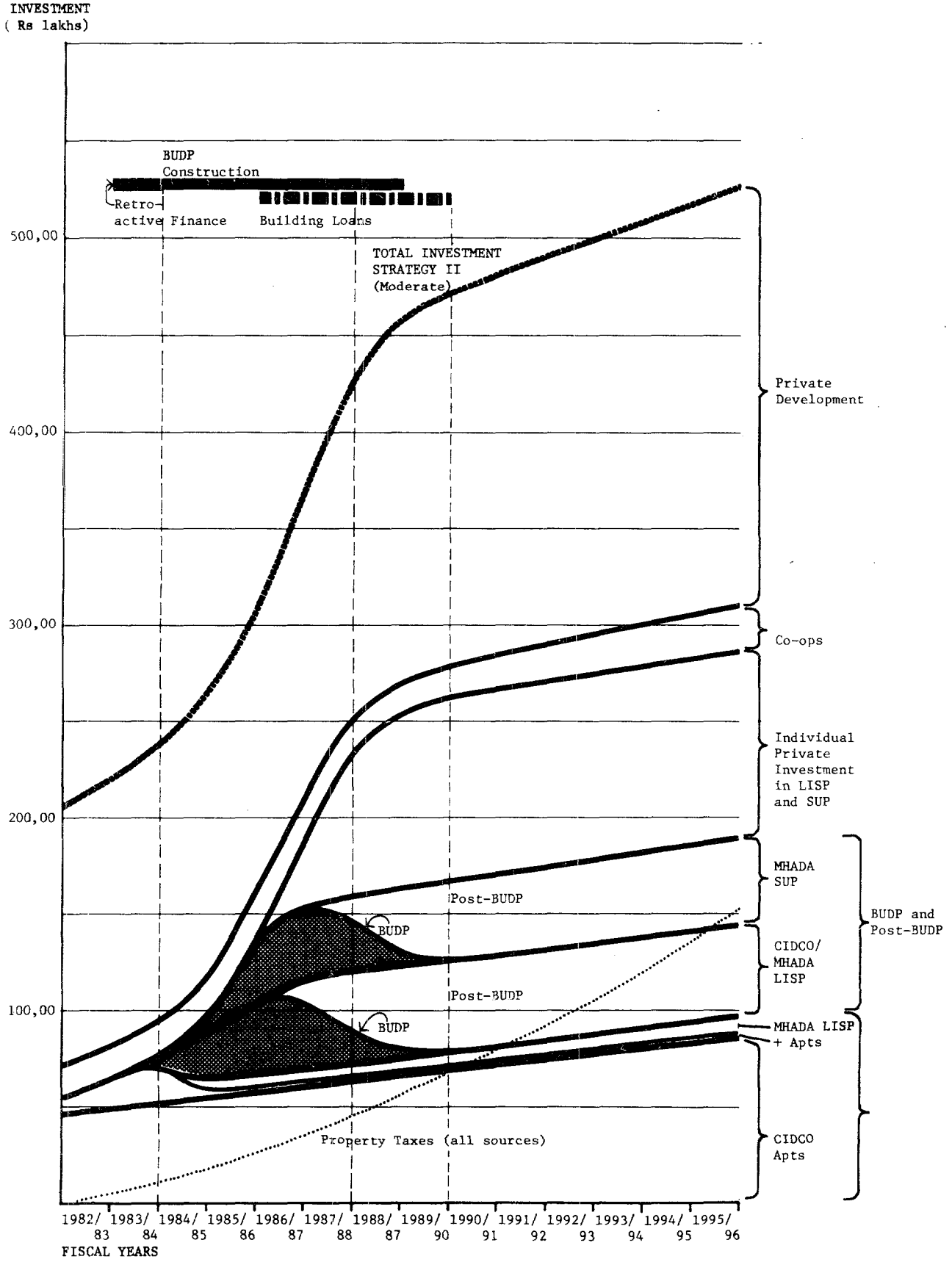
INDIA
BOMBAY URBAN DEVELOPMENT PROJECT
Slum Transformation Strategies

				1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
ACCELERATED GROWTH STRATEGY: III																			
PRIVATE CONSTR. 10% INVESTM'T DIVERSION	line 21*10%	Rs.(lakhs)			0	1350	1418	1485	1553	1620	1688	1755	1823	1890	1958	2025	2093
Reduction in Convent'nal Units	line 148/.75	D.U.			0	1800	1890	1980	2070	2160	2250	2340	2430	2520	2610	2700	2790
PRIVATE LISP from DIVERTED Rs.	line 148/.115	D.U.			0	11739	12326	12913	13500	14087	14674	15261	15848	16435	17022	17609	18196
Onsite Cost (Rs.11500/unit,50%pre-spent)		Rs.(lakhs)			587	1203	1262	1321	1379	1438	1497	1555	1614	1673	1732	1790	1849
Indiv.Pvt.equity(line 150*Rs14000 lag'd by 2yrs)		Rs.(lakhs)			0	0	0	1643	1726	1808	1890	1972	2054	2137	2219	2301	2383
CONVENTIONAL UNITS (Apts etc)	line 20-149	D.U.			17550	16200	17010	17820	18630	19440	20250	21060	21870	22680	23490	24300	25110
TOTAL BUDP/Post BUDP SHELTER UNITS	line 125	D.U.			0	0	23300	58700	78900	81504	84193	86972	89842	92807	95869	99033	102301
BUDP/Post BUDP LISP	line 98																
BUDP/Post BUDP SUP	line 120																
TOTAL NON-BUDP EALS SHELTER UNITS	line 159+163	D.U.			32500	44189	50836	52833	54830	56827	58824	60821	62818	64815	66812	68809	70806
Conventional Programs:	line 22+37+60+153	D.U.			32500	32450	30510	31920	33330	34740	36150	37560	38970	40380	41790	43200	44610
Pvt. + Co-ops	line 22+153	D.U.															
CIDCO Apts	line 37	D.U.															
MHADA Apts (modified program)	line 60	D.U.															
LISP-type Programs	line 57+150	D.U.			0	11739	20326	20913	21500	22087	22674	23261	23848	24435	25022	25609	26196
MHADA (modified conv't'l prog)	line 57	D.U.															
PRIVATE LISP -mixed use sites)	line 150	D.U.															
TOTAL EALS SUPPLY - ALL PROGRAMS	line 155+158	D.U.			32500	44189	74136	111533	133730	138331	143017	147793	152660	157621	162681	167842	173107
TOTAL EALS PUBLIC INVESTM'T ALL PROGRAMS	line 134	Rs.(lakhs)			6500	8202	9968	13310	15383	16566	17371	17947	18533	19131	19740	20361	20994
TOTAL EALS PRIVATE INVSTM'T ALL PROGRAMS	line 25	Rs.(lakhs)			14625	15000	15750	16500	17250	18000	18750	19500	20250	21000	21750	22500	23250
TOTAL EALS PUB/PVT INVSTM'T ALL PROGRAMS	line 167+168	Rs.(lakhs)			21125	23202	25718	29810	32633	34506	36121	37447	38783	40131	41490	42861	44244
TOTAL INDIV. PVT. INVESTM'T ALL PROGRAMS	line 139+152	Rs.(lakhs)			0	0	0	1643	5254	9186	11536	11900	12272	12655	13047	13450	13863
unEALS UNITS CARRIED FORWARD	I172+line 10+14-166	D.U.	945000	986100	1015511	1014975	975042	913912	847181	775764	700571	619512	533490	442439	347169	245661
% of households in unEALS	line 172/9 as %			50.31	50.07	48.42	45.06	40.98	36.88	32.83	28.64	24.82	20.82	16.87	12.88	8.99
TOTAL PUB/PVT SHELTER INVEST inc unEALS	line 138	Rs.(lakhs)			22125	24202	26718	30810	33633	35506	37121	38447	39783	41131	42490	43861	45244
TOTAL INDIV PVT INVESTMENT	line 170	Rs.(lakhs)			0	0	0	1643	5254	9186	11536	11900	12272	12655	13047	13450	13863
TOTAL ALL INVESTMENT inc. unEALS	line 174+175	Rs.(lakhs)			22125	24202	26718	32453	38887	44692	48657	50346	52056	53786	55537	57310	59107
AVERAGE COST OF EALS SHELTER (all types)	line 176/166	Rs.(lakhs)			68077	54769	36039	29098	29079	32308	34022	34066	34099	34123	34139	34148	34145
PROPERTY TAX GENERATION (cumulative)	line 176(cuaul)*2.5%	Rs.(lakhs)			553	1158	1826	2637	3610	4727	5943	7202	8503	9848	11236	12669	14147

Notes: (1) All investment and revenues in lakhs of Rs at 1983 prices.
(2) Dates are for marketing of units.

INDIA
BOMBAY URBAN DEVELOPMENT PROJECT
SLUM TRANSFORMATION STRATEGY II

ANNEX I
Chart 1



ANNUAL INVESTMENT -STRATEGY II- BY SOURCE OF FUNDS

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Lisp Sites and Land Acquisition Schedule

S.No.	Site	Gross Area(ha)	Owner-ship	Location BMC-W	BMC-E	NB	TMC	KMC	TOTAL	Notes
				No. of Households						
Main List										
1.	Charkop I	90	MHADA	15420	-	-	-	-	15420	
2.	Charkop II	57	MHADA	9730	-	-	-	-	9730	
3.	Airoli	145	CIDCO	-	-	18190	-	-	18190	
4.	Versova	35	MHADA	4900	-	-	-	-	4900	
5.	Borivali	58	MHADA	8120	-	-	-	-	8120	
6.	Malvani	66	MHADA	9240	-	-	-	-	9240	
7.	Vikhroli	60	Private	-	8400	-	-	-	8400	H&SA Dept. requested to expedite ULCA proceedings and transfer land to MHADA.
8.	Mulund	8	Private	-	1120	-	-	-	1120	
9.	Majiwade (Voltas)	28	Private	-	-	-	3920	-	3920	
10.	Chitalsar-I	29	MHADA	-	-	-	4060	-	4060	Being acquired by BMRDA. Notified in 12/82. Land available in 1985.
11.	Panchpakhadi	20	BMRDA	-	-	-	2800		2800	
12.	Kalyan GC-I	50		-	-	-	-	7000	7000	Being acquired by BMRDA. Notified in 1/83. Land available in 1985.
13.	Kalyan ADS	56	BMRDA	-	-	-	-	7840	7840	Being acquired by BMRDA. Notification on 6/82. Land available in 1985.
TOTAL		702		47410	9520	18190	10780	14840	100740	
Reserve List										
14.	Poisar	80	Pvt.	11200	-	-	-	-	11200	H&SA Dept. requested to expedite ULCA proceedings and transfer land to MHADA.
15.	Eksar	37	Pvt.	5180	-	-	-	-	5180	
16.	Kanjur	15	R&FD	-	2100	-	-	-	2100	Ownership challenged by private party.
17.	Chitilsar-II	31	Pvt.	-	-	-	4340	-	4340	H&SA has instructed Collector Thane to expedite ULCA proceedings. No final date for availability.
18.	Kolshet	12	Pvt.	-	-	-	1680	-	1680	
19.	Majiwade-II	31	Pvt.	-	-	-	4340		4340	
20.	Kalyan GC-II	50	BMRDA	-	-	-	-	7000	7000	Being acquired by BMRDA. Notification on 1/83. Land available by 1986.
21.	Kalamboli	40	CIDCO	-	-	5600	-	-	5600	
22.	Taloja	40	CIDCO	-	-	5600	-	-	5600	
	TOTAL	336		16380	2100	11200	10360	7000	47040	

NOTES: 1. Gross residential density assumed to be 140 M/M/Ha. (Except Charkop I, II: 770 & Airoli: 125)
2. In event of additional land in Poisar site being avalable, land at Versova and Malvani will be reduced proportionally.

BOMBAY URBAN DEVELOPMENT PROJECT

NODAL3 L115 July 7 Costs and Land Use - Alrole Node 1/
NODAL INFRASTRUCTURE AIROLI

TOTAL AREA OF NODE	210.00								
NON DEVELOPABLE AREA									
Pond	12.00								
Area under pylons	9.00								
Area for trunk roads	15.97								
G.E.S	18.00	Ha							
TOTAL DEVELOPABLE AR.	155.03	Ha							

PROJECTED POPULATION			
Projected av.density	600.00	p/ha	
Projected population	103.82	(*1000)	
Primary s.age pop.	14.53	14.00%	of total population
High sch.att.	2.08	2.00	
Junior college att.	1.04	1.00	
Average househ.size	4.50		
Projected nb.of hhld	23071		

NODAL INFRASTRUCTURE	Cap.cst	unit cost	
1/Bund,pond & channel	37.00		
2/Trunk roads	153.31	96.00	Rs./m2
3/Sewer	55.00		
4/Water	119.49		
5/Solid waste	10.00		
6/Fire protection	20.00		
7/Bus terminal 2@7	14.00		
8/Crematorium &burial	8.00		
9/Develop.of GES area	45.00	25.00	Rs./m2
10/Site office	5.00		
	466.80		
Physical cont 10.00 %	46.68		
Design Sp.&Mg 12.00 %	61.62		
Interest d.c 9.00 %	51.76		
	626.86		
Return on sale of GES	16.20	18.00 Rs./m2	50.00 %salable land
TOTAL COST TO BE DIRECTLY RECOVERED FOR NODE INFRAST.	610.66	Lacs Rs.	

