

**RESEARCH ON COMMUNITY BASED
PUBLIC-PRIVATE PARTNERSHIP IN THE
EFFECTIVE MANAGEMENT OF
URBAN INFRASTRUCTURE**

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INDIAN HUMAN SETTLEMENTS PROGRAMME

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1990

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LIST OF ABBREVIATIONS

ALIS	Affordable Low Income Shelter
BEST	Bombay Electricity and Transport Undertaking
BMC	Bombay Municipal Corporation
BMR	Bombay Metropolitan Region
BMRDA	Bombay Metropolitan and Regional Development Authority
BUDP	Bombay Urban Development programme
CIDCO	City and Industrial Development Corporation
CS	Cooperative Society
EI	Environment Improvement
HSMI	Human Settlement Management Institute
HUDCO	Housing and Urban Development Corporation
IHS	Institute for Housing Studies
MCV	Municipal Corporation Vishakhapatnam
MHADA	Maharashtra Housing and Area Development Authority
NC	Neighbourhood Committee
NGO	Non-Governmental Organization
ODA	Overseas Development Administration (U.K.)
PMGP	Prime Minister's Grant Project
SIP	Slum Improvement Programme/Project
SUP	Slum Upgrading Programme
UCD	Urban Community Development Department
UNICEF	United Nations' Children Fund
VUDA	Vishakhapatnam Urban Development Authority
VSIP	Vishakhapatnam Slum Improvement Project
WB	World Bank

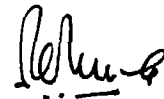
PREFACE

City managements are finding it increasingly difficult to effectively manage the ever increasing networks and systems required to supply urban infrastructure. This is mainly due to fiscal and manpower constraints and manifests itself particularly in the mushrooming slums and squatter settlements in the larger cities. In this context, there is a growing realisation that there can be an active role which could be played by the slum dwellers themselves in a variety of activities related to maintenance of facilities.

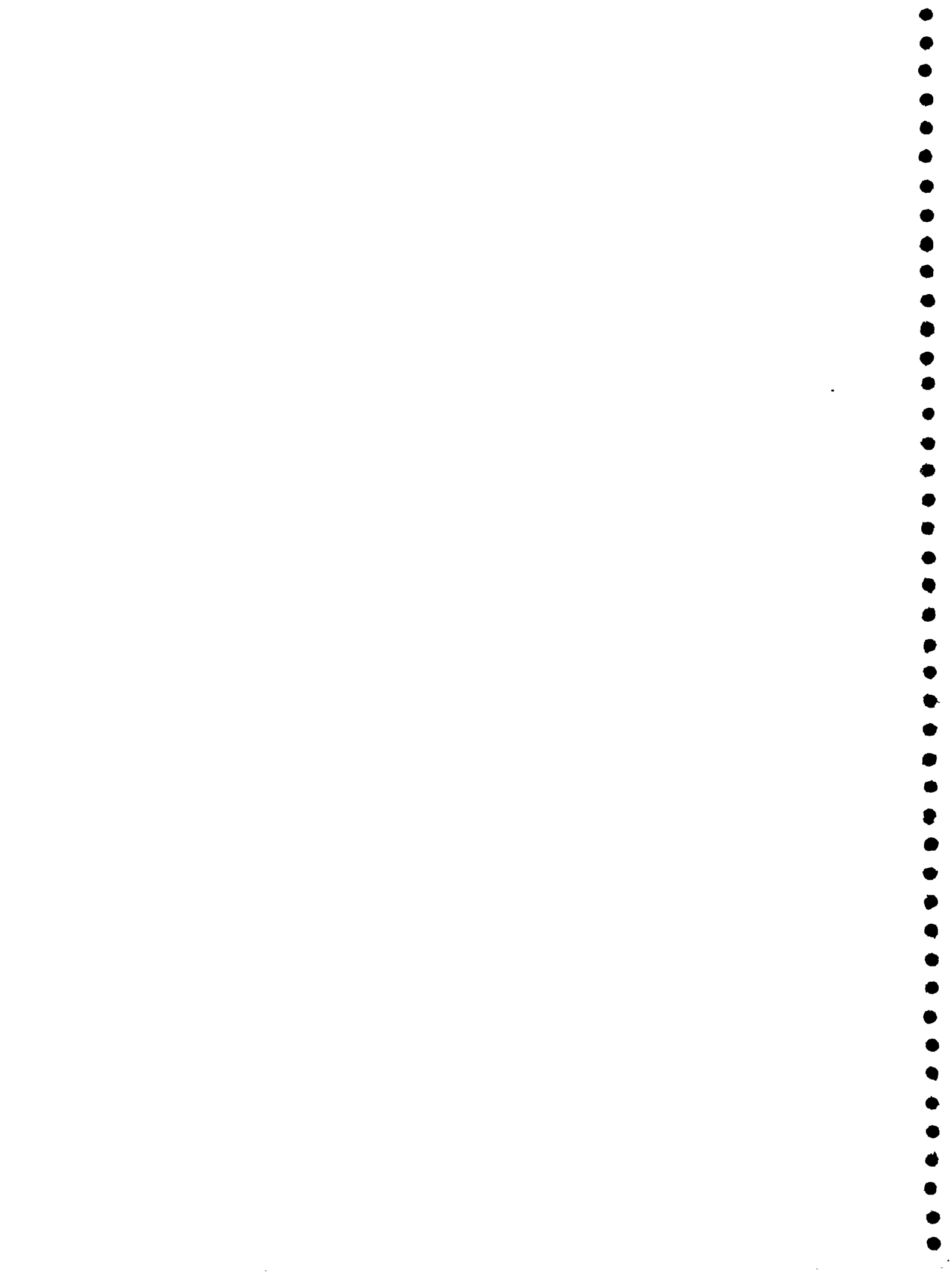
The publication of the present report "Community Based Public-Private Partnership in the Effective Management of Urban Infrastructure" comes at a time when this concept has been applied at a few locations in India under various programmes. Specifically it focuses on the World Bank assisted Slum Upgrading Programme in Bombay and the O.D.A. assisted Slum Improvement Project in Vishakhapatnam. In these projects identified responsibilities for maintenance are vested, by prior agreement, on peoples' Cooperative Societies and Neighbourhood Committees.

The main findings of the study indicate the requirement for integrated programmes incorporating housing and socio-economic programmes with infrastructure provision. The housing programme associated in the Vishakhapatnam Project has proved successful. Further that there should be flexibility in the standards of infrastructure to be provided which should be related to the environmental conditions. Emphasis should be put on establishing or developing leadership in community organisations which will help in creating skills at community level to organise maintenance. Maintenance routines should be established early to ensure sustained community based infrastructure management.

This research was carried out by the Human Settlement Management Institute, New Delhi, in collaboration with the Institute for Housing Studies, Rotterdam. It is hoped that the results will contribute to further exploration of the concept of public-private partnership by planning and implementing agencies for better management of urban infrastructure.