NODAL SOCIAL FACILITIES
Costs & Standards when site is fully occupied.

construction costs	n.unit	unit c	total	cost Rs/m2	user /unit	area standards	fsi	land area/u	land total
Primary school	12.00	23.47	281.66	1200	1200	1.63m2/stud	0.75	0.26	3.13
High "	2.00	17.04	34.08	1200	1000	1.42m2/stud	0.75	0.19	0.38
Junior college	1.00	62.46	62.46	1735	1200	3.00m2/stud	0.75	0.48	0.48
Community ctr.	1.00	12.00	12.00	1200	100000	0.01m2/inh.	0.75	0.13	0.13
Hospital	1.00	48.96	48.96	1600	120	25.50m2/bed	0.75	0.41	0.41
Other facilit.	1.00	9.08	9.08	35	103818	0.25m2/inh.	0.75	3.46	3.46
			448.25						7.99
First phase construction									
Prim.school	5.00	23.47	117.36						
High school	3.00	17.04	51.12						
Junior college	1.00	62.46	62.46						
Community ctr.	1.00	12.00	12.00						
Hospital	1.00	48.96	48.96						
Other fac.	0.50	9.08	4.54						

TOTAL BASE CONST COST 1stPH.	296.44	Lacs	
Physical cont 10.00 %	29.64		
Design S.& M. 12.00 %	39.13		
Interest d.c. 9.00 %	32.87		
TOTAL CONST.COST SOCIAL FAC.	398.09		
Price to be paid for dev.lan	79.90	100.00 Rs./m2	(land for all phases)
TOTAL COST OF SOCIAL FAC.	477.99	(1st Phase only)	
Contribution of sf users (1st phase)			
Primary schools	73.35	750.00 Rs./m2	of floor area
High schools	31.95	750.00 Rs./m2	" "
Junior college	72.00	2000 Rs./m2	" "
Community ctr.	0.00	0.00 Rs./m2	" "
Hospitals	61.20	2000 Rs./m2	" "
Other fac.	5.84	45.00 Rs./m2	" "
TOTAL RECOVERED FROM USERS	244.34		
TOTAL TO BE RECOVERED	233.65		
% to be directly recovered	100.00		
TOTAL COST TO BE DIRECTLY RECOVERED FROM NODE INHAB.	233.65		

COST/M2 TO BE RECOVERED FROM NODE INHABITANTS		
for infrastructure =	39.39	Rs./m2
for social facilit.=	15.07	Rs./m2
for city scale inf.=	3.23	Rs./m2
	57.69	Rs./m2
AVERAGE COST PER HH.	3877	Rs

TOTAL CAPITAL INVESTMENT IN NODAL INFRASTRUCTURE AND SOCIAL FACILITIES			
1/Infrastructure =	626.86		
2/Social facilities:			
a/Land =	79.90		
b/Buildings =	398.09		
TOTAL INVESTED	1104.8		
SOURCES OF RECOVERY			
1/Node inhabitants =	844.31	76.42	%
2/GES beneficiaries=	16.20	1.47	%
3/Social inf.users =	244.34	22.12	%
4/Government subsid=	0.00	0.00	%
	1104.8	100.00	

Area occupied byHUDCO	9.40
Area to be developed under project	145.63

1/ All income prices, loan amounts and charges in this table are for September 1983. Project base costs in July 1984 prices are estimated to be 4% higher and are derived from but not directly linked to this table.

BOMBAY URBAN DEVELOPMENT PROJECT

ANNEX 4

Detailed Costs and Phasing - Airoli Node 1/

Date: July 9/83 TOTAL COSTS-AIROLI SITES AND SERVICES-CIDCO Total area = 145.63

CISTC2 072	Base Costs	Phys. cont.	Des&sup &mgmt.	TOTAL	83/84	84/85	85/86	86/87	Costs to be recovered Inter.d. Total	cons.= /m2	0.09 /unit
% & phasing		0.00	0.02		1.00						
A.LAND	58.25		1.17	59.42	59.42				64.76	4.45	
% & phasing		0.10	0.12		0.50	0.50					
B.SITE PREPARATION	74.27	7.43	9.80	91.50	45.75	45.75	0.00	0.00	99.74	6.85	
B.ON SITE INFRA.											
Roads	111.93										
Drainage	188.79										
Sewerage	94.42										
Electricity	66.41										
Water supply	94.42										
Landscp.&refuse col	49.67	%	%								
% & phasing		0.10	0.12		0.05	0.40	0.35	0.20			
TOTAL ON SITE INFRA	605.64	60.56	79.94	746.15	37.31	298.46	261.15	149.23	813.30	55.85	
C.OFF SITE INFRA.(NODAL)											
Trunk roads	153.31										
Bund,pond & channel	37.00										
Sewer & water	174.49										
Solid waste	10.00										
Others	92.00										
% & phasing		0.10	.12		0.15	0.55	0.30	0.00			
TOTAL OFF SITE INF.	466.8	46.68	61.62	575.10	86.26	316.30	172.53	0.00	626.86	43.04	
D.ON PLOT DEVELOP.											
Nmb.plt U.Cost											
A1 3710 2000	74.20										2686
A2 5873 3450	202.62										4633
A3 4264 5350	228.12										7184
0 0	0.00										0
% & phasing		0.10	.12		0.00	0.35	0.40	0.25			
TOTAL ON PLO DEV.	504.94	50.49	66.65	622.09	0.00	217.73	248.84	155.52			
E.BUILDNG LOAN											
number amount											
A1 3710 1000	37.10										
A2 5873 2000	117.46										
A3 4264 3000	127.92										
% & phasing			0.02		0.00	0.15	0.40	0.45			
TOTAL LOANS	282.48		5.65	288.13	0.00	43.22	115.25	129.66			
F.COM.FACILITIES											
Primary & Hgh sch.	168.48										
Health center	48.96										
College	62.46										
	0.00										
Janata Bazar	20.00										
Community halls	12.00										
Other facilities	4.54										
% & phasing		0.10	.12		0.00	0.20	0.50	0.30			
TOTAL COM.FACILIT.	316.44	31.64	41.77	389.85	0.00	77.97	194.93	116.96	424.94		
G.CONNECTIONS											
Water	0.00										
Sewer	0.00										
% & phasing		0.05	0.12		0.15	0.38	0.32	0.15			
TOTALCONNECTIONS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
TOTAL	2309	196.81	266.60	2772	228.74	999.44	992.70	551.37			
% PRICE CONT PER YEAR					.075	.075	.075	.06			
TOTAL PRICE CONT/YEAR					17.16	155.54	240.53	174.69			
TOTAL PRICE CONT.				587.91							
TOTAL COMPONENT COST			rounded	3360							

1/ **All costs in this table are for September 1983. Project base costs in July 1984 prices are estimated to be 4% higher and are derived from but not directly linked to this table.**

BOMBAY URBAN DEVELOPMENT PROJECT

ANNEX 5

Costs, Land Use, and Phasing - Charkop-Kandivalli 1/ Total area = 51.40

CHSTC1 N73	Base Costs	Phys. cont.	Des&sup &mgmt.	TOTAL	PHASING 83/84	84/85	85/86	86/87	Costs to be recovered Inter.d.cons.= 0.09 Total	/m2	/unit
% & phasing		0.00	0.02	1.00							
A.LAND	51.40		1.03	52.43	52.43				57.15	11.12	
% & phasing		0.05	.12	0.35	0.53	0.12					
B.SITE PREPARATION	371.58	18.58	46.82	436.98	152.94	231.60	52.44	0.00	476.31	92.66	
B.ON SITE INFRA.											
Roads	97.62										
Drainage	0.00										
Sewerage	41.04										
Electricity	57.71										
Water supply	84.70										
Landscp.&refuse col	0.00	%	%								
% & phasing		0.10	.12	0.03	0.51	0.46	0.00				
TOTAL ON SITE INFRA	281.07	28.11	37.10	346.28	10.39	176.60	159.29	0.00	377.44	73.43	
C.OFF SITE INFRA.(NODAL)											
Trunk roads	30.61										
Drainage	119.39										
	0.00										
	0.00										
	0.00										
% & phasing		0.10	.12	0.00	0.30	0.70	0.00				
TOTAL OFF SITE INF.	150.00	15.00	19.80	184.80	0.00	55.44	129.36	0.00	201.43	39.19	
D.ON PLOT DEVELOP.											
Nmb.plt U.Cost											
A 1094 1900	20.79										2551
B&C 3901 4500	175.55										6043
0 0	0.00										0
0 0	0.00										0
% & phasing		0.10	.12	0.00	0.37	0.50	0.13				
TOTAL ON PLO DEV.	196.33	19.63	25.92	241.88	0.00	89.50	120.94	31.44			
E.BUILDING LOANS											
Nbr. loan/u											
plotA 1094 1000	10.94										
plotB 2308 1500	34.62										
plotC 1593 3000	47.79										
% & phasing			0.02	0.00	0.15	0.40	0.45				
TOTAL LOANS	93.35		1.87	95.22	0.00	14.28	38.09	42.85			
F.COM.FACILITIES											
Primary schools	52.08										
Health center	15.14										
College	19.21										
	0.00										
market	4.64										
Community halls	3.71										
Other facilities	1.53										
% & phasing		0.10	.12	0.00	0.20	0.50	0.30				
TOTAL COM.FACILIT.	96.31	9.63	12.71	118.65	0.00	23.73	59.33	35.60	129.33		
G.CONNECTIONS											
Water	0.00										
Sewer	0.00										
% & phasing		0.05	0.12	0.15	0.38	0.32	0.15				
TOTALCONNECTIONS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
TOTAL	1240	90.95	145.24	1476	215.76	591.15	559.44	109.89			
% PRICE CONT PER YEAR					.075	.075	.075	.06			
TOTAL PRICE CONT/YEAR					16.18	92.00	135.55	34.82			
TOTAL PRICE CONT.				278.55							
TOTAL COMPONENT COST			rounded	1755	Rs.lacks						
				1754	0						

1/ All costs in this table are for September 1983. Project base costs in July 1984 prices are estimated to be 4% higher, are derived from but not directly linked to this table.

ANNEX 6

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT UNDER ALIS PROGRAM
LAND INFRASTRUCTURE SERVICING PROJECTS
PROPOSED STANDARDS

COMPONENT	UTILITIES SERVICING STANDARDS	LAYOUT AND CONSTRUCTION STANDARDS
Main Circulation	All households to be within 0.5km of a bus route connecting to the city transport network.	ROWs of 11m to 15m with initially a 7m wide graveled asphalt surface on a 2 course metal foundation of 34 cms consolidated thickness. Remainder of ROW for drains footpath and service.
Local Circulation	All households to be within 55 meters of a road capable of carrying a service vehicle (such as a garbage truck)	ROWs of 9m with a 6m wide gravelled asphalt surface on 2 courses of metal foundation of 34 cms consolidated thickness. Remainder of ROW for drains footpaths and services.
Pedestrian Access	All households not on roads to have access to a paved footpath.	ROWs of 2m, 3m and 6m with 1m or 1.5m wide grouted asphalt surface on 2 courses of metal foundation of 26 cms consolidated thickness.
Water Supply	Metered piped water supply to all plots giving 90 lcd minimum and 180 lcd to HIG plots.	Underground water tank and elevated service reservoir including pump house and pumping equipment sized to serve service area.
Water Reticulation	Supply at regular pressure for at least 2 hours per day.	Capacity 1 day supply. 250 mm down to 80mm cast iron mains to supply neighborhoods. 15mm-50mm galvanized iron pipe to supply areas within neighborhoods.
Sewerage	Piped sewer connection and squatting slab to all plots except HIG plots where a sewer connection only will be provided.	Stoneware pipes 150mm-230cm diameter collecting from clusters and larger individual plots and leading to main gravity sewers in ROWs. Main drains of 300m and larger would be of concrete pipes. Manholes at 30m centers.
Drainage	Storm water drains adjacent to all footpaths serving all households.	Open channel with stone pitched gutter and sides or open channel with 23cm diameter half round stonewater gutter and concrete block sides.
Electricity	Main electricity connection to meter cupboard in all clusters.	Power cable in streets laid underground to meter cupboard in each cluster or society block.
Street Lighting	Reasonable level of illumination for security lighting.	10m high poles at 30 meter centers with MV lamp and switchgear on main roads (9m ROW upwards).
Garbage Boxes	Collection Service within 55m of all dwellings.	1 cm and 2 cm meter concrete garbage boxes with self closing lids.

ANNEX 7

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Slum Upgradation Program - Planning Standards

LOCAL CIRCULATION	All dwellings to be within 55 meters of a 6m ROW road.
ACCESS	All dwellings not on roads to have direct access to a footpath.
WATER	Minimum provision of 1 metered standpipe (45 lpcd) for 15 households.
SANITATION	1 wc per 10 households absolute minimum rising to 1 WC per 4 households in areas with vacant space.
DRAINAGE	A storm water/sullage drain disposal point adjacent to all dwellings.
AMENITY	All plots to be within 1 km of primary school.
STREET LIGHTING	On major roads (9m ROW) only.
SOLID WASTE (Ward Services)	Service to be provided (bins and collection) on all local circulation roads, i.e. within 55 m of all dwellings.
SOLID WASTE/DRAIN DRAIN CLEARING (Local Services)	1 garbage bin for 15 households organized on a 'cooperative' basis.

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Local Government Finance Administration and Services (LOGFAS)
Cost Details (July 1984 Prices, Rs Crores)

	Land	Civil Works	Plant & Equipment	Technical Assistance 1/	TOTAL
A. BMC					
1. LISP Site Maintenance	0.06	1.30	0.88	-	2.24
2. Off-site Maintenance	-	0.69	1.30	0.02	2.01
3. Sewer Cleansing Equip.	-	-	0.85	-	0.85
4. SUP Site Maintenance	0.07	0.74	1.10	-	1.91
5. Mahalasmi T.S.	-	2.16	1.89	0.02	4.07
6. Road & Drainage Equip.	-	-	0.44	-	0.44
	0.13	4.89	6.46	0.04	11.52
B. NBMC					
1. LISP Site Maintenance	0.02	0.49	0.33	-	0.84
2. LISP N.Bombay Workshop	0.05	0.34	0.59	0.01	0.99
3. Sewer Cleaning Equip.	-	-	0.43	-	0.43
4. Unspecified	-	0.62	0.21	-	0.83
	0.07	1.45	1.56	0.01	3.09
C. TMC					
1. LISP Site Maintenance	0.02	0.24	0.16	-	0.42
2. Workshop & Equipment	-	0.17	0.32	0.01	0.50
3. Sewer Cleaning Equip.	-	-	0.21	-	0.21
4. Unspecified	-	0.30	0.40	-	0.70
	0.02	0.71	1.09	0.01	1.83
D. KMC					
1. LISP Site Maintenance	0.02	0.24	0.16	-	0.42
2. Workshop & Equipment	0.02	0.17	0.30	0.01	0.50
3. Sewer Cleaning Equip.	-	-	0.21	-	0.21
4. Unspecified	-	1.25	0.42	-	1.67
	0.04	1.66	1.09	0.01	2.80
	0.26	8.71	10.20	0.07	19.24

1/ Not included in TATE.