S.K. Sharma
Chairman & Managing Director
HUDCO



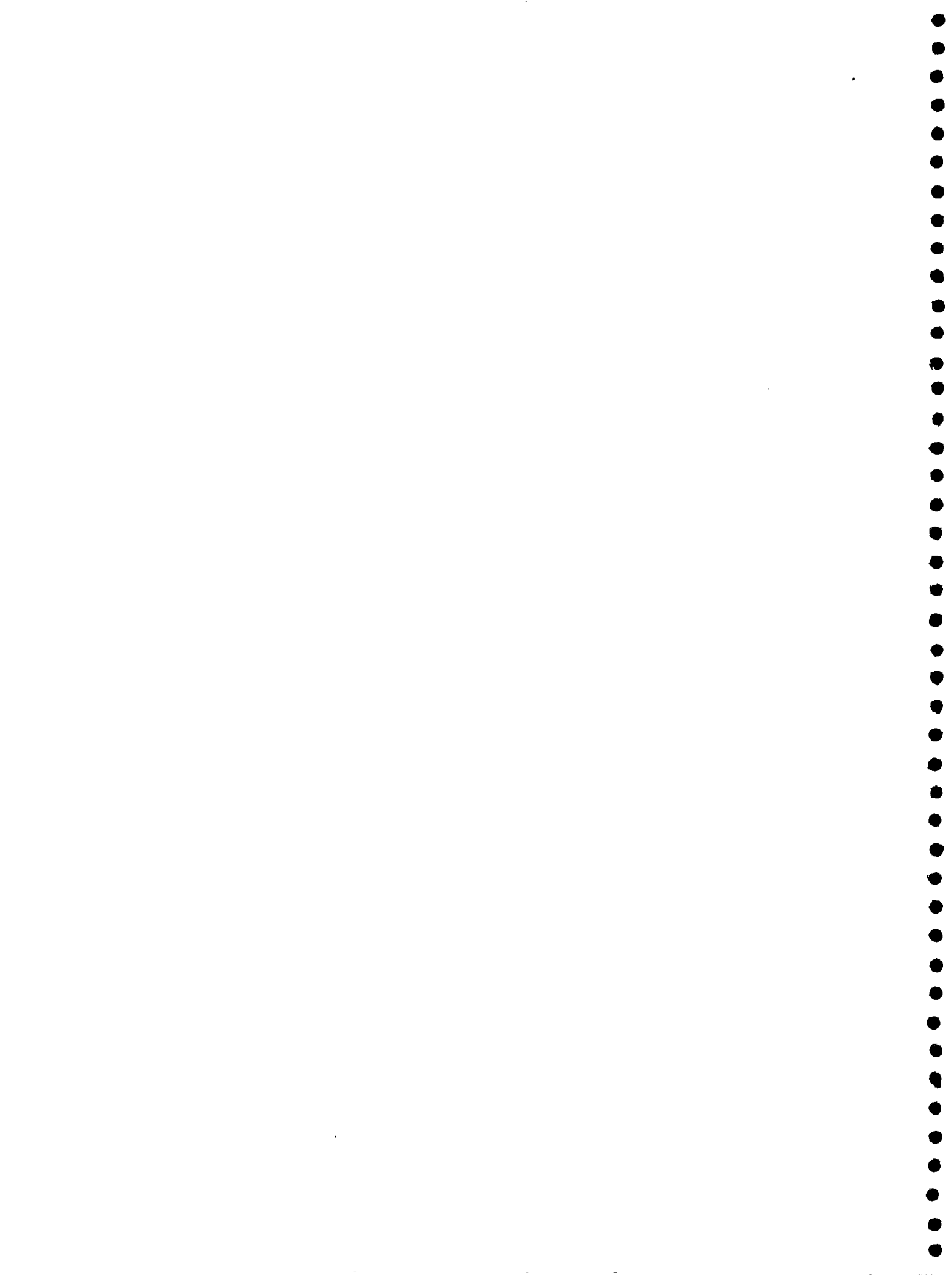
ACKNOWLEDGEMENT

This report is the outcome of a research undertaken by the Human Settlement Management Institute, New Delhi, under the Indian Human Settlements Programme (IHSP) India, in collaboration with the Institute for Housing Studies, the Netherlands. The report deals with the changing relations between the actors involved in infrastructure provision in order to achieve community-based management of amenities.

We would like to express our gratitude for the coordination, encouragement and inspiration provided by Mr. Mulkh Raj, the former Executive Director of H.S.M.I. For assistance during the collection and processing of data, we would like to thank Mr. C. Vijaya Kumar, Assistant Chief (EDP) of H.S.M.I., and Mr. A.N. Krishnamurthy and Mrs. Kiran Wadhva who provided us with valuable comments for the finalization of this research report.

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New Delhi, June 1990



CHAPTER – I

INTRODUCTION

Over the past forty years, the accelerated growth in urban areas, has posed many problems for city governments in Asian countries. The problem of delivering adequate urban services especially to low-income communities is growing ever more acute.

At global level, the problem of deteriorating basic services for cities in developing countries has been a major theme for international agencies for many years.

In almost every developing country in Asia, the gap continues to widen between the need for and the provision of urban services in low-income communities. The problem includes both physical services such as water supply, garbage collection and disposal, human waste disposal, fire protection, and social services such as health care, child care, recreation and education. The gradual realization of the ineffectiveness of a “service delivery” model by one main supplier, the government, has brought about a changing perception of the parties that need to be involved in provision and management of infrastructure and services.

The Human Settlement Management Institute, New Delhi, under the Indian Human Settlements Programme (IHSP), in collaboration with the Institute for Housing Studies (IHS), the Netherlands, has launched a research programme that focuses upon the changing relations between the parties involved in infrastructure provision and management. The outcome should contribute to a better understanding and improvement of urban management.

The main objective of this research is to gain a better understanding of the potential role of community-based organizations in the management of provided infrastructure facilities. For this purpose, two case-studies have been selected, where community-based public-private partnership is aimed at. These case-studies are:

- Bombay (Maharashtra), the World Bank assisted Slum Upgradation Project.
- Vishakhapatnam (Andhra Pradesh), the British O.D.A. assisted Slum Improvement Programme.

This report is structured in the following manner. In chapter 2, background and concepts are provided of public-private partnership in urban management of infrastructure. In chapter 3, the more detailed research objectives, the scope and adopted research methods are presented. In chapter 4, the case-study of Bombay is described, analyzed and findings are presented. In chapter 5, the case-study of Vishakhapatnam is presented. Finally, in chapter 6, the comparative findings, conclusions and recommendations are formulated.

FIGURE 1.1
LOCATION OF TWO CASE STUDIES IN INDIA



CHAPTER – II

PUBLIC-PRIVATE PARTNERSHIP IN THE URBAN MANAGEMENT OF INFRASTRUCTURE: CONCEPTUAL ELEMENTS

General

Management is often perceived as the mobilization and utilization of human, financial and material resources in order to achieve a particular target, status or development in a most effective way. This research has originated from the wish to study urban management issues in respect of infrastructure provision to the urban poor. The field of urban management has emerged as a key factor in tackling the problems of the urban poor. At the same time urban management concepts are in a process of change and reorientation.

There are a number of factors that have brought about a reorientation in the theory of urban management and the role of the public sector in the developing world (Nolan, 1986):

1. *Performance failure:* The public sector bodies fail to provide infrastructure utilities and services in an efficient manner. Efficiency is not a ruling criterion for the performance of the public sector. The use of human and financial resources is therefore not optimal, resulting in an unfavourable input/output ratio. Too many employees and excessive expenditure result in too low a service output. Public bodies operate in a marked bureaucratic manner, there is too much red tape, paralysed decision making and operation through centralized structures. Responsibilities and funds for planning, implementation, construction, operation and maintenance are scattered over several sectoral bodies hampering efficacious implementation, coordination and upkeep of services. Moreover, public bodies often lack a sound financial income base through taxation, levies and revenue collection. The generally low salaries of employees and the lack of employment uncertainty creates low motivation and dedication to perform optimally.
2. *Growing demand for infrastructure:* The rapid growth of urban population and the growing demand for infrastructure services exceeds the pace of growth – if any – of the public means for providing these services.
3. *Greater role of public participation in economic development:* Governments want to encourage popular or individual participation in economic development. The public sector wants to abstain from the image of being the sole benevolent provider of infrastructure, thus leaving little responsibility with the beneficiaries in case of abuse of infrastructure, prevention of vandalism, the operation and maintenance, the recovery of costs, etc.

4. *Private capital mobilization:* Tapping private capital for development and management of infrastructure services and utilities is another strategy to cope with the present problems, thus reducing public expenditures.
5. *Donor reorientation to private sector:* The international donors (WB, IMF, the International Banks) got interested in the privatization option after the experiences in the USA and the UK.

At present, governments of developing nations are quite hesitant towards private sector involvement for the provision of public services. Only when external pressure (from donors) becomes evident is privatization implemented, e.g. the concept of privatization has been applied under the Structural Adjustment Programmes and similar programmes of the IMF and the WB such as in African countries.

The term “privatization” implies the greater role of the private sector for economic and social development (Berg, 1983, p.73). This statement is rather a criterion than a definition. It means the reduction of activities of the State or Government at all levels, and even denationalization. Public and private sectors are thus strongly inter-related in respect of privatization. In this report, Hanke’s (1984) definition of privatization will be used:

“Privatization is a process whereby public operations are transferred to the private sector”.

What is important in this definition is that the process itself is emphasized and not so much the ultimate goal of this process. In theory the process might start where there is no private sector and only a public sector involved in the delivery of infrastructure services and ending in the reverse situation. Moreover the notion of transfer implies that the public sector does not simply stop an “operation” and leave it to market mechanisms to take over, either completely or partly. It means that the public sector assures in one way or another that operations are taken over by the private sector. This can be achieved by deregulation or by contracting out. It should also be noted that this definition does not assume that the private sector will provide the same level or mode of infrastructure service. Public-Private partnership is a mode of privatization where infrastructure provision is achieved on the basis of divided responsibility and accountability.

There are six ways in which infrastructure provision can be privatized (Roth, 1987):

1. The public sector leaves the provision to the private sector according to market mechanisms – buyers and sellers meet, and by competition, customers can seek the best values. This idealized situation does seldom occur as market mechanism tend to produce monopolies that bring disadvantages to unfavourable locations and exploitation of some socio-economic groups. Some regulation by the State and control by the public sector is therefore required.
2. Contract from public agencies – through competitive bidding, private firms can be contracted for the provision of certain infrastructure services. An example is road

maintenance as in Lima, Peru. Contracting out is common practice for the design and construction of public works. However, contracting out operation and maintenance remains rather unexplored, while there are sufficient opportunities to do so.

3. Monopoly franchises – wherever a natural monopoly or economies of scale (i.e. decreasing unit cost when increasing production) makes a single provider most efficient, a private company can be appointed by a public authority to provide those services and goods on a monopoly basis, at specified standards and tariffs. Examples of water supply are known from Ivory Coast and also France. Another example is the electricity supply in North Yemen.
4. Management contracts – in addition to monopoly franchises the public agency can retain responsibility but arrange for private management, as in the case of Botswana telephone service, managed by Cable and Wireless PLC.
5. Vouchers – a device that may appear in a variety of forms, enabling consumers to obtain goods or services free or at reduced cost while retaining the power to choose between competing suppliers. Famous are the food vouchers provided by authorities instead of opening special low-priced food shops. Education vouchers are also known (Chile).
6. Consumers Cooperatives – existent in a large variety, consumer cooperatives are self-governing, voluntary organizations. Like shareholders' companies, which distribute surpluses to their members in proportion to the shares they own, consumer cooperatives distribute surpluses in proportion to members' purchases. Designed to serve the interests of their members, consumer cooperatives are particularly acceptable in monopoly situations (community water or electricity supply), in which consumers cannot benefit from competition among suppliers.

The new partners in “policy vocabulary” are covered by themes such as community participation, community involvement, privatization or private sector involvement and NGOs involvement in infrastructure and service provision and management. One theme cannot be separated from the other as the whole issue deals with a changing arrangement between the actors involved in the delivery process. One may want to develop one particular relationship, e.g. public and private sector, but any change in this relationship will affect the relationship between communities (or beneficiaries) and the public bodies involved, between NGOs and public bodies, etc.

India

In India, one of the major drawbacks of urban infrastructure development and management is the separation of the developmental and maintenance roles. Plan size for urban development is often determined without reference to the size of the committed budget for maintaining such provisions. It appears that at each successive stage of the plan expenditure, the backlog for deficit for its management goes on increasing (Task

Force on Financing of Urban Development, 1983). There seems to be a bias of local bodies towards capital works and not towards maintenance of existing facilities and infrastructure. There is no systematic method for meeting the non-plan expenditure of the municipalities in most States. As the municipal bodies are not seriously involved in the development planning process and the articulation of the urban planning system, the new investment schemes are seen by the municipalities as not of their own making and as having been imposed on them by some higher authorities for their maintenance and operation in future. This lack of integration leads to planning of investments not being accompanied by the strengthening of either the physical, financial or personnel resources of the local authorities.

Apart from the problem of financial incapacity to handle management responsibilities, the municipal councils fail to utilize the existing resources efficiently and to perform well their normal function of maintaining existing infrastructure in good repair (Sundaram, 1986). An example are the slums that were improved under the Basic Needs Programme. The poor and non-existent maintenance of the latrines, water supply standposts, drainage, pavements, garbage disposal system and street lighting, etc., not only depreciate the capital assets over time and make early capital replacement essential, but deprive the slum dwellers of assured and sustained delivery of basic services. Moreover the institutional and material resources that are available for providing and maintaining infrastructure are utilized inadequately, while the collection of revenues is inadequate.

To cope with the present problems of management of infrastructure, a number of policies have been developed.

1. The Municipal Finance Commission has proposed to assign to the local authorities all services and functions which are clearly identifiable as local, and provide them with adequate powers and financial and other assistance for the proper performance of these functions. The Commission suggested in 1982 elements of reward for good performance and penalty for inefficiency. A Revised Grant principle was evolved and comprises of the State's commitment to fill in the revenue gap of the municipal body, provided that it makes a reasonable effort to improve its fiscal performance both in collection of revenue and expenditure. A trade-off of the Revised Grant System that it comprises an incentive for municipalities to improve the quality of municipal administration.
2. Complementary to this approach there needs to be a greater role of slum dwellers – in the form of established cooperative societies – in design, layout, infrastructure provision, organization and cost recovery of maintenance. The Urban Community Development Project in Hyderabad is an example of decentralized delivery of selected community services at low cost, with grassroots participation in their identification, execution and maintenance. (Sundaram, 1986)

The National Commission of Urbanization in their Report of 1988 comes to similar recommendations.

Other Asian countries

In this respect, it is interesting to acknowledge the experiences in other Asian countries where communities have been involved in infrastructure services. Research by Yeu-man Yeung, et al (1985) about the mobilization of people's resources in Hong Kong, Indonesia, the Republic of Korea, Malaysia and the Philippines towards improving the level of urban infrastructure has resulted in a number of findings. First, the identification of geographic and demographic units for functional efficiency proves critical. To create a sense of social cohesiveness among residents the units should not be too large. Yet very small units hamper financial and organisational competence and accountability. Second, leadership is another crucial factor. It should be assured that local leaders serve the interests of the residents of the unit and support is given – when necessary – to organize and mobilize the people and to tap their resources. Different examples prove that soloist leaders bring about the failure of projects. Third, the provided infrastructure should reflect the needs of the residents. More often than not, there is a difference between the provided and needed amenities and services. There is an urge for more flexible decentralized responses to expressed needs. Fourth, more emphasis should be given to socio-economic programmes that are often more in the direct interest of residents. Very often there exists a governmental bias towards providing physical amenities only. Finally, the findings suggest a changing awareness of public bodies towards the needs of residents and a more interactive programming of projects.

Conclusions

From the research literature it becomes clear that private sector involvement, and in particular that of community-based organizations, require changes in the provider-user relation with respect to infrastructure services. However, there are a number of warnings. Where public bodies are the sole provider and maintainer of infrastructure, the relation is rather simple. The public can claim for infrastructure provision, maintenance and repair from the same body, the public provider. Where infrastructure service has been privatized, e.g. to a cooperative society, the relation becomes more complex as the public bodies will remain responsible for the quality and quantity of the particular services, such as major off-site works. In these circumstances the users end up in a situation in which their pleas and complaints have to be addressed at either the public body, private provider or cooperative societies. When the responsibilities are not clearly defined and described, denial of responsibility of either the public body or the private provider will occur and the users will be left helpless. Justice can only be sought protest or trying to sue one of the parties through public or private law, or through political channels.

CHAPTER – III

OBJECTIVES, SELECTION OF CASE-STUDIES AND ADOPTED RESEARCH METHODS

Urban management is a decision making process in which different parties or actors play a role in the assessment, implementation and evaluation of policies, programmes, projects and operations. The efficiency of urban management can be assessed by the outcome of the delivery process of amenities and services. It is the study of this delivery process that forms the broad framework of the present research. The involvement of agencies (actors) in the delivery process is the main focus of study.

The scope of this study will be limited to the study of the partnership between public bodies and community-based organizations (or cooperatives) that take part in the infrastructure provision and management. In both research projects, the concept of Consumer Cooperatives has been implemented in a different manner.

Objectives

The main objective of this research has been formulated as:

“to gain a better understanding of the potential role of community-based organizations in the management of provided infrastructure facilities.”

More specifically, the objectives are:

1. To assess the characteristics of the provided infrastructure.
2. To analyze the socio-economic characteristics of the communities.
3. To understand the attitude of beneficiaries towards self-management of infrastructure facilities.
4. To assess the capabilities of the established community organizations.
5. To assess the framework and procedures by which the facilities were provided.
6. To study the legal, financial and organisational arrangements of public agencies supporting community managed infrastructure.
7. To suggest directions for further research in this field.
8. To formulate guidelines for planners and city administrators to implement similar projects and programmes.

The analysis and the formulation of recommendations of this research is geared towards the improvement of urban management. Future research is foreseen, that will focus on other relations in the service provision, e.g. the private sector and the non-governmental organizations versus the public sector and community-based organizations.

Selection of Case-studies

A number of additional considerations have played a role in the selection of the case-studies:

1. To relate community-based management of infrastructure to phases of implementation. It is assumed that these phases determine to a large extent the success of community-based management of provided infrastructure. Organizational arrangements, financial support, community support, expectations and response take shape during these phases. Hence, it is considered important to select case-studies that are in the implementation stage.
2. To take examples that fall within the scope of research but which have interesting differences in approach, organisational set-up, financial support of community features.
3. The limitations of available staff and time.

In this manner, two projects were identified that complied with these considerations:

- Bombay (Maharashtra), the World Bank assisted Slum Upgradation Project. In this case the Maharashtra Housing and Area Development Authority (State) and the Bombay Metropolitan Authority are involved in the implementation and post-project stages. The transfer of responsibilities to community-based societies is planned in such a manner that the communities are responsible for most of the maintenance of infrastructure within their area. The Bombay Metropolitan Authority only takes responsibility for major on-site and off-site maintenance works.
- Vishakhapatnam (Andhra Pradesh), the British O.D.A. assisted Slum Improvement Programme. In this case municipal departments are involved in implementation and post-project stages. The implementation is undertaken by the Urban Community Development Department, while the sector-departments (water, sanitation, roads) take responsibility for post-project maintenance. The transfer of responsibilities to community-based Neighbourhood Committees is to an extent where the Committees are made responsible for minor maintenance tasks, while the municipal sector-departments remain responsible for major on-site tasks of maintenance in the area.

Selection of research settlements

It was not possible to cover all slum areas that were selected by the projects in Bombay and Vishakhapatnam. A selection of a limited number of settlements was necessary and has been done on the basis of the following criteria:

- where infrastructure has been provided by the project;
- that are more or less representative for the slums covered by the project;

- where community-based organization have been established;
- for Bombay: where Agreement of Lease has been signed, and
- for Vishakhapatnam: that were studied under the Baseline and Evaluation Survey.

Since the research specifically seeks to examine the potential of public-private partnership in the effective management of urban infrastructure, it was decided not to aggregate the survey data from settlement level. It was expected that site-specific analysis of qualitative and quantitative data would provide a better insight and understanding of the issues of the delivery process of services and its problems. In this manner more valid conclusions and recommendations may be formulated for appropriate management responses and innovations to remedy the ills and inefficiencies that might exist in community-based management approaches.