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Local Government Finance Administration & Services (LOGFAS) Equipment List 1/

REF. No. 2/	ITEM	BMC	NBMC	TMC	KMC	TOTAL	Cost Per Unit Rs lakhs
A1	400 cf.Collection Vehicles	17	8	4	4	33	2.8
	Hand Tools and Containers	-	-	-	-	-	
A2	Bulldozers 90 Bhp	3	1	1	1	6	12.0
	Excavators 103 hp	3	1	1	1	6	12.0
	Mechanical Sweepers	2	1	1	1	5	23.4
	Small Dump Trucks	5	2	1	1	9	1.6
A3	Power Rodding Machines	6	3	2	2	13	1.2
	Jetting Machines	2	1	1	1	5	13.5
	Vacuum Units	3	1	1	1	6	10.4
	Trucks 5/7 ton	3	2	1	1	7	2.4
	Sewer Plug/Compressor Sets	3	1	1	1	6	3.4
	Blowers	2	1	1	1	5	0.7
A4	Small Dump Trucks	6	-	-	-	6	1.6
	Collection Vehicles	20	-	-	-	20	2.8
	Hand Tools and Containers	-	-	-	-	-	
A5	Weigh Bridge	3	-	-	-	3	3.6
	Conveyor	4	-	-	-	4	4.8
	Bunker Compactors	4	-	-	-	4	12.0
	Trailers	15	-	-	-	15	3.6
	Prime Mover	12	-	-	-	12	4.8
A6	Road Roller 5/7 ton	1	-	-	-	1	1.0
	Medium Dumpers	3	-	-	-	3	2.9
	Tar Boiler (2 ton cap.)	1	-	-	-	1	0.2
	Asphalt Plant (8 ton/day)	1	-	-	-	1	22.9
	Jetting Vacuum Machines	2	-	-	-	2	3.6
A7	"Unspecified" Equipment	-					
	Road Roller 5/7 ton	-	1	1	1	3	1.0
	Medium Dumpers	-	3	3	3	9	2.9
	Tar Boiler	-	1	1	1	3	0.2
	Asphalt Plant	-	1	1	1	3	22.9
	Jetting Vacuum Machines	-	2	2	2	6	3.6

1/ July 1984 prices.
2/ Numbers refer to location and activities in ANNEX, Table 8.

ANNEX 10

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Technical Assistance, Training and Equipment (TATE)

A. Technical Assistance

	Person Months
MHADA	
Design and implementation of Organization Management and Finance Systems	75
CIDCO	
Design and implementation of improved estate management systems	25
BMRDA	
Expert advisors for the Technical Committee	50
Other shelter-related studies	25
TMC, KMC and NMBC	
Review of Development Control & Building Regulations	110
Expert advisors for TMC, KMC and NBMC	83
TMC, KMC and NBMC	
Design and implementation of Organization, Management, Finance and Development Control systems	75
Total	468

COSTS

	Rs Crore (July 1984 prices) Total	
A. Technical Assistance, 468 person months, as above (including about 7 person months of foreign assistance)	.96	
B. Training of implementing agencies' staff in organization and management of urban systems, project preparation, financial analysis and accounting (of which BMRDA: Rs 0.19 crores) and related equipment	.63	
Total	1.59	1/

1/ Does not include Rs 0.07 crores (base cost) of technical assistance and training embodied in the LOGFAS component.

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Detailed Project Cost Estimates

LAND INFRASTRUTURE SERVICING PROGRAM(LISP)

	BMC		T/KMC		CIDCO		TOTAL	FOREIGN COST		LOCAL		TAX COMPONENT	
LAND AREA(Ha)	280.00		180.00		145.63		605.63			COST			
	UNIT COST	RS CRORE	UNIT COST	RS CRORE	UNIT COST	RS CRORE	RS CRORE	%	RS CRORE	RS CRORE	%	RS CRORE	
A.LAND	10.00	2.80	10.00	1.80	4.00	0.58	5.18			5.18			
B.SITE PREPARATION	75.18	21.05	37.60	6.77	5.28	0.77	28.59	5.00	1.43	27.16	5.00	1.36	
C.ON SITE INFRASTRUCT	56.87	15.92	56.87	10.24	43.27	6.30	32.46	10.00	3.25	29.21	10.00	2.92	
D.OFF SITE INFRASTRUC	35.45	9.93	35.45	6.38	33.35	4.86	21.17	10.00	2.12	19.05	10.00	1.90	
E.ON PLOT DEVELOPMENT	39.73	11.12	39.73	7.15	36.07	5.25	23.53	5.00	1.18	22.35	7.50	1.68	
F.SOCIAL FACILITIES	15.60	4.37	15.60	2.81	22.57	3.29	10.46	5.00	0.52	9.94	7.50	0.75	
G.BUILDING LOANS	18.89	5.29	18.89	3.40	20.13	2.93	11.62			11.62			
H.EQUIPMENT													
I.TECH ASST/CONS													
SUB TOTAL		70.48		38.54		23.98	133.01		8.49	124.52		6.61	
J.PHYSICAL CONT @10%		6.24		3.33		2.05	11.62		0.85	10.77		0.86	
K.DESIGN & SPN	.125	8.58		4.58		2.81	15.98		1.17	14.81		1.18	
SUB TOTAL		85.30		46.46		28.84	160.61		10.51	150.10		10.65	
L.PRICE CONTINGENCIES													
1.ON A		0.39		0.26		0.00	0.65			0.65			
1.ON B		4.17		2.09		0.14	6.41		0.32	6.08		0.30	
2.ON C		4.29		3.69		1.17	9.15		0.92	8.24		0.82	
3.ON D		2.53		2.09		0.88	5.50		0.55	4.95		0.50	
4.ON E		3.09		2.71		0.98	6.78		0.34	6.44		0.48	
5.ON F		1.32		0.85		0.71	2.87		0.14	2.73		0.20	
5.ON G		1.67		1.44		1.18	4.28			4.28		0.00	
7.ON H													
8.ON I													
TOTAL PRICE CONTG		17.46		13.12		5.07	35.64		2.27	33.38		2.31	
TOTAL COST		102.76		59.58		33.91	196.25		12.78	183.47		12.96	

SLUM UPGRADNG PROGRAM (SUP)

	FOR 100 THOUSAND HSHLDTAX COMPONENT					
	UNIT COST	TOTAL RS CRORE	FOREIGN COST %	FOREIGN COST RS CRORE	LOCAL COST	LOCAL TAX COMPONENT %	RS CRORE
LAND							
CIVWKS:BMC		100.00	1.00			1.00	
K/NBMC			0.21	5.00	0.01	0.20	5.00	0.01
TMC		1248	12.48	10.00	1.25	11.23	10.00	1.12
EQIMNT:BMC		208.00	2.08	10.00	0.21	1.87	10.00	0.19
K/NBMC		83.20	0.83	10.00	0.08	0.75	10.00	0.07
TMC		2080	20.80			20.80		
TATE: ALL								

LOCAL GOVT FINANCE&ADMN (LOGFAS)

	COST CRORE	FOREIGN COST %	FOREIGN COST RS CRORE	LOCAL COST CRORE	TAX COMPONENT %	RS CRORE
LAND	0.26			0.26		
CIVWKS:BMC	4.89	10.00	0.49	4.40	10.00	0.44
K/NBMC	1.65	10.00	0.17	1.49	10.00	0.15
TMC	3.11	10.00	0.31	2.80	10.00	0.28
EQIMNT:BMC	6.47	30.00	1.94	4.53	25.00	1.13
K/NBMC	2.64	30.00	0.79	1.85	25.00	0.46
TMC	1.10	30.00	0.33	0.77	25.00	0.19
TATE: ALL	0.07	40.00	0.03	0.04		
	20.20		4.06	16.14		2.66
	1.99		0.40	1.58		0.27
.085	2.28		0.29	1.99		0.19
	24.47		4.75	19.72		3.11
	0.05			0.05		
	3.09		0.31	2.78		0.28
	3.16		0.95	2.21	25.00	0.55
	0.01		0.00	0.01		
	6.32		1.26	5.05		0.83
	30.78		6.01	24.77		3.94

TECH.ASST.,TRAINING&EQUIPMNT(TATE)

715 MAN MONTHS

	UNIT COST	TOTAL RS CRORE	FOREIGN COST %	FOREIGN COST RS CRORE	LOCAL COST CRORE	TAX COMPONENT %	RS CRORE	TOTAL
		0.10	50.00	0.05	0.05	25.00	0.01	
	20800	1.49	10.00	0.15	1.34	5.00	0.07	
		1.59		0.20	1.39		0.08	192.19
								15.17
								20.41
		1.59		0.20	1.39		0.08	227.76
								0.00
								0.91
								9.56
								13.30
								6.19
								7.06
								2.87
								11.17
								3.16
		0.34		0.04	0.30			0.35
		0.34		0.04	0.30			54.57
		1.93		0.24	1.68			282.33

INDIA

ANNEX 12

BOMBAY URBAN DEVELOPMENT PROJECT

Project Phasing and Annual Financing Requirements
(Rs Crore)

TABLE 6 PHASING AND ANNUAL FINANCE REQUIREMENTS

	COST	PHYS CT D&S	TOTAL	PRICE CONTINGENCY & PHASING FACTORS 83/84	84/85	85/86	86/87	87/88	88/89	89/90	TOTAL ANNUAL FINANCING REQUIREMENT (Y/Es (MARCH31) PRICE CONTING	83/84	84/85	85/86	86/87	87/88	88/89	89/90	TOTAL COST
BMC AREA:				0.04	0.13	0.24	0.35	0.45	0.53										
LAND	2.80		2.80	0.04	0.26	0.35	0.35	0.00	0.00	0.00	0.39	0.11	0.76	1.11	1.21	0.00	0.00	0.00	3.19
SITE PREP	21.05	5.00	26.05	0.05	0.20	0.35	0.30	0.10	0.00	0.00	4.17	1.30	5.42	10.34	9.66	3.51	0.00	0.00	30.22
ON SITE	15.92	3.78	19.70	0.00	0.05	0.35	0.35	0.25	0.00	0.00	4.29	0.00	1.02	7.82	8.52	6.63	0.00	0.00	24.00
OFF SITE	9.93	2.36	12.28	0.00	0.11	0.33	0.33	0.23	0.00	0.00	2.53	0.00	1.41	4.60	5.01	3.81	0.00	0.00	14.82
ON PLOT	11.12	2.64	13.77	0.00	0.10	0.30	0.33	0.20	0.05	0.02	3.09	0.00	1.43	4.68	5.61	3.71	1.00	0.42	16.85
COMMUNITY FACILITIES	4.37	1.04	5.41	0.00	0.00	0.35	0.35	0.20	0.10	0.00	1.32	0.00	0.00	2.14	2.34	1.46	0.78	0.00	6.72
BUILDING LOAN	5.29		5.29	0.00	0.00	0.20	0.25	0.25	0.20	0.10	1.67	0.00	0.00	1.20	1.63	1.78	1.53	0.81	6.96
TOTAL BMC AREA	70.48	14.82	85.30								17.46	1.41	10.04	31.89	33.98	20.89	3.31	1.23	102.76
T/KMC AREA:																			
LAND	1.80		1.80	0.00	0.26	0.40	0.34	0.00	0.00	0.00	0.26	0.00	0.49	0.82	0.76	0.00	0.00	0.00	2.06
SITE PREP	6.77	1.61	8.37	0.00	0.00	0.30	0.30	0.40	0.00	0.00	2.09	0.00	0.00	2.85	3.10	4.51	0.00	0.00	10.46
ON SITE	10.24	2.43	12.67	0.00	0.00	0.20	0.30	0.30	0.20	0.00	3.69	0.00	0.00	2.87	4.70	5.12	3.67	0.00	16.35
OFF SITE	6.38	1.52	7.90	0.00	0.00	0.25	0.35	0.30	0.10	0.00	2.09	0.00	0.00	2.24	3.42	3.19	1.14	0.00	9.99
ON PLOT	7.15	1.70	8.85	0.00	0.00	0.10	0.40	0.25	0.25	0.00	2.71	0.00	0.00	1.00	4.37	2.98	3.20	0.00	11.56
COMMUNITY FACILITIES	2.81	0.67	3.47	0.00	0.00	0.40	0.25	0.25	0.10	0.00	0.85	0.00	0.00	1.58	1.07	1.17	0.50	0.00	4.32
BUILDING LOAN	3.40		3.40	0.00	0.00	0.00	0.10	0.30	0.30	0.30	1.44	0.00	0.00	0.00	0.42	1.37	1.48	1.57	4.84
TOTAL T/KMC AREA	38.54	7.92	46.46								13.12	0.00	0.49	11.35	17.84	18.34	9.99	1.57	59.58
CIDCO AREA:																			
LAND	0.58		0.58	1.00							0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.58
SITE PREP	0.77	0.18	0.95	0.00	0.19	0.46	0.35	0.00	0.00	0.00	0.14	0.00	0.19	0.50	0.41	0.00	0.00	0.00	1.10
ON SITE	6.30	1.50	7.80	0.01	0.19	0.45	0.35	0.00	0.00	0.00	1.17	0.08	1.54	3.98	3.37	0.00	0.00	0.00	8.97
OFF SITE	4.86	1.15	6.01	0.00	0.17	0.55	0.28	0.00	0.00	0.00	0.88	0.00	1.06	3.75	2.08	0.00	0.00	0.00	6.89
ON PLOT	5.25	1.25	6.50	0.00	0.19	0.46	0.35	0.00	0.00	0.00	0.98	0.00	1.28	3.39	2.81	0.00	0.00	0.00	7.48
COMMUNITY FACILITIES	3.29	0.78	4.07	0.00	0.13	0.43	0.37	0.07	0.00	0.00	0.71	0.00	0.55	1.98	1.86	0.38	0.00	0.00	4.76
BUILDING LOAN	2.93		2.93	0.00	0.00	0.00	0.20	0.25	0.30	0.25	1.18	0.00	0.00	0.00	0.72	0.99	1.27	1.13	4.11
TOTAL CIDCO	23.98	4.86	28.84								5.07	0.66	4.63	13.59	11.26	1.37	1.27	1.13	33.91
TOTAL LISP	133.01	27.60	160.61								35.64	2.08	15.15	56.83	63.08	40.61	14.58	3.92	196.25
SUP:																			
LAND	1.00		1.00	0.00	0.02	0.33	0.55	0.10	0.00	0.00	0.21	0.00	0.02	0.37	0.68	0.13	0.00	0.00	1.21
SITE PREPARATION	0.21	0.05	0.26	0.00	0.02	0.26	0.50	0.20	0.00	0.00	0.06	0.00	0.01	0.10	0.17	0.03	0.00	0.00	0.31
ON SITE	12.48	2.96	15.44	0.00	0.02	0.18	0.35	0.40	0.05	0.00	4.15	0.00	0.32	3.15	6.68	8.32	1.12	0.00	19.59
OFF SITE	2.08	0.49	2.57	0.00	0.02	0.16	0.35	0.40	0.05	0.00	0.69	0.00	0.05	0.53	1.11	1.39	0.19	0.00	3.26
REHABILITATION	0.83	0.20	1.03	0.00	0.02	0.18	0.35	0.40	0.05	0.00	0.28	0.00	0.02	0.21	0.45	0.55	0.07	0.00	1.31
BUILDING LOAN	20.80		20.80	0.00	0.00	0.10	0.30	0.30	0.20	0.10	6.89	0.00	0.00	2.36	7.71	8.40	6.02	3.19	27.69
TOTAL SUP	37.40	3.71	41.11								12.27	0.00	0.42	6.71	16.80	18.84	7.40	3.19	53.37
LOGFAS:																			
LAND	0.26		0.26	0.00	0.00	0.50	0.50	0.00	0.00	0.00	0.05	0.00	0.00	0.15	0.16	0.00	0.00	0.00	0.31
CIVIL WORKS	9.65	2.29	11.94	0.00	0.00	0.30	0.35	0.20	0.15	0.00	3.09	0.00	0.00	4.06	5.17	3.22	2.59	0.00	15.04
EQUIPMENT	10.21	1.98	12.19	0.00	0.00	0.30	0.30	0.30	0.10	0.00	3.16	0.00	0.00	4.15	4.52	4.92	1.76	0.00	15.35
TECH ASST/CONSULTNCY	0.07		0.07	0.00	0.15	0.60	0.25	0.00	0.00	0.00	0.01	0.00	0.01	0.05	0.02	0.00	0.00	0.00	0.08
TOTAL LOGFAS	20.20	4.27	24.47								6.32	0.00	0.01	8.40	9.87	8.14	4.36	0.00	30.78
TATE:																			
TECH ASST/CONSULTNCY	1.59		1.59	0.00	0.10	0.30	0.35	0.25	0.00	0.00	0.34	0.00	0.17	0.54	0.69	0.53	0.00	0.00	1.93
TOTAL PROJECT	192.19	35.57	227.76								54.57	2.08	15.75	72.49	90.44	68.12	26.34	7.12	282.33

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BOMBAY URBAN DEVELOPMENT PROJECT

ANNEX 13

(Project Sources and Applications of Funds (Rs Crore)

MHADA									
LISPBB	83/84	84/85	85/86	86/87	87/88	88/89	89/90	TOTAL	
CONSTRUCTION RATE ha	0.00	28.00	88.20	88.20	56.00	14.00	5.60	280.00	
UNIT								RS.	
SOURCES OF FUNDS: PRICE								CRORE	
PLOT SALES HIG& COMM 103.50	0.00	3.01	10.35	11.28	7.81	2.10	0.89	35.44	
DOWNPAYMENTS 17.35	0.00	0.51	1.73	1.89	1.31	0.35	0.15	5.94	
MONTHLY RCT12%,20yrs 17.20		0.00	0.50	2.22	4.10	5.39	5.74	17.95	
LISPTK ha	0.00	0.00	18.00	72.00	45.00	45.00	0.00	180.00	
PLOT SALES HIG& COMM 54.89	0.00	0.00	1.12	4.88	3.33	3.58	0.00	12.91	
DOWNPAYMENTS 17.79	0.00	0.00	0.36	1.58	1.08	1.16	0.00	4.18	
MONTHLY RCT12%,20yrs 19.66		0.00	0.00	0.40	2.15	3.34	4.62	10.52	
SUP:MHADA hh		0	8000	24000	24000	16000	8000	80000	
DOWNPAYMENTS 206.00	0.00	0.00	0.19	0.61	0.67	0.48	0.25	2.19	
MONTHLY RCT:Plot 244.92	0.00	0.00	0.00	0.22	0.95	1.74	2.31	5.22	
MONTHLY RCT:HIL 245.16	0.00		0.00	0.00	0.24	1.03	1.89	3.16	
SUB TOTAL:SOURCES	0.00	3.52	13.75	20.25	14.19	7.66	1.29	60.66	
GOM LOAN	1.41	5.89	23.88	32.29	29.39	8.99	4.06	105.92	
GOM GRANTS	0.00	0.08	0.27	0.34	0.27	0.00	0.00	0.96	
STOTAL SOURCES	1.41	9.50	37.91	52.88	43.84	16.65	5.35	167.54	
TOTAL SOURCES(incl.yrly rct)	1.41	9.50	38.41	55.72	51.28	28.16	19.91	204.39	
APPLICATIONS									
LISP	1.41	9.12	32.68	39.99	29.61	10.88	2.80	126.49	
SUP	0.00	0.30	4.95	12.55	13.96	5.77	2.55	40.08	
LOGFAS									
TATE	0.00	0.08	0.27	0.34	0.27	0.00	0.00	0.96	
SUB TOTAL APPLICATIONS	1.41	9.50	37.91	52.88	43.84	16.65	5.35	167.54	
LOAN REPAYMENTS						12.65	13.08	25.72	
TOTAL APPLICATIONS	1.41	9.50	37.91	52.88	43.84	29.30	18.43	193.26	
SURPLUS / DEFICIT	0.00	0.00	0.50	2.84	7.44	-1.14	1.48	11.12	
CUMULATIVE		0.00	0.50	3.34	10.78	9.64	11.12		

CIDCO								
LISP	83/84	84/85	85/86	86/87	87/88	88/89	89/90	TOTAL
CONSTR RATE	0.00	27.67	66.99	50.97	0.00	0.00	0.00	145.63
UNIT								
PRICE								
SALES 610.35	0.00	1.69	4.09	3.11	0.00	0.00	0.00	8.89
Dn.Pnt 233.44	0.00	0.65	1.10	1.38	0.59	0.00	0.00	3.72
MlyRct 223.14		0.00	0.62	2.11	3.25	3.25	3.25	12.48
SUB TOTAL	0.00	2.33	5.19	4.49	0.59	0.00	0.00	12.61
GOM LOAN	0.66	2.29	8.40	6.77	0.78	1.27	1.13	21.30
GOM GRANT	0.00	0.01	0.04	0.05	0.04	0.00	0.00	0.14
STOTALSOURCES	0.66	4.64	13.63	11.31	1.41	1.27	1.13	34.05
TOTAL SOURCES	0.66	4.64	14.25	13.42	4.66	4.52	4.37	46.53
APPLICATIONS:								0.00
LISP	0.66	4.63	13.59	11.26	1.37	1.27	1.13	33.91
TATE	0.00	0.01	0.04	0.05	0.04	0.00	0.00	0.14
STOTAL APPL.	0.66	4.64	13.63	11.31	1.41	1.27	1.13	34.05
LOAN REPAY.						2.64	2.76	5.40
TOTAL APPL.	0.66	4.64	13.63	11.31	1.41	3.91	3.88	39.45
SUR/DEF	0.00	0.00	0.62	2.11	3.25	0.61	0.49	7.08
CUMULATIVE		0.00	0.62	2.73	5.98	6.59	7.08	

BMC	83/84	84/85	85/86	86/87	87/88	88/89	89/90	TOTAL
SUP:BMC hh		0	2000	6000	6000	4000	2000	20000
DOWNPAYMENT		0.00	0.05	0.15	0.17	0.12	0.06	0.55
MLY RCT:Plot		0.00	0.00	0.06	0.24	0.44	0.58	1.30
MLY RCT:HIL			0.00	0.00	0.05	0.20	0.34	0.59
SUB TOTAL	0.00	0.00	0.05	0.15	0.17	0.12	0.06	0.55
GOM LOAN	0.00	1.54	13.34	17.17	14.64	4.79	0.58	52.05
GOM GRANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STOTALSOURCES	0.00	1.54	13.38	17.32	14.81	4.91	0.64	52.60
TOTAL SOURCES	0.00	1.54	13.38	17.38	15.09	5.54	1.56	54.49
APPLICATIONS:								
LISP:OS & CF	0.00	1.41	6.74	7.35	5.26	0.78	0.00	21.54
SUP:BMC	0.00	0.07	1.24	3.14	3.49	1.44	0.64	10.02
LOGFAS	0.00	0.01	4.88	5.72	4.67	2.50	0.00	17.78
SUP:OFFSITE	0.00	0.05	0.53	1.11	1.39	0.19	0.00	3.26
STOTAL APPL.	0.00	1.54	13.38	17.32	14.81	4.91	0.64	52.60
LOAN REPMNT.						6.35	6.41	12.75
TOTAL APPL.	0.00	1.54	13.38	17.32	14.81	11.26	7.05	65.35
SUR/DEF	0.00	0.00	0.00	0.06	0.29	-6.72	-5.49	-10.86
CUMULATIVE	0.00	0.00	0.00	0.06	0.34	-6.37	-10.86	

THANE MUNICIPAL CORPORATION	83/84	84/85	85/86	86/87	87/88	88/89	89/90	TOTAL	KMC/OTH TOTAL
SOURCES									
LOAN	0.00	0.00	3.60	4.24	3.85	1.72	0.00	13.41	13.90
	0.00	0.02	0.08	0.10	0.08	0.00	0.00	0.29	0.53
STOTALSOURCES	0.03	3.68	4.34	3.93	1.72	0.00	13.70		14.43
APPLICATIONS									
OFFSITE	0.00	0.00	1.12	1.71	1.60	0.57	0.00	4.99	4.99
COMFAC	0.00	0.00	0.79	0.54	0.59	0.25	0.00	2.16	2.16
LOGFAS	0.00	0.00	1.70	1.99	1.67	0.90	0.00	6.26	6.75
TATE	0.00	0.02	0.08	0.10	0.08	0.00	0.00	0.29	0.53
STOTAL	0.00	0.03	3.68	4.34	3.93	1.72	0.00	13.70	14.43
Ln.Rep						1.64	1.64	3.27	1.47
TOTAL APPL		0.03	3.68	4.34	3.93	3.36	1.64	16.98	15.90
S/D	0.00	0.03	3.68	4.34	3.93	0.08	-1.64	10.43	12.96
Cum.	0.00	0.03	3.71	8.05	11.98	12.07	10.43		12.96

SUMMARY OF SOURCES AND APPLICATIONS

SOURCES	
LISP	
Sales	57.23
Dn.Pnt	13.85
MlyRct	40.94
SUP	
Dn.Pnt	2.74
RctPlt	6.52
RctHIL	3.75
	125.04
SUB TOTAL	73.82
GOM LOAN	206.58
GOM GRANTS	1.93
STOTAL SOURCE	282.33
TOTAL SOURCES	361.68
APPLICATION	
LISP	196.25
SUP	53.37
LOGFAS	30.78
TATE	1.93
STOTAL APPL.	282.33
LOAN REPAY.	48.62
TOTAL APPL.	330.94
SUR/DEF	30.73
APPL+SUR	361.68

ANNEX 14

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Quarterly Disbursement Schedule

IDA Fiscal Year	Quarter Ending	Quarterly Disbursements US$ '000	Cumulative Disbursements US$ '000	% of Total
1985	June 30, 1985	5,500	5,500	7
1986	September 30, 1985	1,800	7,300	5
	December 31, 1985	7,700	15,000	11
	March 31, 1986	8,000	23,000	17
	June 30, 1986	8,700	31,700	23
1987	September 30, 1986	9,100	40,800	30
	December 31, 1986	11,700	52,500	38
	March 31, 1987	11,200	63,700	46
	June 30, 1987	10,400	74,100	54
1988	September 30, 1987	9,900	84,000	61
	December 31, 1987	9,400	93,400	68
	March 31, 1988	9,000	102,400	74
	June 30, 1988	8,300	110,700	80
1989	September 30, 1988	8,000	118,700	86
	December 31, 1988	3,900	122,600	89
	March 31, 1989	3,800	126,400	92
	June 30, 1989	3,500	129,900	94
1990	September 30, 1989	3,400	133,300	97
	December 31, 1989	1,300	134,600	98
	March 31, 1990	1,200	135,800	98
	June 3, 1990	1,100	136,900	99
1991	September 30, 1990	1,100	138,000	100

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Implementing Organizations

BMRDA

Background

1. BMRDA was established in 1973 with responsibilities for four main functions: (a) planning the BMR physical development; (b) enforcing development regulations in the BMR; (c) implementing projects of significance to regional development; and (d) financing development projects of regional significance. BMRDA was created to plan and coordinate multi-sector, multi-agency programs and projects in several regions and administrative jurisidictions of the BMR.