Research methods

In order to reach the research objectives, 4 research methods have been used:

1. Survey of literature and project documents.
2. Visual site surveys
3. Household questionnaires
4. In-depth interviews and discussions with local leaders, community-based organizations and staff of the different agencies involved in the implementation and post-project stages.

The survey of literature and documents consists of literature from libraries that deal with community-based approaches for implementation and maintenance of basic infrastructure (see annotated bibliography in Annex V) and secondly of project reports, notes and brochures etc. that were provided by project staff.

The visual site surveys have been undertaken to assess the features of the settlements and, in particular, the quality of infrastructure provided by earlier programmes and by the current upgrading project. The collected data served as a reference for the interpretation of outcomes of household questionnaires, as well as to assess whether the planned infrastructure facilities have been installed according to the standards.

The questionnaire had two components (See Annex II):

1. Socio-economic component: household composition, age-structure, employment, income, brief settlement history, etc.
2. Infrastructure component: use of infrastructure, appreciation of the provided infrastructure, knowledge and appreciation of the concept of the SUP/SIP, willingness to contribute to cost recovery of maintenance cost, appreciation of Neighbourhood Committees established for this purpose, appreciation of implementing and management supportive agencies, appreciation of total financial burden due to SUP (includes lease-rents, housing-loans, consumption charges and

other services). For the format and respective questions of the questionnaire, see Annex II.

The in-depth interviews covered a number of standard topics and questions, dealing with the role of the respective person in the community, appraisal of the community in the sense of communal activity, (with special emphasis upon infrastructure) knowledge and appraisal of the project concept and agreements towards community responsibilities, appraisal of the support of the community for this approach, appraisal of the role of other community organizations and community leaders, their perceived tasks in the management of infrastructure, the legal, financial and organizational capabilities to do so, the perceived task of the supportive (public) agencies, the appraisal of the support by (public) agencies and expected future problems to manage maintenance of infrastructure. Special attention has been paid to the organization and payment of monthly contributions from the households, the accounting staffing the duties, etc.

Interviews with resource persons from (public) agencies and institutions that are involved in the management have also been undertaken. Resource persons from directly involved agencies have been interviewed. The interviews were of an open type, with a number of standard topics and questions. These topics covered the role of the respective person in the organization, knowledge and appraisal of the concept of the project, appraisal of the implementation of the project, appraisal of the role of (public) agencies in the management of infrastructure, their perceived tasks in the management of infrastructure, the legal, financial and organizational capabilities to do so, the perceived task of other supportive (public) agencies, the appraisal of the support by other (public) agencies, expected future problems to manage maintenance of infrastructure, appraisal of the communities in the sense of communal activity, with special emphasis upon infrastructure management.

CHAPTER – IV

**WORLD BANK ASSISTED SLUM UPGRADING PROJECT -
MHADA, BOMBAY**

4.1 Project description

a. Background of the Project

As the turn of the century, Bombay's increasing industrial and mercantile activities started to attract unskilled labourers. The migration ultimately resulted in unplanned and poorly serviced areas. Shanty towns and workers colonies became more and more evident, where housing conditions were extremely poor. In 1911, 69% of the population lived in one room dwellings. High densities were increasing due to the uncontrolled land market and lack of equitable distribution. Industrialization, urban expansion and population increase occurred simultaneously. Table 4.1 gives an overview of the population growth over the last 60 years.

**TABLE 4.1
POPULATION GROWTH IN BOMBAY**

Year	Population	Decadal growth (%)
1931	1.4 million	–
1941	1.8 million	29
1951	3.0 million	67
1961	4.2 million	40
1971	6.0 million	43
1981	8.2 million	37
1986	9.6 million	(34)

Source: Panwalkar and Panwalkar, 1989

The first official enumeration undertaken by the Government of India was the census in 1976. One reason was to assess the magnitude of the slum problem. About 2.8 million slum dwellers in 1680 settlements were identified. In 1983 the Government made some efforts to record the additional slum pockets. With these results, added to the natural increase in population of the slum population that was identified in 1976, one may estimate that in 1989 a total slum population of 924,572 households lived in 1930 slum pockets. This represents a slum population of 4.2 million, which is a conservative estimation. In addition to the estimated 0.7 million pavement dwellers it would be fair to state that about 4.9 million people in the city are residing in slums and on pavements. This is approximately half of the city population at present (Panwalkar and Panwalkar, 1989).

A vast majority live without tenure and adequate services on land under private and public ownership. Table 4.2 gives an overview of the distribution of slums and population over private and public land.

TABLE 4.2
LAND OWNERSHIP AND DISTRIBUTION OF POPULATION (1983)

Land owners	Slums	Huts	Population
Central Government	155	60,698	290,410
State Government	467	134,965	630,049
Bombay Metropolitan Authority	340	170,746	769,996
Bombay Housing and Area Development Board	50	83,103	386,486
Private Land	882	470,656	1,892,211
Total	1,894	924,572	4,291,164

Source: Panwalkar and Panwalkar, 1989

As early as 1943-44, the Government of Bombay had been allocating grants to the municipal bodies for improving unauthorized areas, providing sanitary and ventilated dwellings and wherever possible, shifting them to alternate sites. Bombay was one of the six pilot cities that were covered under Central Government's Slum Clearance Scheme of 1956. The State Government passed an independent legislation called the "Maharashtra Slum Improvement Act 1963", to coordinate and ensure speedier execution of this programme. Subsequently the Slum Improvement Scheme (or Programme) of the State Government was formulated in 1971 and reinforced the amenities programme. Accordingly the Slum Improvement Board was created in 1974. The programme became State financed as Central Government assistance stopped. In 1977, the Board was merged with the Maharashtra Housing and Area Development Authority, (MHADA). In Bombay the Programme was executed directly by MHADA, but slum improvement on municipal land was executed by the Bombay Municipal Corporation (BMC). In Bombay City most of the slums on State Government as well as on municipal land have been covered under this programme. In recent years the programme is mostly confined to the slums on private and Central Government lands. The Slum Improvement Programme comprised of:

1. Slum improvement on Government, Public and Private lands to be executed by MHADA.
2. Grant-in-aid Rs.200/- per capita which was raised to Rs.250/- per capita in 1984. This grant is proposed to be raised to Rs.300/- in exceptional cases.
3. Basic amenities:
 - a. latrines: one seat for 20-50 persons;
 - b. water taps: 1 tap for 150 persons;
 - c. street light poles: 1 pole 30 m apart; and

- d. pathway widening and paving of existing lanes as per site requirements, but within the total permissible limit of expenditure.

The amenities were provided free of cost. Till 1987-88, 408 schemes have been executed, covering 2.9 million slum dwellers. The total capital cost has been Rs.469 million (Rs.162/- per capita). Statistics show that the provided infrastructure does not reach the set standards. At present, double the planned population make use of the amenities. Moreover the quality of the provided amenities was poor and no flexibility was allowed for site-specific needs (e.g. retaining walls, land filling, water storage tanks, etc.). In many cases street lighting has not been provided as the electric company demands a minimum passage of 6 feet width. The maintenance of infrastructure had been delegated to BMC. The cost has been met from the municipal service charges which is Rs.18/- per household at present. It has been estimated that the recovery has not been able to exceed 25-30%. The state of maintenance by the BMC is very poor. The SIP has not been able to solve problems related to the lack of tenure security, encroachment, increasing densities and overcrowding.

In 1974, the Bombay Metropolitan Region Development Authority (BMRDA) was created by the Maharashtra Government. This body which has a prescriptive, regulatory and some executive functions, was to serve as a 'Think-tank' for various issues of urban planning, growth and housing.

b. Project description

With this background and experience, the period 1979-1982 witnessed a series of discussions between World Bank representatives and Government officials, in particular with officials of the BMRDA. The meetings were very much influenced by the changing concepts to solve Third World housing problems. Instead of providing mass housing, the approach of providing tenure security, sites and services and upgrading of existing structures was inserted in the policies of financing and implementing agencies. Meanwhile, in 1977 in Madras, the Madras Urban Development Project with World Bank assistance had already got off the ground.

In 1982, the BMRDA prepared a paper that formed the basis of programme documents that were to follow. The document formulated an 'Affordable Low Income Shelter Program' (ALIS) for the Bombay Metropolitan Region for a period of five years. The ALIS was developed into an action-oriented programme, jointly by officials and staff of the World Bank, BMRDA, MHADA, the City and Industrial Development Corporation (CIDCO) and the BMC, which is called the 'Bombay Urban Development Project' (BUDP).

The objectives of BUDP are described as follows:

1. to make a large increase in the public supply of affordable land, infrastructure and shelter, particularly for low income families and small businesses;
2. to substantially improve Local Government financial and administrative capacity to deliver and maintain services, particularly the infrastructure created under BUDP;

3. to strengthen Government's institutional capacity to plan, coordinate implement and evaluate ALIS/BUDP projects, programs and policies and replicate the achievements;
4. to aim at improved cost-recovery of the public sector and a major reduction in the public and private costs of shelter investment through more efficient and equitable land use planning and pricing policies, and through more appropriate performance-oriented design standards, development control and building regulations; and
5. to direct a larger proportion of private investment in land servicing and shelter construction into low cost units for low income families.

The principal components of the Project, the expected financial and physical targets and the agencies responsible for the implementation are presented in Table 4.3.

TABLE 4.3
COMPONENTS OF BUDP PROJECT

	MHADA	BMC	CIDCO	Net outlay million Rs.
A. Land Infrastructure Servicing Programme	65,000 serviced	Off-site infrastr.	20,000 sites	13,300
B. Slum Upgradation Programme	80,000 huts	20,000 huts	—	3,740
C. Local Govt. Finance Administration and Services	—	—	—	2,020
D. Technical Assistance	—	—	—	160
E. Contingencies and supervision	—	—	—	9,010
Total:				28,230

The BMRDA will have the overall coordination and monitoring responsibility of the BUDP.

The Slum Upgrading Programme aims to convert 200 slums into legal, environmentally-acceptable neighbourhoods through the provision of infrastructure improvements, long-term leasehold tenure, and loans for home improvements. A total of about 100,000 households (500,000 people) and numerous small shops and industries, occupying approximately 300 ha. of land would be covered. This would approximately 12% of the total number of households living in illegal and unsanitary slums in 1981.

Although almost 50% of all slum households in the Bombay Metropolitan Region live on private land, the SUP selected neighbourhoods for improvement that are located for about 90% on Government-owned land. The remaining 10% of the slums 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.

The Government stipulated that tenure leaseholds will only be granted to Cooperative Societies that have been registered under the Societies Registration Act. For registration, 70% of the eligible slum dwellers in an area should agree to form a Cooperative Society and accept the conditions of the SUP. Those residents who were not willing are expected to be shifted to other locations wherever available. For the legal transfer of tenure leaseholds to Cooperative Societies 100% of the eligible slum dwellers in the area should sign the Lease Agreement, after clearing off all dues to the Additional Collector prior to signing the Lease Agreement (See Annex I). Tenure is provided to Societies in the form of a 30-year renewable lease.

Eligibility criteria for inclusion of hutment dwellers in the programme has been relaxed repeatedly. This helped in quickly including more eligible households so that the next phase of implementation could start. Formerly, only those residents were accepted who were covered by the slum enumeration of 1976, listed in 1980. Later, the electoral roll of December 1984 was used as criterion for eligibility. In November 1988, it was decided that all residents who comply with the first down payment of Rs.251/- could be listed for the purpose of starting the environmental improvement works. However, residents who occupy land that is reserved for any Development Plan (Roads, Schools, Open Area, etc.) were not eligible under SUP.

As lack of community participation was a glaring drawback of the former Slum Improvement Programme, the establishment of Cooperative Societies is also seen as a tool to enhance the participation of the beneficiaries under the current SUP. The functions of the Cooperative Societies were perceived as follows:

- a. as a mechanism for infrastructure management; services which were hitherto public, were to be privatized, involving responsibility for the further maintenance, development and expansion of those services;
- b. as a cost recovery mechanism, whereby the beneficiary population is included in the fiscal network of the city exchequer. The society is expected to ensure regularity of payment (municipal tax, water tax, etc.) by its members, so as to simultaneously achieve a greater degree of beneficiary accountability to the whole scheme and a reduction in the element of "subsidy", which will help to augment the city's resource base considerably. Therefore cost recovery as a principle is essentially meant to be a pre-requisite for the change of status of slum dwellers from a parasitic relationship with the urban system to legal tax-payers living in regularized settlements;

- c. as a vigilance cell which safeguards the rights of individual members as well as the collective rights of the society on the delineated land by monitoring and controlling change of user, use of building, illegal construction, ad-hoc dwelling transformations and encroachment on, or undesirable use of, open spaces;
- d. as a liaison between the community, project staff and third parties involved in implementation of SUP, in order to enable speedy completion of procedures; and
- e. as a catalytic agent which is responsible for the quality of life of the society members and, not to just obtain a transfer of lease on paper, with other conditions remaining the same, Hence the Cooperative Society has to go beyond its technical role in the SUP, so as to sustain its viability and impact on evolutionary habitat development, particularly in generating a dynamic and cohesive community.

Keeping in mind the surveyed average income of slum dwellers, a ceiling was set for the capital cost of amenities of Rs.2,000/- per household. The planning standards for SUP-amenities have been formulated as is shown in Table 4.4. For comparison the standards of the earlier Slum Improvement Program (SIP) have also been given.

TABLE 4.4
PLANNING STANDARDS OF AMENITIES
SLUM UPGRADING PROGRAMME AND SLUM IMPROVEMENT PROGRAMME

Amenity	SUP	SIP
Lavatories	1 seat for 4-10 households.	1 seat for 4-10 households.
Water Taps	1 tap for 15 households.	1 tap for 30 households.
Drainage	A storm water/sullage drain disposal point adjacent to all dwellings.	As per requirement within Rs.150/- per household.
Pathways	All dwellings to be within 55 m of a 6 m wide road and all dwellings not on roads to have direct access to a foot-path.	As per requirement within Rs.250/- per household.
Street Lights	On all 9 m wide roads.	1 pole every 30 m.
Solid Waste Disposal	One garbage bin for 15 households and garbage bins on all 6 m wide roads, within 55 m of all dwellings.	No provision.
Estimated Capital Cost per Hut	Rs.2,000/-	Rs.1,250/-

Source: Bmrda

In order to achieve cost-recovery of the provision, use and maintenance of the amenities, a charging system has been designed for the payment of three components:

1. Lease-rent and environmental charges to be paid MHADA/BMC. The leasehold and environment improvement charges are related to the zonal location of the slum, the use and the plot size. The environment improvement cost has to be paid, by Government Order, in a 10% down-payment, while the remaining 90% is considered as a loan with an annual interest rate of 12%, to be repaid in monthly instalments over a period of 20 years.
2. Municipal taxes for the use and overall maintenance of the systems. The municipal charges (including water charges) are related to the plot size.
3. Fees to maintain the on-site infrastructure to be paid to the Cooperative Society. The maintenance charges collected by the Cooperative Society is supposed to be a flat rate for all its members.

The members of the Cooperative Societies would after signing of the Lease Agreement obtain exemption from payment of the municipal service charges of Rs.18/- per household per month.

The break-down of monthly payments by the members of Cooperative Societies under SUP is presented in Table 4.5.

TABLE 4.5
MONTHLY PAYMENTS BY HOUSEHOLDS UNDER SUP (in Rs.)

Plot Size: <10m2 10-15 m2 15-20 m2 >20 m2

Lease rent/environmental improvement charges to be paid to MHADA/BMC				
LOCATION:				
Extended	10	13	20	40
Suburbs	10	15	25	50
City	10	20	30	60
MUNICIPAL TAXES to be paid to BMC	10	16	20	25
FEES to be paid to the COOPERATIVE SOCIETY	10	10	10	10
Total:	30	38-40-45	50-55-60	71-85-95

The Cooperative Societies are expected to remit municipal taxes to the Bombay Metropolitan Corporation, to collect the leasehold/environmental improvement charges and to collect charges for maintenance of the amenities.

According to the project documents the Cooperative Society is expected to undertake the following maintenance tasks within the area:

1. Sweeping and repair of pavement and roads less than 6 metres wide.
2. Cleaning and repair of gutters along roads less than 6 metres wide.
3. Collection of domestic waste and disposal at provided disposal points at the edge of the area.
4. Cleaning and small repairs inside the sanitation blocks.
5. Cleaning and small repairs of public tapstands, floors and pillars.

The BMC would remain responsible for major maintenance tasks outside the area and, additionally, for the following maintenance tasks inside the area:

1. Maintenance and repair of pavements and roads more than 6 metres wide.
2. Maintenance and repair of gutters along these roads and pavements.
3. Maintenance and repair of main waste disposal points at the edge of the area and collection of waste from there.
4. Major maintenance and repairs of public sanitation facilities and emptying of collection tanks.
5. Major maintenance and repairs of the water supply network feeding the public tapstands.

Apart from the above SUP components and payments the members can apply for a Housing Improvement Loan from the State Government. Previously, eligibility for HIL was possible only after the expiry of six months from the date of signing of the Environmental Improvement Lease Agreement (See Annex D). In many slums the signing of the Agreement is delayed by unwilling residents, depriving other residents of the HIL. A recent Government Resolution (GR 30-1-1989) declares that individual members of the Society can avail of the HIL immediately after 70% of the residents agree to participate in SUP on a cooperative basis. The conditions of loan have evolved to allow for hut improvement of walls, ceiling, flooring, etc. and even reconstruction in site, or in a realigned position. For the latter the Cooperative Society has to give approval. The Loan is granted according to level of household income and it ranges from Rs.5,050/- to Rs.14,240/-. The loan is at 12% interest rate with monthly instalments over a period of 20 years.

The annual interest rate of 12% for environmental improvement charges and housing improvement loans has been taken to account for inflation as well as for the project price contingencies over the project period. The interest rate is higher than the interest rate that is charged by MHADA in its conventional HUDCO-financed schemes (5-7%).