2. Until recently, BMRDA had tended to focus on project identification, and implementation for its own account in projects such as the Bandra-Kurla commercial complex. It has also championed the cause of projects implemented by other agencies, such as the removal of the vegetable markets from downtown Bombay to New Bombay premises constructed by CIDCO. But these achievements in project implementation have been at the expense of neglecting BMRDA's planning function, for which a political and institutional basis needed to be developed. A Bank-assisted Bombay Urban Transport Project was specifically aimed at strengthening the newly-formed BMRDA's planning functions. But the small size of the project, its narrow substantive and locational range, the new and uncertain role of BMRDA in regional planning and the need to test the relationship between BMC and BMRDA interests and responsibilities, limited BMRDA's early efforts to make an impact on plans and programs for the BMR.

3. BMRDA's internal organization into three semi-autonomous functional Boards (covering housing, transport and water management) with a small central planning unit in a subordinate role, also hampered its efforts to develop as a metropolitan-wide planning authority. It is also a moot point whether positioning BMRDA under GOM's Planning or Finance Departments, rather than Urban Development, would enhance its multi-sectoral planning activities.

4. With a view to making BMRDA a more compact and effective decision-making body, particularly for planning coordinating and monitoring the implementation of regional programs such as ALIS/BUDP, GOM reorganized BMRDA in July 1983. The chief features of the reorganization are: (i) a major reduction in the size of BMRDA's Metropolitan Authority from 42 to 17 members under the chairmanship of the Minister for Urban Development, with the BMRDA Metropolitan Commissioner as member Secretary; (ii) the consolidation of the former Standing and Executive Committees into a single Executive Committee under the chairmanship of the Chief Secretary, GOM; (iii) the abolition of BMRDA's three functional Boards and transfer of their functions to the Executive Committee; and (iv) the internal reorganization of BMRDA in four main divisions, including a strengthened Planning Division (Chart 5). The reorganization establishes a clear line of responsibility for BMRDA's functions

from the Minister of Urban Development and the Metropolitan Authority, to the Executive Committee and to the new functional divisions of BMRDA. The arrangements for a smaller Authority and a single Executive Committee should be more effective than the previous arrangements.

MHADA

Background

5. MHADA is an apex public authority established in 1977 to reorganize the activities of four independent statutory bodies (for Bombay, Pune, Aurangabad and Nagpur), which, with the Konkan Board created in 1981, operate in regions of Maharashtra. MHADA is under the GOM Department of Housing and is the principal agency responsible for statewide housing and area development schemes. The MHADA governing authority consists of a President, Vice President and seven other members, all appointed by GOM. The Vice President is the Chief Executive Officer of MHADA and an ex-officio Secretary to GOM. A Chief Engineer, Secretary, Financial Controller and Deputy Executive Officer chiefly assist the Vice President in the daily management of MHADA. MHADA's main activities are: (a) Housing and land development; (b) Repair and reconstruction work on chawls in Bombay and (c) Slum improvement works. In the BMR, excluding New Bombay, these activities are performed by MHADA's Bombay Housing and Area Development Board (BHADB), the largest in terms of value of works of the five regional boards under MHADA's control.

Past Performance

6. MHADA's development expenditure in the BMR (through BHADB) is indicated below:

	1978/79	1979/80	1980/81	1981/82	1982/83
	----------	----------	Rs Crore	----------	----------
Housing and Area Development Schemes	7.8	6.5	8.6	5.6	6.3
Repair & Reconstruction Chawls	9.6	8.5	12.9	13.3	14.5
Slum Improvement Work	2.4	1.1	2.1	2.5	2.6
TOTAL	19.8	16.1	23.6	21.4	23.4

Housing and area development work has recently shrunk to about a quarter of BHADB's overall program. BHADB's housing and area development activity has been running under capacity in recent years due to lack of land, shortage of cement and lack of water supply to available lands. The slum improvement work has covered a large number of households at a very low standard, but does not provide tenure or maintenance or recover costs.

7. Of the 2,000-3,000 housing units produced each year in the BMR a substantial proportion (40-50% of units) has been for low income families

(EWS and LIG families with Rs 600 monthly income or less). However, only households with incomes at the top of the EWS and LIG income categories can afford units costing about Rs 10,000 to 17,000 despite subsidized interest rates of 7% and 8% per annum. Also, as the costs of MIG units (for households with monthly incomes of Rs 600-1500) and HIG units (for households with monthly income over Rs 1500) ranged from Rs 35,000 - 100,000, 60 to 70% of investment has been for a small number of MIG and HIG households.

CIDCO

Background

8. The City and Industrial Development Corporation of Maharashtra (CIDCO) was established in 1970. In 1971 it was designated as the New Town Development Authority for New Bombay. CIDCO's prime objective is the development of New Bombay, with an ultimate population of 2.4 million, as a means of reducing the growth in the BMC. Its principal activities are: (a) land and infrastructure development; (b) construction of homes, community facilities, and commercial centers; (c) promotion of industrial, commercial, and office activities in the New Bombay area; (d) provision of public transport and communications within New Bombay and between New Bombay and other areas; (e) maintenance of infrastructure and provision of land services such as solid waste removal and disposal.

9. New Bombay's economic base consists of two industrial areas administered by the Maharashtra Industrial Development Corporation (MIDC): the Thana-Belapur Industrial Zone and the Taloja Industrial Estate, currently employing about 41,000 workers. The shifting of wholesale markets from Bombay to New Bombay is also being implemented. The onion and potato markets have already been moved and other agricultural markets will be moved over the next 3 to 4 years to Turbhe in New Bombay. A new steel market being developed near Panvel will be ready for occupation by 1983/84. These wholesale market shifts will transfer some 40,000 jobs to New Bombay. Office developments in Belapur will provide a further 20,000 office jobs over the next three to four years. CIDCO's main residential development has been in five zones - Vashi, Nerul, Belapur, Kalamboli, and Panvel, where a total of 10,000 housing units have been completed and a further 23,000 are under construction. With the quickening pace of development, it is estimated that the population of New Bombay, including persons in BUDP sites, will reach over half a million by 1989/90.

Bombay Municipal Corporation

Background

10. The Bombay Municipal Corporation (BMC), established in 1888, is the largest Municipal Corporation in India, and among the largest local governments in the world. It administers services to some 8 million people

(Map 1). The BMC council consists of 140 elected representatives and is responsible for a wide range of civic services, including water supply and sewerage, bus transport, electricity supply, public health and medical services, solid waste collection, education, roads, traffic control and slum improvement. The overall budget for all BMC's activities amounted to Rs 630 crore in 1982/83 (Rs 465 crore on revenue expenditure and Rs 165 crore on capital expenditure). BMC is the main implementing agency for the Bank/IDA financed Bombay Water Supply and Sewerage Projects I and II and the Bombay Urban Transport Project. These projects provide most of the basic off-site water and sewerage facilities and a substantial part of the bus transport required by the BUDP components in the BMC.

Organization and Staffing

11. The Municipal Commissioner, appointed by GOM, is BMC's Chief Executive. He is assisted by a Director of Engineering Services and Projects and Seven Deputy Municipal Commissioners, who are responsible for carrying out maintenance work and providing services in 15 wards of BMC (Chart 6).

12. Water supply and sewerage schemes and bus transport and electricity supply, are the responsibility of the BMC water supply and sewerage department (WSSD) and the Bombay Electricity Supply and Transport Undertaking (BEST) respectively. Although BEST's budgets and charges are subject to BMC Council approval, it operates as a relatively separate functional, self-financing entity, as does the WSSD, established in 1973.

13. Various other functional BMC departments,for roads, solid waste collection and disposal and public health, form part of BMC's direct line management structure. The City Engineer is responsible for slum improvement and roads construction. Slum upgrading work under the Project would be carried out by divisions under his responsibility. Under the coordination of the Deputy Commissioner (Personnel), the Director of Solid Waste Management is responsible for the collection and disposal of solid waste, removal of night soil and cesspool contents from unsewered areas, the maintenance of public sanitary conveniences and street cleaning. The Solid Waste Management Department is also responsible under its transport division for providing and maintaining vehicles for various other departments. Departments under the City Engineer and WSSD would be responsible for maintenance of roads and drains and water supply and sewerage on and off site infrastructure for LISP sites, and SUP neighborhoods.

ANNEX 16

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Maharashtra Housing and Area Development Authority
Rupees Crore

	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
SOURCES							
A. Traditional Housing:							
1. Rent and Service Charge	8.12	8.18	8.25	8.32	8.40	8.48	8.56
2. Downpayments	3.41	1.06	1.16	1.15	1.10	1.15	1.15
3. Other advance contributions	0.25	0.42	0.30	0.30	0.30	0.30	0.30
4. Installments	5.79	6.21	6.47	5.41	5.22	6.01	7.17
5. Loans	6.31	1.57	1.86	1.85	1.75	1.85	1.85
Sub-Total	23.88	17.44	18.04	17.03	16.77	17.79	19.03
B. Chawl Reconstruction & Repair:							
Grants and Cess	14.00	14.00	14.00	14.00	14.00	14.00	14.00
C. Slum Upgrading:							
Grants	2.50	2.50	2.50	2.50	2.50	2.50	2.50
D. Non-IDA LISP:							
1. Downpayments	0.00	1.00	0.98	0.98	2.25	5.63	5.63
2. Loans	0.00	9.00	8.77	8.77	20.25	50.62	50.62
3. Installments	0.00	0.00	1.20	2.37	3.54	6.25	13.03
Sub-Total	0.00	10.00	10.95	12.12	26.04	62.50	69.28
E. BUDP:							
1. LISP Plot Sales	0.00	3.01	11.47	16.16	11.14	5.68	0.89
2. LISP Downpayments	0.00	0.51	2.09	3.47	2.39	6.04	0.15
3. LISP Installments	0.00	0.00	0.50	2.62	6.25	8.73	10.36
4. SUP Downpayments	0.00	0.00	0.19	0.61	0.67	0.48	0.25
5. SUP Installments	0.00	0.00	0.00	0.22	1.19	2.77	4.20
6. GOM Loan	1.41	5.89	23.88	32.29	29.39	8.99	4.06
7. GOM Grant	0.00	0.08	0.27	0.34	0.27	0.00	0.00
Sub-Total	1.41	9.49	38.40	55.71	51.30	32.69	19.91
Total Sources	41.79	53.43	83.89	101.36	110.61	129.48	124.72
APPLICATIONS							
F. Traditional Housing:							
1. Administration & Overheads	2.12	2.26	2.42	2.58	2.77	3.25	3.25
2. Maintenance	5.28	5.39	5.51	5.64	5.77	5.94	6.09
3. Estate Management	0.90	0.70	1.03	1.10	1.17	1.26	1.33
4. House Construction	7.35	1.92	2.16	2.16	2.07	2.16	2.16
5. Loan Repayments	5.79	6.21	6.47	5.47	5.22	6.01	7.17
Sub-Total	21.44	16.48	17.59	16.95	17.00	18.62	20.00
G. Chawl Reconstruction & Repairs	14.00	14.00	14.00	14.00	14.00	14.00	14.00
H. Slum Upgrading	2.50	2.50	2.50	2.50	2.50	2.50	2.50
I. Non-IDA LISP:							
1. Civil Works	0.00	8.00	7.80	7.80	18.00	45.00	47.00
2. Loan Repayments	0.00	0.00	0.99	1.95	2.91	5.13	10.68
Sub Total	0.00	8.00	8.79	9.75	20.91	50.13	57.68
J. BUDP:							
1. LISP	1.41	9.12	32.68	39.99	29.61	10.88	2.80
2. SUP	0.00	0.30	4.95	12.55	13.96	5.77	2.55
3. TATE	0.00	0.08	0.27	0.34	0.27	0.00	0.00
5. Estate Management	0.00	0.25	0.50	0.50	0.50	0.50	0.50
6. Loan Repayments	0.00	0.00	0.00	0.00	0.00	12.65	13.08
Sub-Total	1.41	9.75	38.40	53.38	44.34	29.80	18.93
Total Applications	39.35	50.73	81.28	96.58	98.75	115.05	113.11
Surplus/ (deficit)	2.44	2.70	2.61	4.78	11.86	14.43	11.61
Cumulative	2.44	5.14	7.75	12.53	24.39	38.82	50.43
Ratios:							
1. Overheads as % of Construction.	8.89	8.55	9.15	9.75	7.57	5.11	4.95
2. Estate Management as %of collection.	5.12	4.66	4.69	3.85	3.93	3.42	3.54

Note: BUDP overheads are included in each component.