In this manner, the SUP aims at a 94% direct cost recovery from the beneficiaries through charges for tenure lease, infrastructure and loans for home improvements and expansion, in the form of outright cash down payments and monthly instalments on loans to beneficiaries.

At the time of the research (March 1989), the progress of the SUP has reached the following stage.

TABLE 4.6
PROGRESS OF SUP (March 1989)

Indicator	Total
Total notified slums by Study Group BMRDA: ¹	251
Engineering Feasibility (No. of slums):	137
Number of slums willing to participate in SUP:	79
No. of societies that have paid down-payment: ² (Total 10,948 households paid)	107
No. of societies where environmental improvements are completed:	65
No. of societies that are registered: (2,958 households)	31
No. of societies that have signed Agreement of Lease (214 households):	2

1. A slum comprises of an area that has been geographically demarcated by the Study Group of BMRDA for slum upgradation. A slum area might be a part of a larger slum area.
2. Within a slum pocket several Cooperative Societies may be established. In larger slum pockets (more than 80-100 huts) this is often the case.

Although the project has been launched some years ago, the total number of Cooperative Societies that have signed the Agreement of Lease is as low as two only.

4.2 Organization of the research

Basic aggregated socio-economic data on the slums covered by the SUP, was available from the project offices. However more detailed data was not available about settlements that are covered by the SUP. The BMRDA had commissioned Kirloskar Consultants (Pune) to conduct a socio-economic survey in 184 slums. The study encompassed the collection of community-based data and canvassing of household questionnaires. At the time of our research, the first results were not available.

By applying the criteria for settlement selection, some 11 slums were identified that complied with at least three of the selection criteria. These were:

1. Subhash Nagar, Goregaon West.
2. New Shivaji Nagar, Ambivali, Andheri, West-Bombay
3. Prabhat Colony, Santa Cruz East.
4. Chunnabhatti, Muktadevi Nagar, Sion.
5. Vijay Rahiwashi Sangh, Kurla, East-Bombay.
6. Suswagatam Nagar, Chembur.
7. Rajaram Nagar, Chembur.
8. Ameer Baug, Chembur.
9. Nahur Gaothan, Mulund West, West-Bombay.
10. Gavanpada, Mulund East, East-Bombay.
11. Kadampada, Mulund West, West-Bombay.

It was decided to cover each of the 11 slums with a sample of approximately 10% of total number of households. This resulted in a total of 200 questionnaires. Through assistance of the Community Development Cell of MHADA, SUP Wing, the household questionnaires were organised and canvassed. The questionnaire is given in Annex II.

Interviews with the community leaders and other resource persons affiliated with Cooperative Societies were conducted in 5 settlements: Vijay Rahiwashi Sangh, Suswagatam Nagar, Rajaram Nagar, Gavanpada, and Kadampada. The interviews covered a number of standard topics and questions, as indicated in chapter 3.

Interviews with resource persons from (public) agencies and institutions that are involved at present in the management have also been undertaken. Resource persons from directly involved agencies like the MHADA, BMRDA and BMC have been interviewed. Secondly, the former head of the Community Development Cell has also been interviewed.

FIGURE 4.1
LOCATION OF 11 RESEARCH SETTLEMENTS IN BOMBAY

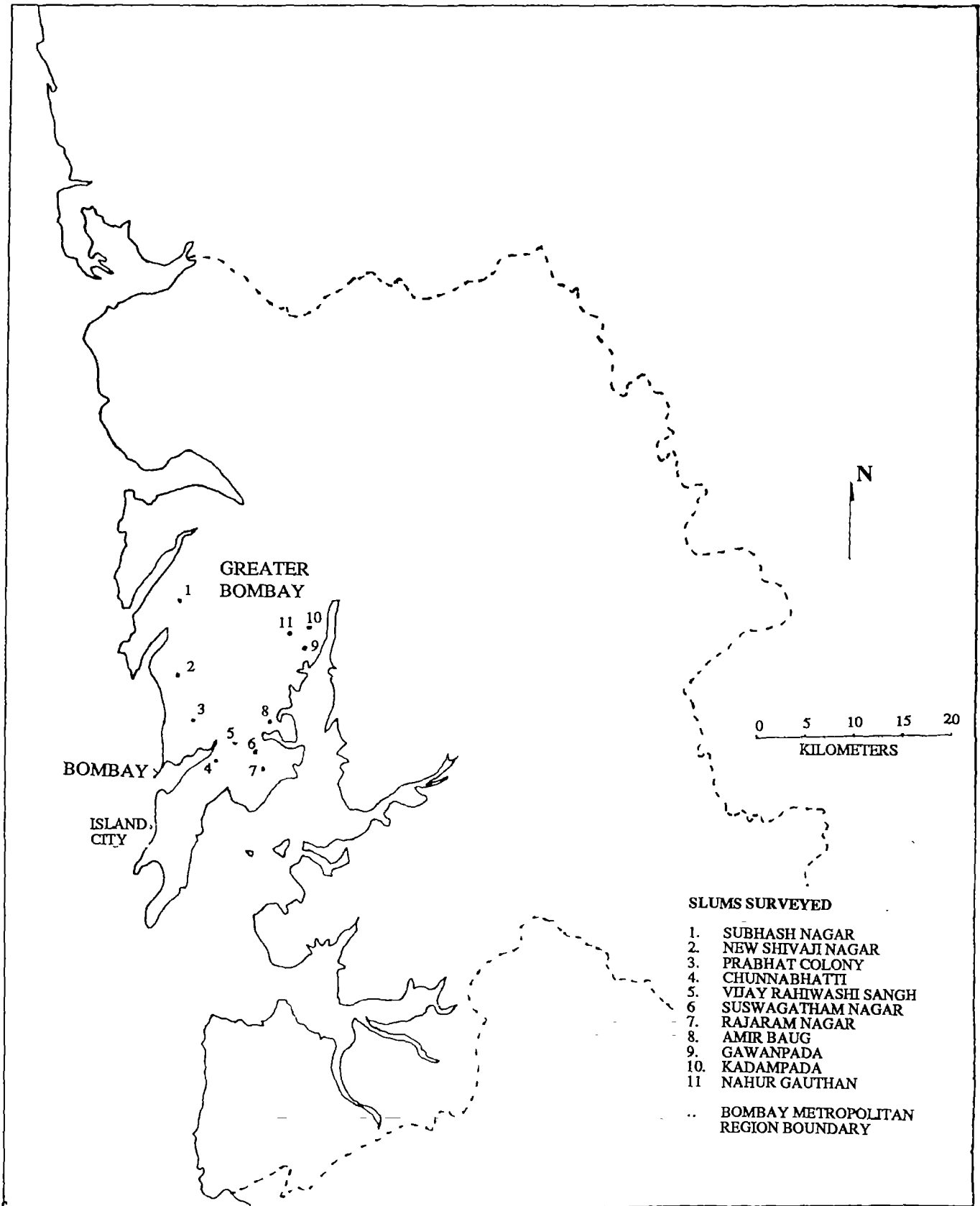


TABLE 4.7
GENERAL DATA: 11 SAMPLED SLUMS

Slum Names:	1	2	3	4	5	6	7	8	9	10	11
	Subash Nagar	Shivaji Nagar	Prabhat Colony	Chunna- bhatti	Vijay Rahiwashi	Suswagatam Nagar	Rajaram Nagar	Ameer Baug	Nahur Gaothan	Gavan- pada	Kadam- pada
No. of huts:	37	80	70	90	115	215	70	180	100	445	177
Sample size (%):	10	20	17	11	13	12	15	11	17	11	11
Household size;	5.3	4.9	5.3	5.0	4.3	5.0	5.1	4.6	5.0	5.1	5.2
Illiteracy (%):	0	18	17	10	25	35	28	12	12	15	23
Primary/Secondary school (%):	86	70	78	90	72	64	69	83	73	79	73
Persons employed per household:	2.3	1.8	1.4	1.1	1.6	1.6	2.2	1.0	1.4	1.4	1.7
Aver. stated income: in Rs.:	2467	1350	1395	1465	1367	1339	1340	1740	2026	1914	1395
Income/Expenditure Categories:											
< 700 Rs.	0	18	8	0	13	19	9	0	0	4	35
701-1500 Rs.	25	45	50	80	60	46	64	65	42	33	30
1501-2500 Rs.	0	31	42	20	27	35	18	20	29	43	20
> 2500 Rs.	75	6	0	0	0	0	9	15	29	20	15

4.3 Research: 11 Settlements

It was perceived that analysis at each of the 11 settlements would provide a better insight and understanding of the potential of community-based management. However, during the data processing, this approach for analysis did not prove justifiable. Thus, it has been decided to present the findings of analysis of case-studies in Bombay in an aggregated manner. Where site-specific circumstances require more attention they will be elaborated upon.

The results of the household questionnaires of each of the 11 slums have been presented in a Summary Data Sheet. These 11 Summary Data Sheets are given in Annex III. Secondly, an analysis report of each of the 11 slums has been made, which can be found in Annex IV. On the basis of this information, Table 4.7 presents the basic socio-economic data about each of the 11 studied slums. At the time of the research, only two slums have signed the Agreement of Lease: Subash Nagar (No.1) and Kadampada (No.11).

Housing situation (Table 4.8)

None of the slums have been established recently. Most dwellers have lived there for over 10 years and some dwellers have even lived there for over 30 years. Most slums should be considered as reasonably consolidated, with an established and often regular lay-out. Within each slum, huts can be found built of semi-permanent materials such as wooden walls, corrugated iron or plain iron sheet walls and roofs, and floors that are finished with mud. Thatched roofs can also be found. In Vijay Rahiwashi (No.5) the use of semi-permanent materials is dominant. However, in most slums, a range of huts can be found that are built of permanent materials: brick and concrete block walls, corrugated iron roofs, tile roofs, cement-plastered floors and walls. Gavanpada (No.10), at the other end of the scale, is an example where the use of permanent materials is dominant. Domestic electricity supply is quite common in the studied slums. The rate of consolidation could not be explained properly from the available indicators, such as income or environmental conditions or market value of the land inhabited. Apparently, other factors such as assessment of risk of eviction and individual priority to housing improvement play a role. These indicators have, however, not been assessed in this research.

From the household survey and the interviews with local resource persons, it became clear that housing emerged as the main focus of residents in respect of slum upgradation. Provision of tenure and access to housing improvement loans would provide the basis for such improvements.

Eligibility and exclusion of non-members (Table 4.8)

Community members that are considered to live within the area of a Cooperative Society, but are excluded from taking part in the Society due to project eligibility criteria can pose a threat to the success of SUP. In 4 out of 11 studied slums potential eligibility

problems do exist. For example, in Shivaji Nagar (2), Suswagatam Nagar (6) and Gavanpada (10), community members have been excluded as they occupied land meant for a Road Development Plan. In Suswagatam Nagar (6) they have tried to solve this problem by resettling some 12 dwellers in an adjacent area. In Shivaji Nagar (2) and Gavanpada (10) the eligibility problems remained unsolved. In Kadampada(11), the fourth settlement, some dwellers within the demarcated are occupied private land and could not be enlisted for a Cooperative Society. The Cooperative Society has solved this potential problem by finding an agreement with these dwellers. These non-eligible dwellers agreed to pay the maintenance charges of Rs.10/- per month per household.

Exclusion of residents that live outside the area but have easy access to the facilities is another threat to community based management. Sense of belonging and willingness to pay for maintenance is only feasible when exclusive use by the members of the Cooperative Society is achieved. This phenomenon is rather common in the studied slums. Four settlements are an exception: Prabhat Colony (No.3), Vijay Rahiwashi (No.5), Nahur Gaothan (No.9) and Kadampada (No.11). Here exclusion of non-members from outside is not an issue, due to the fact that the Society is physically secluded from other residential areas by a wall, road or simply by distance. In all other areas exclusion of non-members from outside the area is not possible due to the easy access to particular sanitation and water facilities. Hence, this situation poses a serious threat to the success of SUP.

Level of organization and social cohesion (Table 4.8)

A major factor for success of community-based management of infrastructure is the level of organization and social cohesion. It has been observed that in five slums, organizations existed before the SUP. These slums are Subhash Nagar (No.1), Shivaji Nagar (No.2), Prabhat Colony (No.3), Vijay Rahiwashi (No.5) and Kadampada (No.11). Their organizations undertook activities that relate to culture, religion, youth, women and housing. The Cooperative Societies evolved from these existing organizations. In the other slums, the CS constitutes a rather new element.

Social cohesion is difficult to assess and one has to refer to reactions during household questioning and interviews with local resource persons. Referring to the earlier mentioned five slums, except for the large slum of Vijay Rahiwashi (5), the slum areas show a relatively high social cohesion. Moderate cohesion was observed in Vijay Rahiwashi (5), Nahur Gaothan (9) and Gavanpada (10). In the other three slums where no organizations existed before SUP, the social cohesion has been assessed as low.

Leadership, decision-making and Cooperative Society (Table 4.8)

In the literature (Yeu-man Yeung) leadership has been assessed as one of the key-factors for community-based resource mobilization. When strong leadership is coupled with the establishment of a Cooperative Society, the Society can play an important role in the task of community-based management of provided infrastructure. In four slum settlements we observed a prominent role of leaders through the Cooperative Society.

TABLE 4.8
GENERAL DATA AND COMMUNITY FEATURES IN BOMBAY

Slum Names:	1	2	3	4	5	6	7	8	9	10	11
	Subash Nagar	Shivaji Nagar	Prabhat Colony	Chunna- bhatti	Vijay Rahiwashi	Suswagatam Nagar	Rajaram Nagar	Ameer Baug	Nahur Gaothan	Gavan- pada	Kadam- pada
General Data:											
Part of larger slums:	yes	yes	-	yes	-	yes	yes	yes	-	yes	-
Signed Agreement:	yes	-	-	-	-	-	-	-	-	-	yes
Housing situation: ¹	semi- perm.	semi- perm.	semi- perm.	semi- perm.	temp.	semi- perm.	semi- perm.	semi- perm.	semi- perm.	perm.	semi- perm.
Remaining environ. problems: ²	-	flood.	-	dens.	san.	san.	flood.	dens. san. flood.	flood.	-	-
Community:											
Comm. organisations before SUP:	1	2	1	-	1	-	-	-	-	-	2
Social cohesion: ³	high	high	high	low	mod.	low	low	mod.	mod.	mod.	high
Eligibility probl.:	-	yes	-	-	-	yes	-	-	-	yes	yes
Problems exclusion residents outside area:	yes	yes	-	-	-	yes	yes	yes	-	yes	-
Role leaders in CS: ⁴	mod.	mod.	pos.	low	mod.	low	low	low	mod.	pos.	pos.

Legend: 1. semi-perm. = semi-permanent; temp. = temporary; perm. = permanent
 2. flood. = flooding; dens. = density; san. = sanitation
 3. mod. = moderate
 4. mod. = moderate; pos = possible

These were Prabhat Colony (No.3), Gavanpada (No.10) and Kadampada (No.11). In four other slum areas, the role of CS has been moderate so far: Subhash Nagar (No.1), Shivaji Nagar (No.2), Vijay Rahiwashi (No.5) and Nahur Gaothan (No.9). In other slums the role of the CS has been weak. In these cases there has been little leadership, social cohesion or any community-based activities. Moreover, in Chunnabhatti (No.4) the establishment of a CS and the appointment of representatives has brought the settlement into some kind of turmoil, questioning the status of its emerged leaders.

The existence of adequate leadership in the Cooperative Society would have benefited the upgrading process and would have avoided conflicts. We feel that especially training of CS leaders in communication and decision making techniques would have benefited the project. As women are the main beneficiaries of the provided infrastructure, it is surprising that women have not been involved in a more direct way. In respect of their interest in properly functioning water and sanitation facilities, it is difficult to understand that women have not been involved in establishing the Cooperative Society, formulating post-project duties and dividing tasks. Men dominate the contacts with project staff, the communication with the members of the Society and community decision-making. One reason is that men are automatically listed as the legal heads of households with the Cooperative Society. Hence, men become the registered members of the Cooperative Society and holders of the tenure lease. It would be favourable to have more female members, firstly, in view of the good experience so far of issuing tenure lease to women to enhance settlement development and, secondly, to enhance the establishment of sustained community-based maintenance of infrastructure.

Community response to SUP

At the time of the research the response of the studied slums to the SUP has been low to moderate. Only two slums Subhash Nagar (No.1) and Kadampada (No.11) have responded positively to the project and done all necessary efforts to come to signing the Agreement of Lease. The response in four slums, Shivaji Nagar (No.2), Chunnabhatti (No.4), Suswagatam Nagar (No.6) and Rajaram Nagar (No.7) has been particularly low. In other slums the response has been moderate. The lack of social cohesion and leadership as has been described above, does not provide a sufficient explanation. Other circumstances that provide an explanation emerged from the interviews with local resource persons:

1. Conditions for eligibility and loans for housing improvement have been relaxed time after time under the pressure of achieving progress for SUP.
2. At the time of the research, elections were due. Early statements of politicians indicated that the concept of SUP would be criticized in view of the social inequity that SUP would create. Especially the issue of full cost-recovery would be attacked in the election campaign with the possible outcome of reducing the environmental improvement charges.

Under these circumstances one can understand that communities were somewhat

reluctant to enter into the final phase of signing the Agreement of Lease. They rather preferred to stall for time in order to possibly benefit from new Government Orders, revision of project conditions and the outcome of elections.

Infrastructure situation (Table 4.9)

All slum areas had some kind of infrastructure before SUP. Most of it had been provided by the Bombay Metropolitan Authority over a number of years. At least five slums had also benefited from SUP's predecessor the Slum Improvement Programme (See SIP-standards in Table 4.4). These slums are: Chunnabhatti (No.4), Suswagatam Nagar (No.6), Rajaram Nagar (No.7), Ameer Baug (No.8) and Nahur Gaothan (No.9). The SIP-infrastructure was in a deplorable state due to lack of maintenance and was over-used. In other non-SIP slums some water supply was provided by BMC, but was used intensively. Sanitation facilities did not exist in these slum areas, and open air defecation was quite commonly practiced. Drainage or solid waste facilities were not provided for and some communities had made provisional solutions for proper drainage by plastering the pavements and constructing gullies.