ANNEX 17

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

City and Industrial Development Corporation
Sources and Applications of Funds

Rupees Crore

	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
SOURCES							
A. Non-IDA Programs:							
1. Housing- Downpayments & Sites	17.20	19.80	22.12	29.66	28.12	27.33	29.21
- HUDCO Loans	16.77	18.62	19.91	23.29	24.10	20.27	20.27
2. Community Facilities Sites	0.00	0.00	2.22	1.82	1.82	1.82	1.2
3. Commercial Complexes Sites	0.00	0.00	5.03	5.37	5.76	6.15	6.59
4. Land Sites	20.00	21.00	22.00	23.00	24.00	25.00	26
5. Installments	2.62	3.62	4.83	5.74	7.61	9.72	11.6
6. Interest Receivable	1.62	2.32	4.20	7.16	9.73	10.39	11.88
7. Service Charges	0.36	0.58	0.82	1.08	1.32	1.59	1.86
Sub-Total	58.57	65.94	81.13	97.12	102.46	102.27	108.61
B. BUDP:							
1. LISP Plot Sales	0.00	1.69	4.09	3.11	0.00	0.00	0.00
2. LISP Downpayments	0.00	0.65	1.10	1.38	0.59	0.00	0.00
3. LISP Installments	0.00	0.00	0.62	2.11	3.25	3.25	3.25
6. GOM Loan	0.66	2.29	8.40	6.77	0.78	1.27	1.13
7. GOM Grant	0.00	0.01	0.04	0.05	0.04	0.00	0.00
Sub-Total	0.66	4.64	14.25	13.42	4.66	4.52	4.38
Total Sources	59.23	70.58	95.38	110.54	107.12	106.79	112.99
APPLICATIONS							
C. Non-IDA Programs:							
1. Construction Costs-Housing	23.9	26.35	28.36	35.51	33.78	28.9	28.9
2. -do- Comm. Facilities	0.00	0.00	1.72	1.41	1.41	1.41	0.93
3. -do- Comm. Complex	0.00	0.00	3.35	3.58	3.84	4.10	4.39
4.Overheads	2.9	3.10	3.32	3.55	3.8	4.07	4.35
5. Repairs & Maintenance	0.23	0.24	0.24	0.24	0.25	0.25	0.26
6. Service Costs	0.6	0.90	1.3	1.8	2.2	2.65	3.06
7. Interest Payable	3.94	5.81	6.77	8.96	11.02	12.13	13.4
8. Loan Repayments	3.96	4.03	5.53	18.53	7.84	17.26	11.12
9. Nodal Infrastructure	8.5	16.73	11.77	12.12	11.94	11.45	3.2
10. Ex-Gratis Payments for Land	2.00	2.00	2.00	2.00	2.00	2.00	2.00
11. Loan to BMTC	1.48	1.28	0.97	0.88	0.00	0.00	0.00
Sub-Total	47.51	60.44	65.33	88.58	78.08	84.22	71.61
J. BUDP:							
1. LISP	0.66	4.63	13.59	11.26	1.37	1.27	1.13
2. TATE	0.00	0.01	0.04	0.05	0.04	0.00	0.00
3. Estate Management	0.00	0.15	0.20	0.20	0.13	0.12	0.12
4. Loan Repayments	0.00	0.00	0.00	0.00	0.00	2.78	2.83
Sub-Total	0.66	4.79	13.83	11.51	1.54	4.17	4.08
Total Applications	48.17	65.23	79.16	100.09	79.62	88.39	75.69
Surplus/ (deficit)	11.06	5.35	16.22	10.45	27.50	18.40	37.30
Cumulative	11.06	16.41	32.63	43.08	70.58	88.98	126.28

Note: BUDP overheads are included in each component.

BOMBAY URBAN DEVELOPMENT PROJECT

Pricing, Affordability and Cost Recovery - Airoli-CIDCO Lisp Sites 1/

OCT 20/83 BASE UNIT COST		base cost	Physic Conten	Design Sup&Mg	Inter. Const.	to be recov.	
Land		4.00	0	2	9	4.45	
Site preparation		5.10	10	12	9	6.85	
On site infrastruct.		41.59	10	12	9	55.85	
		0.00	0	0	0	0.00	
Nodal infrastructure		57.69	0	0	0	57.69	
Core house#1		2000	10	5	9		2517.9
" " #2		3450	10	8	9		4467.5
" " #3		5350	10	10	9		7056.1
*TOTAL COST/GROSS M2=		124.84				124.84	

LAND USE	29.688			
% of circulation	=	14.23	sale price	
% of open space	=	12.41	per net m2	
Total area	ha	145.63		
Bazar & markets.	m2	22000	180	
Shops & Cinema	m2	40000	480	
Service Industry	m2	75000	240	
Bus terminal	m2	6545	0	
Institutions m2		40000	100	
College	m2	4800	100	
Primary schools...m2		35100	100	
*Residential area	m2	844897		
*Circulation area	m2	207231		
*Open space area	m2	180727		
*TOTAL NMBR.OF HHSLD		22960	Av.Hhsld.size:	4.5 Av.density: 709.48

*AVER.DEV.COST/NET M2 170.17

AFFORDABILITY Plot type		A1	A2	A3	B	C	D	So.plt	
Monthly income/hsld		300	500	725	800	1250	2500	3000	
Percent of plots		16.16	25.58	18.57	13.06	9.39	4.73	12.51	
*number of plots		3710	5873	4264	2999	2156	1086	2872	0
Plot size	m2	21	24.5	28	40	60	102	50	
Sale price per net m2		45	60	90	180	240	315	240	
Connection cost/plot		0	0						
Cost of Core house		2519	4468	7056					
TOTAL CAPITAL/HSLD		3464	5938	9576	7200	14400	32130	12000	0
Down payment percent		0	0		20	20	20	100	
" " lump sum		350	500	1000	0	0	0	sold	
Yearly interest rate		12	12	12	12	12	12	for	
Recovery period years		20	20	20	20	20	20	cash	
*MONTHLY PAYMENT		34.29	59.88	94.43	63.42	126.85	283.02	0.00	0.00
*% OF MONTHLY INCOME		11.43	11.98	13.02	7.93	10.15	11.32	0.00	0.00
Monthly water charges		5	5	5	5	10	10		
Other mainten.charges		7.5	7.5	7.5	10	10	10		
*TOTAL MONTHLY PAYMNT		46.79	72.38	106.93	78.42	146.85	303.02		0.00
Building loan amount		1000	2000	3000					
*Monthly b.l.payment		11.01	22.02	33.03	0.00	0.00	0.00		0.00
*TOTAL PAYMT WTH LOAN		57.80	94.40	139.96	78.42	146.85	303.02		0.00
*% of monthly income		19.27	18.88	19.31	9.80	11.75	12.12		0.00

AMOUNT RECOVE./NET M2		181.62							
" TO BE RECOV.		170.17							
SURPLUS/DEFICIT lacks		122.34							
AMOUNT RECOVERED THR. DOWN PAYMENT	=	12.99	29.37	42.64	43.18	62.09	69.79	344.68	0.00
TOTAL DOWN PAYMENTS =		1096.2							
TOTAL CAPITAL RECOVE=		2597.1							
RATIO DOWN P./CAPITAL		42.21							

1/ All costs in this table are for September 1983. Project base costs in July 1984 prices are estimated to be 4% higher, are derived from but not directly linked to this table.

BOMBAY URBAN DEVELOPMENT PROJECT

Land Use, Affordability & Pricing Charkop-Kandivali Lisp Site 1/

July 8/83 BASE UNIT COST	base cost	Physic Conten	Design Sup&Mg	Inter. Const.	to be recov.	
Land	10.00	0	2	9	11.12	Rs./m2
Site preparation	72.28	5	12	9	92.66	"
On site infrastruct.	54.68	10	12	9	73.43	"
	0.00	0	0	0	0.00	"
	0.00	0	0	0	0.00	"
Core house#1	1900	10	5	9		2392 Rs.
" " #2	4500	10	8	9		5827 "
" " #3	0	10	10	9		0 "
*TOTAL COST/GROSS M2=	177.20				177.20	

LAND USE			sale price
% of circulation	=	21.10	per net m2
% of open space	=	8.50	
TOTAL AREA	ha	51.40	
Bazar & markets.	m2	1160	300
Commercial cum Re.	m2	7207	850
Service Industry	m2	0	0
Bus terminal	m2	0	0
Institutions	m2	897	120
Health center	m2	990	120
Primary schools...	m2	25350	120
*Residential area	m2	326338	
*Circulation area	m2	108439	
*Open space area	m2	43668	
*TOTAL NMBR.OF HHSLD		8748	Av.Hhsld.size: 4.5 Av.density: 765.77

*AVER.DEV.COST/NET M2 251.67 7145

AFFORDABILITY Plot type		A	B	C	D	E	F	HIG P	
Monthly income/hsld		325	525	825	1250	1850	2850	4000	
Percent of plots		12.51	26.38	18.21	10.24	11.51	1.09	20.06	
*number of plots		1094	2308	1593	896	1007	95	1755	0
Plot size	m2	25	25	30	40	60	100	50	
Sale price per net	m2	60	60	90	150	250	325	600	
Connection cost/plot		0	0						
Cost of Core house		2393	5827	5827					
TOTAL CAPITAL/HSLD		3893	7327	8527	6000	15000	32500	30000	0
Down payment percent		0	0		15	20	20	100	
" " lump sum		400	650	900		0	0	sold	
Yearly interest rate		12	12	12	12	12	12	for	
Recovery period years		20	20	20	20	20	20	cash	
*MONTHLY PAYMENT		38.46	73.52	83.98	56.16	132.13	286.28	0	0.00
*% OF MONTHLY INCOME		11.83	14.00	10.18	4.49	7.14	10.04	0.00	0.00
Monthly water charges		5	5	5	5	10	10		
Other mainten.charges		3	3	3	10	10	10		
*TOTAL MONTHLY PAYMNT		46.46	81.52	91.98	71.16	152.13	306.28		0.00
Building loan amount		1000	1500	3000					
*Monthly b.l.payment		11.01	16.52	33.03	0.00	0.00	0.00		0.00
*TOTAL PAYMT WTH LOAN		57.47	98.04	125.01	71.16	152.13	306.28		0.00
*% of monthly income		17.68	18.67	15.15	5.69	8.22	10.75		0.00

AMOUNT RECOVE./NET M2	263.47
" TO BE RECOV.	251.67
SURPLUS/DEFICIT lacks	42.717

AMOUNT RECOVERED THR.									
DOWN PAYMENT	=	4.38	15.00	14.34	8.06	30.21	6.17	526.48	0.00
TOTAL DOWN PAYMENTS =		702.07							
TOTAL CAPITAL RECOVE=		1207.1							
RATIO DOWN P./CAPITAL		58.16							

1/ All costs in this table are for September 1983. Project base costs in July 1984 prices are estimated to be 4% higher, are derived from but not directly linked to this table.

BOMBAY URBAN DEVELOPMENT PROJECT

Distribution of Plots Among Geographical Zones, Slum types & Plot Size - Development Cost and Cost Recovery 1/

NUMBER OF HOUSHOLDS = 100000

% in geographical zones

		hh
zone 1	6.00	6000
zone 2	8.00	8000
zone 3	51.00	51000
zone 4	35.00	35000
	100.00	100000

% in slum types:			Space /hut	total area	cost /m2	total cost
type I	20.00	20000	29.69	59.38	27.82	165.20
type II	50.00	50000	18.46	92.30	86.97	802.73
typeIII	30.00	30000	19.05	57.15	127.62	729.35
	100.00	100000		208.83 ha		1697.3 (lac Rs.)

% in plot types:

small	24.00	24000
medium	60.00	60000
large	16.00	16000
	100.00	100000

			% hh	hh.	price per hh	total recove	cost /unit	total cost	loan amount	total loan
Zone 1	type I	small	0.29	288	2000	5.76	826	2.38	700	2.02
		medium	0.72	720	3500	25.20	826	5.95	850	6.12
		large	0.19	192	5000	9.60	826	1.59	1000	1.92
	type II	small	0.72	720	2000	14.40	1607	11.57	700	5.04
		medium	1.80	1800	3500	63.00	1607	28.93	850	15.30
		large	0.48	480	5000	24.00	1607	7.71	1000	4.80
	typeIII	small	0.43	432	2000	8.64	2431	10.50	700	3.02
		medium	1.08	1080	3500	37.80	2431	26.25	850	9.18
		large	0.29	288	5000	14.40	2431	7.00	1000	2.88
			6.00			202.80		101.88		
Zone 2	type I	small	0.38	384	1500	5.76	826	3.17	1200	4.61
		medium	0.96	960	3000	28.80	826	7.93	1800	17.28
		large	0.26	256	4000	10.24	826	2.11	3500	8.96
	type II	small	0.96	960	1500	14.40	1607	15.43	1200	11.52
		medium	2.40	2400	3000	72.00	1607	38.57	1800	43.20
		large	0.64	640	4000	25.60	1607	10.28	3500	22.40
	typeIII	small	0.58	576	1500	8.64	2431	14.00	1200	6.91
		medium	1.44	1440	3000	43.20	2431	35.01	1800	25.92
		large	0.38	384	4000	15.36	2431	9.34	3500	13.44
			8.00			224.00		135.84		
Zone 3	type I	small	2.45	2448	1250	30.60	826	20.22	1500	36.72
		medium	6.12	6120	2200	134.64	826	50.55	2700	165.24
		large	1.63	1632	3500	57.12	826	13.48	4500	73.44
	type II	small	6.12	6120	1250	76.50	1607	98.35	1500	91.80
		medium	15.30	15300	2200	336.60	1607	245.87	2700	413.10
		large	4.08	4080	3500	142.80	1607	65.57	4500	183.60
	typeIII	small	3.67	3672	1250	45.90	2431	89.27	1500	55.08
		medium	9.18	9180	2200	201.96	2431	223.17	2700	247.86
		large	2.45	2448	3500	85.68	2431	59.51	4500	110.16
			51			1111.8		866		
Zone 4	type I	small	1.68	1680	1000	16.80	826	13.88	1800	30.24
		medium	4.20	4200	1500	63.00	826	34.69	3200	134.40
		large	1.12	1120	2500	28.00	826	9.25	5000	56.00
	type II	small	4.20	4200	1000	42.00	1607	67.49	1800	75.60
		medium	10.50	10500	1500	157.50	1607	168.74	3200	336.00
		large	2.80	2800	2500	70.00	1607	45.00	5000	140.00
	typeIII	small	2.52	2520	1000	25.20	2431	61.26	1800	45.36
		medium	6.30	6300	1500	94.50	2431	153.15	3200	201.60
		large	1.68	1680	2500	42.00	2431	40.84	5000	84.00
			35			539		594.3		
										2684.7

TOTAL AMOUNT RECOVERED	=	2078
" COST	=	1698
SURPLUS /DEFICIT	=	380
" LOAN AMOUNT	=	2000
% OF LOAN BENEFIC.	=	74.50

1/ **All costs in this table are for September 1983. Project base costs in July 1984 prices are estimated to be 4% higher, are derived from but not directly linked to this table.**

ANNEX 21

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

Urban Poverty Impact

Component	Component Cost Impact US$ m.	Spent on the Poor (%)	Amount Spent on Poor US$ m.	No. of UP Beneficiaries (000)		UP Cost Per Capita US$	UP Needing Service (000)	% of UP Need Served by Project
Land and Infrastructure Servicing	178.4	65.0	116.0	325		357	-	10
Slum Upgrading	46.3	65.0	30.1	325		93	4,000	8
Municipal Services	28.0	50.0	14.0	4,675	1/	3	-	-
Tech. Assist, Training and Equipment	1.9	50.0	1.0	-		-	-	-
TOTAL	254.6	63.3	161.0	650	2/	248	3,250	18 3/

1/ 3,100,000 in BMC Island City wards + 475,000 in TMC + 840,000 in KMC plus 260,000 in NBMC = 4,675,000 people.

2/ Only land and infrastructure servicing and slum upgrading beneficiaries.

3/ About 18% of the 1982 urban population needing services, based on BMRDA's low estimate of the population in need and not including about 725,000 chawl inhabitants.

INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

List of Selected Documents Available in the Project File

1. Background

1.1 Report of the One Man Commission on the Establishment of New Municipal Corporations. GOM (1979).

1.2 Relaxations in Development Control Rules for Greater Bombay. GOM Order of January 7, 1982.

1.3 Amendment of Bombay Metropolitan Region Development Act of 1974. GOM Order of May 20, 1983. (Reduces size of BMRDA Authority and eliminates functional Boards).

1.4 Policy for Location of Industries in the BMR. GOM Resolutions of January 27, 1977 and December 26, 1974.

1.5 Housing for Weaker Section of the Society. New scheme U/S 20 of the Urban Land Ceiling Act, 1976. GOM circular of June 25, 1983.

1.6 Proposed Amendment of the Bombay Municipal Corporation Act, (Concerning the property tax).

1.7 Bus Transport Requirements for New Bombay. CIDCO Tspt. Planning Section (6/83).

1.8 The Development Control Rules for Greater Bombay.

1.9 Population Forecast for BMR.

1.10 BMR Socio-Economic Profile

1.11 Socio-Economic profiles of Indian states.

1.12 Bombay Rents, Hotel and Lodging House Rates Control Act, 1974

1.13 Report of the Rent Acts Enquiry Committee, 1976

1.14 Socio-Economic Survey of Households at Vashi, New Bombay (CIDCO).

1.15 Affordable Low-Income Shelter programs in the BMR (BMRDA, 1/82) and Addendum of 6/82.

II. The Program and the Project

2.1 Tender Documents for MHADA site at Charkop-Kandivalli (September 12, 1983).

2.2 Terms of Reference and RFP letter, for Consultancy Services in Design and Implementation of Organization and Management system for MHADA (September 1983).

2.3 Terms of Reference and RFP Letter for consultancy services to TMC to assess municipal service requirements and Management Systems

2.4 Bid Drawings for Charkop-Kandivalli Site (October 14, 1983).

2.5 Model Activities Schedule for Charkop-Kandivalli site (7/83) of CIDCO.

2.6 Model Activities Schedule for Airoli site (7/83) of CIDCO.

2.7 Estimates of staff organization and costs of implementing LISP, SUP and BURP by MHADA and BHADB (March 1983)

2.8 Consultants Report on LOGFAS Component. D. Ayres 9/83 (includes estimates of rate of return on solid waste component).

2.9 Report on solid waste management, BMC.

2.10 Consultant's Report on LISP and SUP Engineering Progress (9/83).

IV. Management, Organization and Finance

4.1 Financial Analysis of CIDCO, Consultant's Report from Appraisal Mission.

4.2 Financial Analysis of MHADA, Consultant's Report from Appraisal Mission.

4.3 Estimates of Capability of MHADA to undertake BUDP.

4.4 Resolution of Government (GOM) No. BMR 1082/CR-94/1075-UD1, dated October 21, 1982, appointing BMRDA as agency for coordinating BUDP and describing BMRDA's responsibilities.

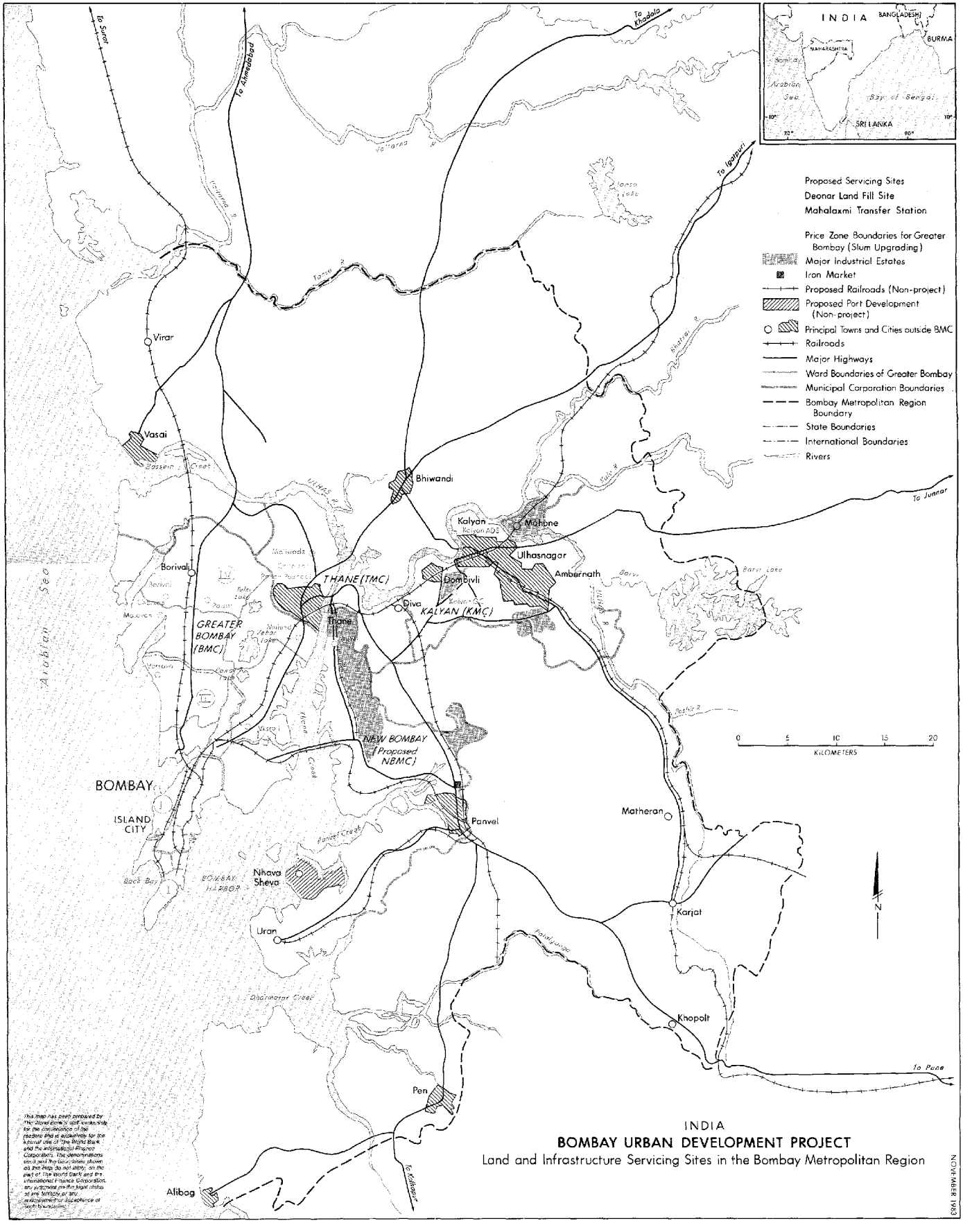
V.

5.1 Slum Upgrading Pricing Policy. BMRDA Working Papers

5.2 Draft Lease Agreement for LISP plots (MHADA 3/83).

VI. Project Justification

6.1 Economic Rate of Return Calculations for LISP and SUP. Working Papers



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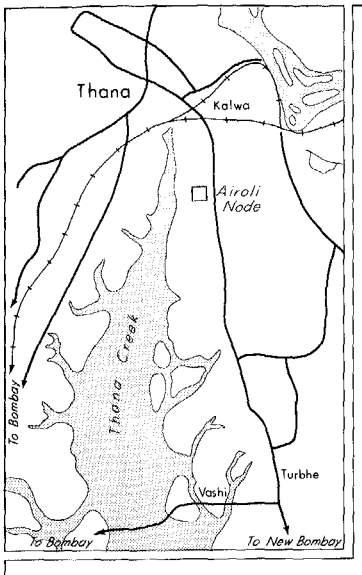
BOMBAY URBAN DEVELOPMENT PROJECT

Land and Infrastructure Servicing Sites in the Bombay Metropolitan Region

IBRD 17583

NOVEMBER 1983

IBRD 17584
NOVEMBER 1983



INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

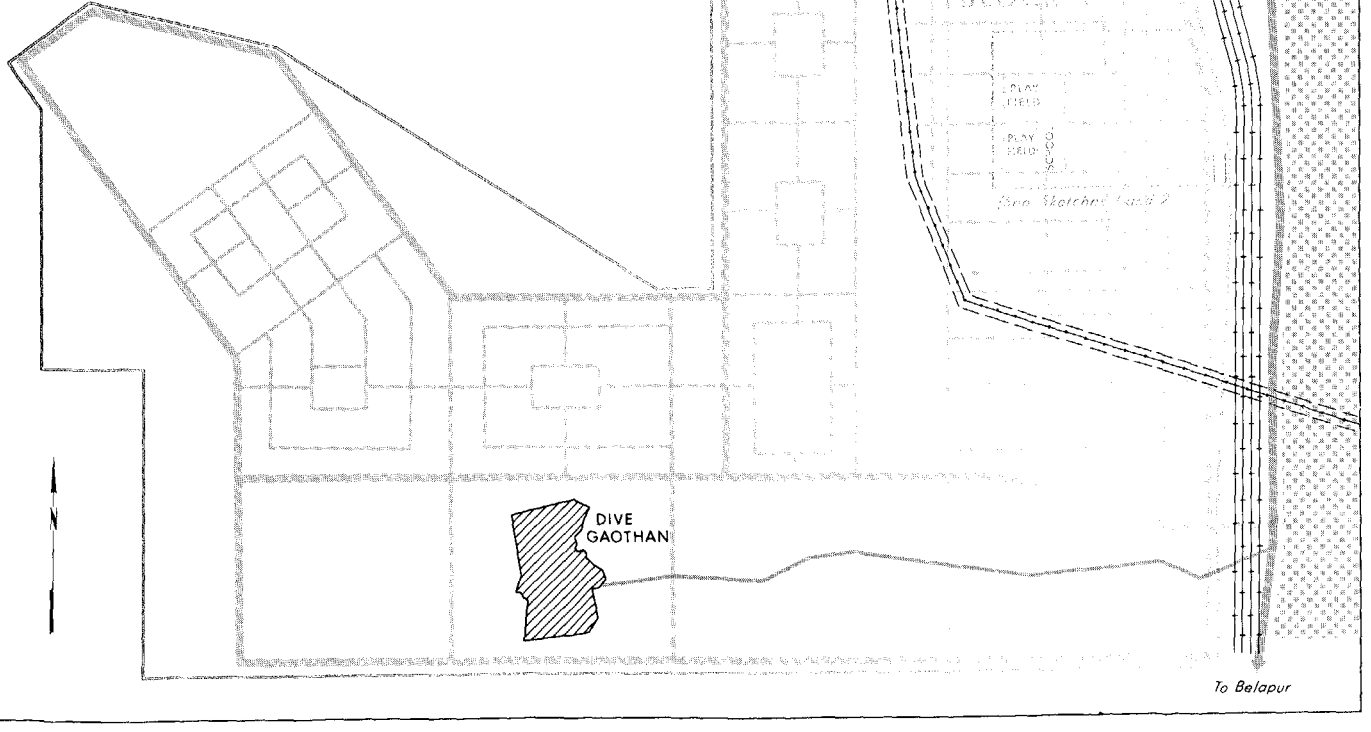
LAND AND INFRASTRUCTURE SERVICING SITE

AIROLI NODE

PROJECT:
- Nodal Boundary
- Roads
- Bus Terminal

EXISTING:
- Villages
- Roads
- Proposed Railroads (non-project)

0 100 200 300 METERS



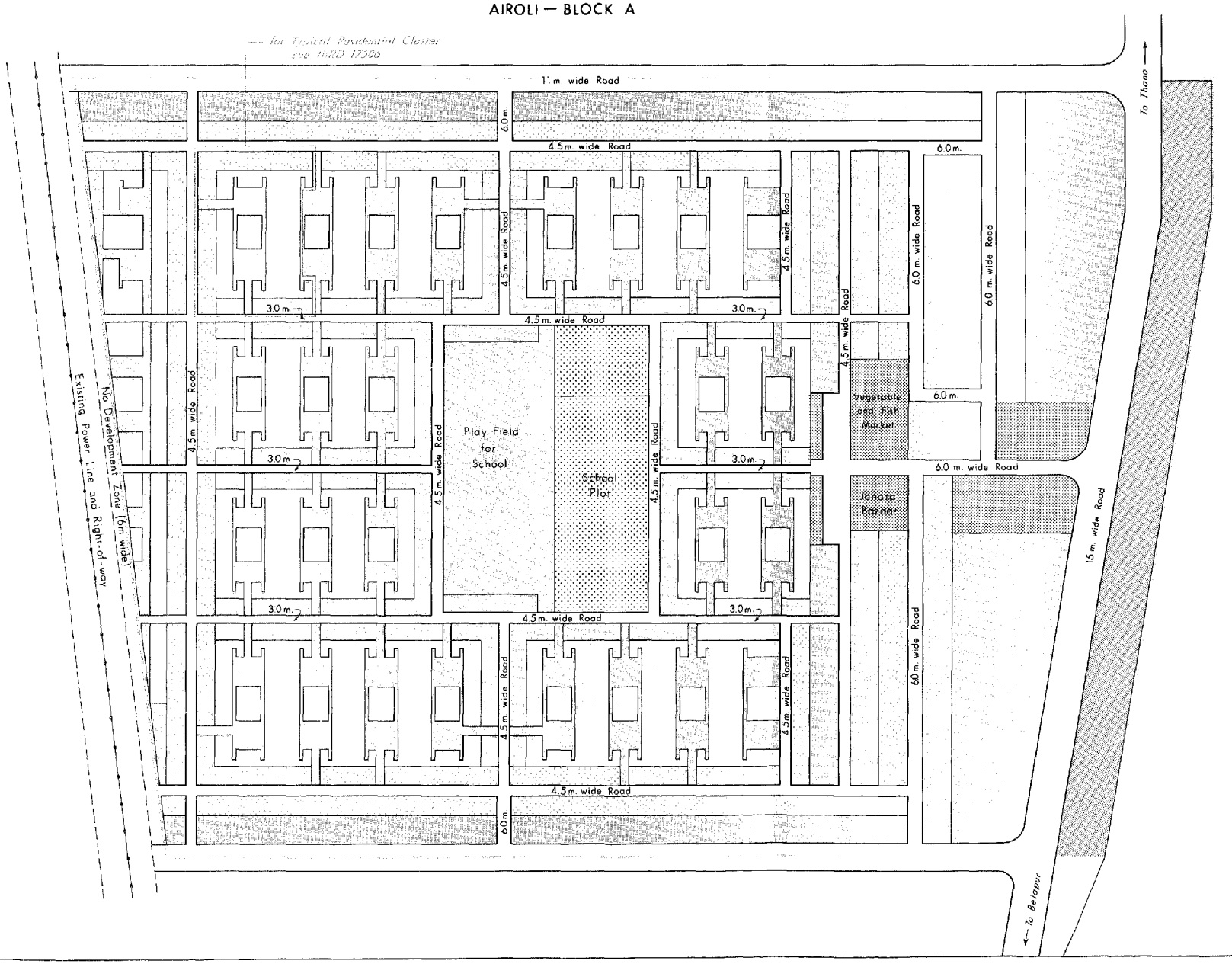
INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

LAND AND INFRASTRUCTURE SERVICING SITE

LAND USE

AIROLI — BLOCK A



Block Boundary

LAND USE:

Residential:

INCOME GROUP RS (AVERAGE)	PLOT AREA (SQ. METERS)
500	24.5
725	28
800	40
1250	60
2500	100
3000	750 (Co-op Apt. plots)

Commercial

Service Industrial

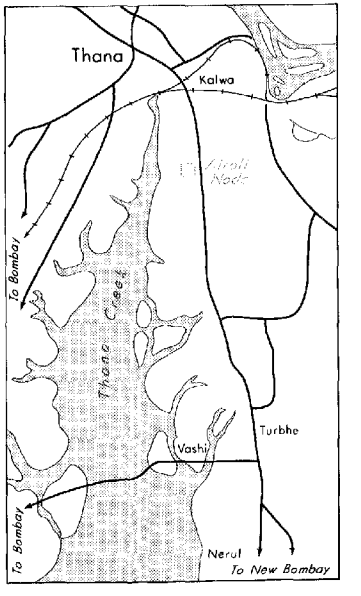
Social Facilities

Open / Green Spaces

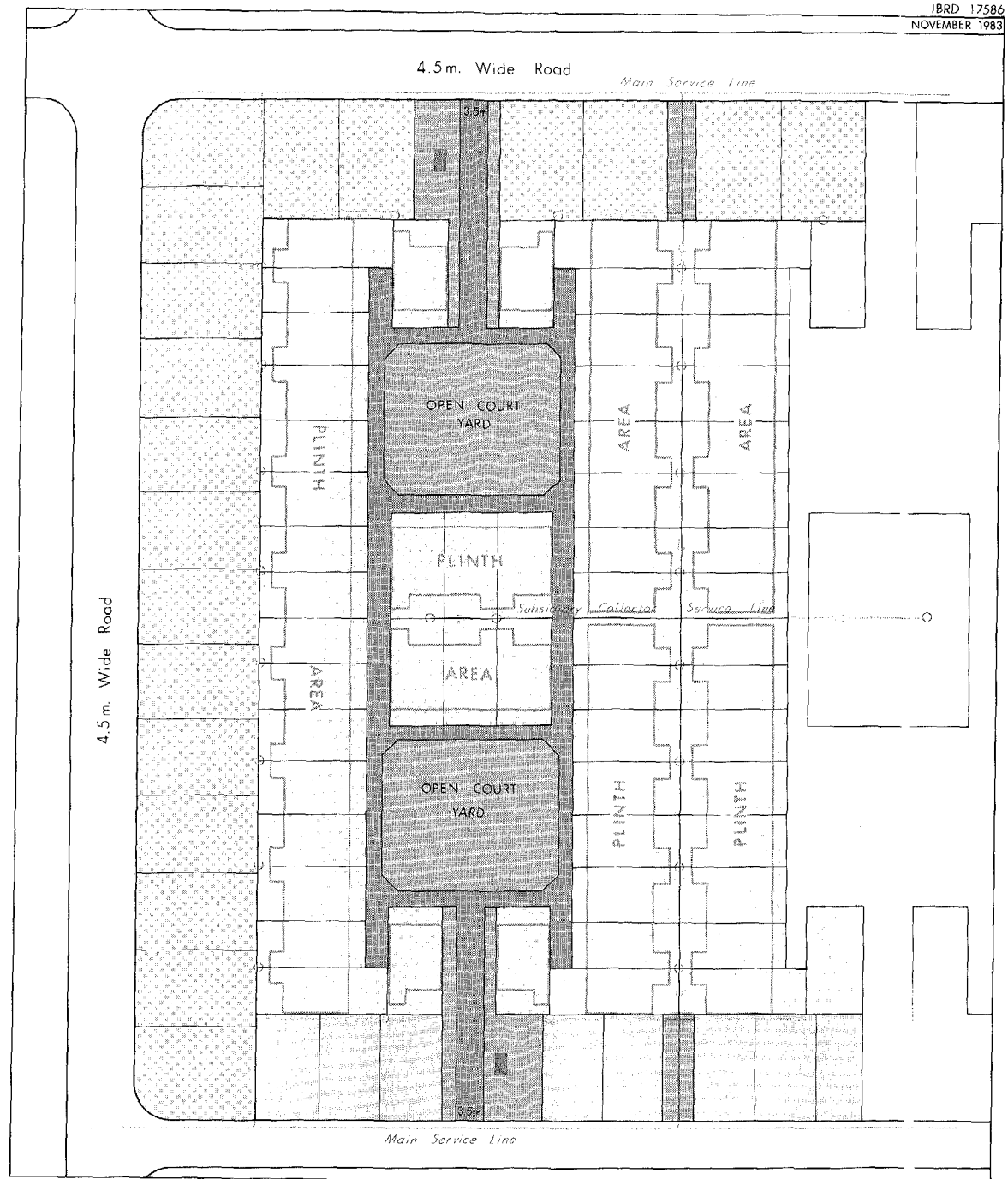
Roads

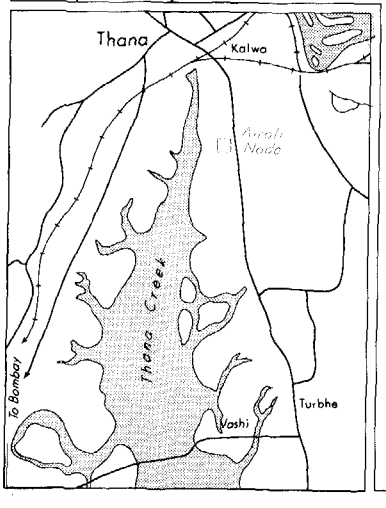
0 50 100

METERS



IBRD 17586
NOVEMBER 1983





INDIA

BOMBAY URBAN DEVELOPMENT PROJECT

AIROLI NODE

TYPICAL RESIDENTIAL CLUSTER

LAND USE:

Residential:

INCOME GROUP RS (AVERAGE)	PLOT AREA (SQ. METERS)
500	24.5
725	28
800	40

Open / Green Spaces

Plinth Area for 24.5 m^2 plots

Roads

Paved Footpaths

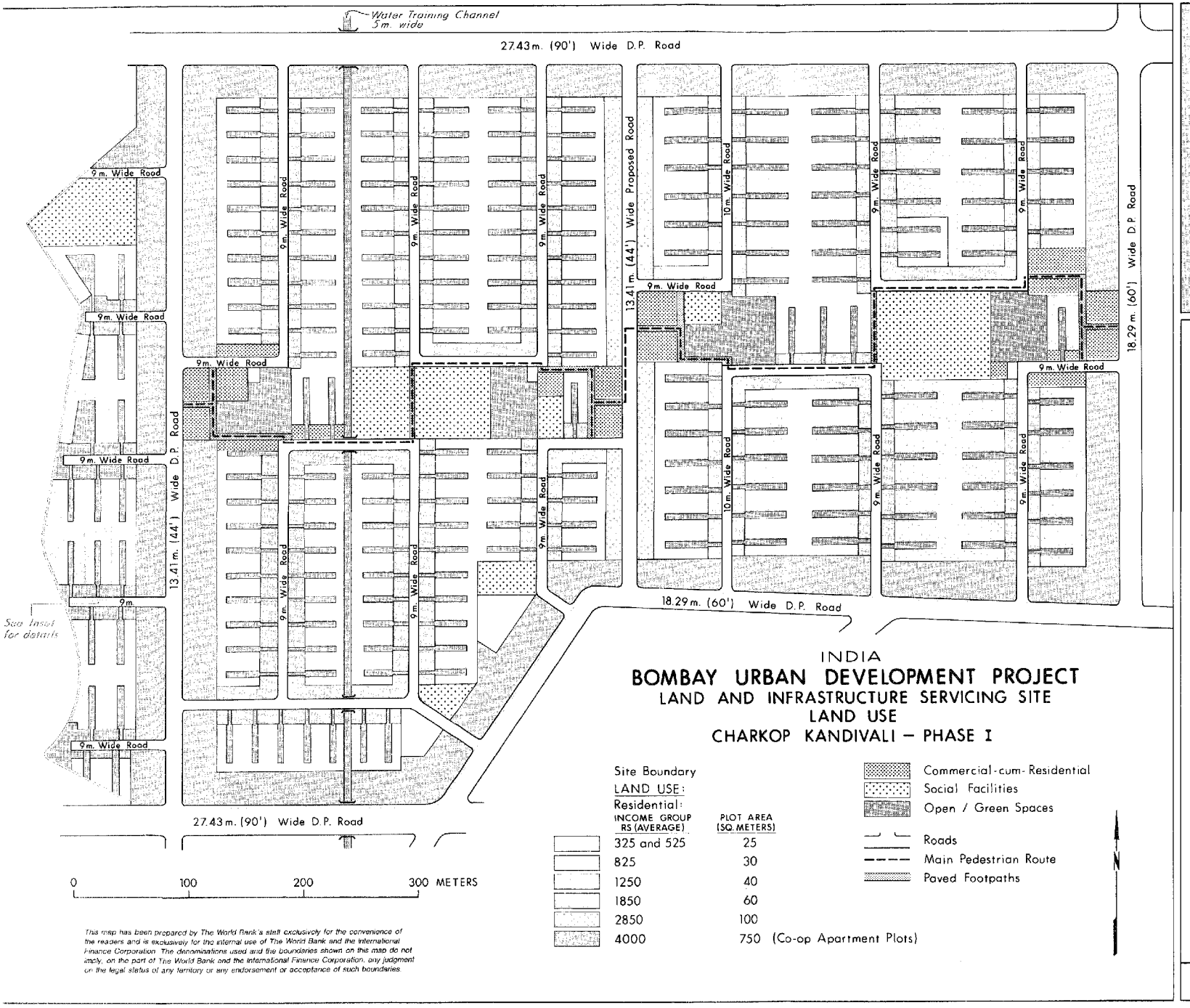
Sewerage Lines and Connec on Points

Solid Waste Collection Are s

0 5 10 15 20 METERS

N

IBRD 17587



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BOMBAY URBAN DEVELOPMENT PROJECT

LAND AND INFRASTRUCTURE SERVICING SITE

LAND USE

CHARKOP KANDIVALI – PHASE I

Site Boundary

LAND USE:

Residential:

INCOME GROUP RS (AVERAGE)	PLOT AREA (SQ. METERS)
325 and 525	25
825	30
1250	40
1850	60
2850	100
4000	750 (Co-op Apartment Plots)

Commercial-cum-Residential

Social Facilities

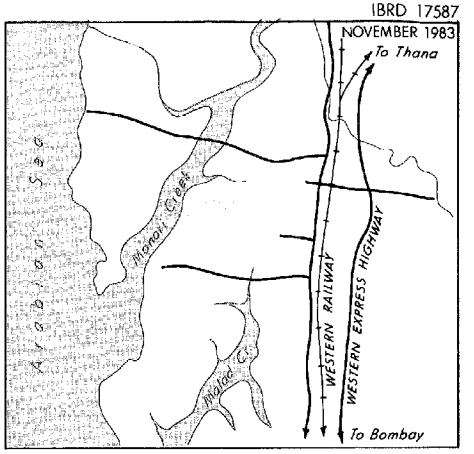
Open / Green Spaces

Roads

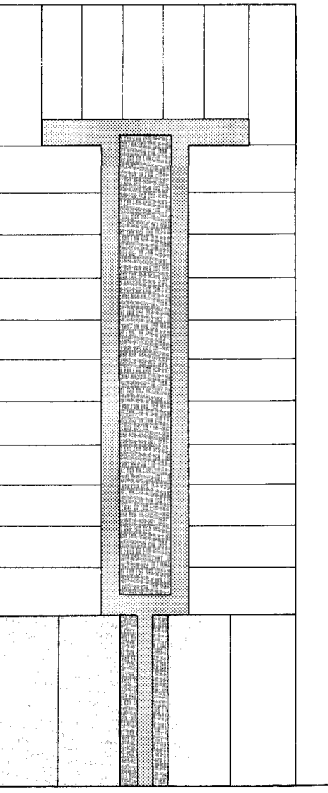
Main Pedestrian Route

Paved Footpaths

N



TYPICAL RESIDENTIAL CLUSTER CHARKOP KANDIVALI



9.0 Meter Access Road