Under SUP additional water tapstands were provided, existing water tapstands were covered with asbestos sheet roofs, existing latrine facilities were re-plastered or newly provided, pavement and gutters were constructed. In some settlements the residents took the opportunity to make additional efforts. For example, in Subhash Nagar (No.1) the community provided ceramic tiles to finish the latrine floor. In Gavanpada (No.10) residents have constructed additional metered connections for private use by some households in small alleys. In Kadampada (No.11) the residents have contributed to construct a community office at the back of the provided latrine.

One should note that these slums have a relatively strong social cohesion, good leadership, a high level of organization and community activities. In other slum areas additional efforts have not been undertaken. Here social cohesion and community organization is much weaker. From the surveys it shows that all residents use the on-site infrastructure.

Appreciation of the environmental situation after SUP works (Table 4.9)

Improvement of the environmentally unacceptable situation is the main objective of the SUP. Where considerable improvement is not accomplished, the creditability of the SUP-concept and the willingness of people to manage on-site infrastructure is seriously affected. In spite of the efforts of SUP, environmental problems still exist in 6 slums and constitutes a permanent threat to health and well-being: flooding during rainy periods, overflowing gutters and overflowing collection tanks of sanitation blocks. In Chunnabhatti (No.4) sanitation facilities are not operational and people have to go outside for defecation. In Gavanpada (No.10) the sanitation facilities are insufficient and here some of the residents prefer to go outside as well. Most alarming is the situations in Ameer Baug (No.8) where overflows of the adjacent collection tank of sanitation blocks constitutes a direct health risk to its residents. In order to alleviate these situations a

more integrated approach will be required, taking infrastructure measures that effect several slum areas. Especially adequate drainage, sanitation and solid waste collection cannot be achieved at the level of one single slum pocket or Cooperative Society. So far, this integrated approach has been lacking. In only four slums, Subhash Nagar (No.1), Prabhat Colony (No.3), Gavanpada (No.10) and Kadampada (No.11), environmental problems have been alleviated and have become negligible.

The researchers have made an assessment of the environmental impact of SUP, based on alleviation of present problems and improvement of living conditions. In two settlements the impact of SUP has been considerable: Subhash Nagar (1) and Prabhat Colony (3). In 4 settlements the impact has been reasonable: Shivaji Nagar (3), Vijay Rahiwashi (5), Gavanpada (10) and Kadampada (11). In the other 6 slums the impact has been low.

The appreciation of the SUP is strongly related to the environmental impact of SUP in the studied slums. In the six cases where the environmental impact has been low the dissatisfaction with the works of SUP is largest. The main points that were mentioned by the residents are the low quality of the works, the remaining insufficiency of sanitation facilities, remaining problems of overflowing latrines and gutters and finally the remaining problems of low water pressure and few hours of water supply.

The following observation is important to make. In Nahur Gaothan, residents were complaining that the total investment in their area does not comply with the amount of Rs.2,000/- per hut on which the environmental improvement charges have been based. In respect of the low quality of the works they suspect the value of the actual work to be lower. Their suspicion is further supported by information provided by the sub-contractors that executed the works. This observation raises the argument whether Cooperative Societies should be considered as a client and MHADA/BMC as a supplier. In terms of market mechanism MHADA/BMC has a monopoly in providing amenities. However, it can be argued that since Cooperative Societies are going to fully re-pay capital and maintenance costs, they have bargaining power to ensure that quality complies with the set charges. Its implication might be that MHADA/BMC must provide insight into the actual expenditures in slum areas, which will trigger a range of negotiations and additional demands.

Infrastructure management and the Cooperative Society (Table 4.9)

To get an indication for the possible establishment of maintenance routines by the community and the Cooperative Society, it is important to know whether residents are aware of the future tasks of the CS in respect of infrastructure maintenance. From the household surveys it was found that residents, in general, are reasonably aware of the future tasks of the Cooperative Society. Much credit goes here to the Community Wing of MHADA and the community organizers in the slums. The residents in Rajaram Nagar (No.7) are an exception and have little awareness about the role of the CS. In all slums, residents consider, (when asked in detail) the BMC still responsible for quite a number of tasks. Especially, the repairs and maintenance of latrines and gutters are mentioned frequently.

TABLE 4.9
INFRASTRUCTURE DATA AND COMMUNITY BASED MANAGEMENT

Slum Names:	1	2	3	4	5	6	7	8	9	10	11
	Subash Nagar	Shivaji Nagar	Prabhat Colony	Chunna- bhatti	Vijay Rahiwashi	Saswagatam Nagar	Rajaram Nagar	Ameer Baug	Nahur Gaothan	Gavan- pada	Kadam- pada
SIP infrastructure:	-	-	-	yes	-	yes	yes	yes	yes	-	-
Environm. impact SUP: ¹	cons.	reas.	cons.	low	reas.	low	low	low	reas.	reas.	reas.
Additional comm. efforts:	yes	-	-	-	-	-	-	-	-	yes	yes
Dissatisfaction: ²	SWC	WS SWC qual.	SWC	SAN DRAI qual.	SAN	SAN WS DRAI	DRAI qual.	SAN qual.	qual.	SAN SWC	SWC
Present maintenance practices:	yes	-	yes	-	yes	-	-	-	-	yes	yes
Conclusion:											
Expected community- based management: ³	yes	poss.	yes	no	poss.	no	no	no	poss.	poss.	yes

Legend: 1. cons. = considerable; reas. = reasonable.
 2. SWC = Solid Waste Collection; WS = Water Supply; SAN = Sanitation; DRAI = Drainage; qual. = quality of works.
 3. poss. = possible

Another indicator is whether maintenance routines already exist or have been established. The survey revealed that actual maintenance practices do exist in five of the eleven studied slum areas. Main tasks are done by the households like sweeping of pavement. Cleaning and sweeping of gutters are also practiced in Subhash Nagar (No.1) and Prabhat Colony (No.3). In Vijay Rahiwashi (No.5) residents collect garbage and dump it outside the area. Kadampada (11) is the only settlement where a sweeper has been employed to regularly sweep the area and to collect and dump the garbage outside. In two settlements it was being considered to employ someone on a regular basis to do similar sweeping and cleaning tasks. In all other settlements no maintenance routines have been established. At the time of the research, little priority was given to these future tasks by communities as well as by project staff. However, it is of utmost importance to initiate maintenance routines right from the start so as to prevent early damage and dilapidation. Especially sanitation and drainage are rather sensitive to delayed maintenance, causing nuisance and encouraging vandalism and misuse. During the research the maintenance charge of Rs.10/- per household per month was being collected by the Cooperative Societies in all studied slums, except for Gavanpada (No.10). A majority of the residents considered this amount as affordable.

The researchers have assessed the likelihood that community-based management will be established or sustained in each of the studied slum areas. This assessment has been based on a number of indicators that are expected to have a positive, negative and neutral effect. These are:

TABLE 4.10
INDICATORS FOR COMMUNITY-BASED MANAGEMENT
INFRASTRUCTURE

Positive	Negative	Neutral
1. Social cohesion.	1. Environmental problems after SUP	1. Housing situation.
2. Prominent role leaders in CS.	2. Dissatisfaction with SUP.	2. Income/employment.
3. Positive environmental impact SUP.	3. Problems to exclude residents outside area.	3. Eligibility.
4. Existing organizations.		4. Education.
5. Additional efforts SUP.		5. Solid waste problems.
6. Presence of Community Hall.		
7. Good quality of SUP works.		
8. Existing maintenance routines.		
9. Access to housing improvement loan or the like.		

The researchers feel that with the application of these indicators it is possible to predict if community-based management is likely in each settlement. In 3 settlements (Table 4.9) the researchers expect positive results. In 4 settlements community-based management is possible when the impact of SIP and overall environmental improvement, the competence of leadership in the CS and the social cohesion is strengthened. In the other 4 settlements community-based management is unlikely as there are too many problems to overcome. Future research has to prove whether this assessment is justified.

4.4 The Role and Impact of Institutions

The research team has had several discussions with staff within the several implementing agencies of SUP. Their findings in respect of efficient management and future of the SUP are reflected in this chapter.

The World Bank assistance to the BUDP has had a large impact on the conceptualization of the project of SUP. The elements of full-cost recovery of capital cost and providing tenure security was particularly stressed by the World Bank. Secondly, the inclusion of slums on private land has been due to their insistence.

The establishment of Cooperative Societies to be agents in the BUDP, is an indigenous concept.

The Bombay Metropolitan and Regional Development Authority

The BMRDA has been involved from the beginning and one can say that the BUDP is their brainchild. The first ALIS document was prepared by BMRDA staff. The Executive Committee has been established to become responsible for the program and project policy and direction, which includes rent control and property tax reform. The BMRDA Technical Committee has been formed to take up coordination, monitoring and evaluation of BUDP since 1982. See Organization Chart 4.1. Thus, the BMRDA staff have been following closely and directing the developments of BUDP and in particular the SUP. During the recent years of implementation, the problems and potential of SUP became evident. A major problem identified by BMRDA is the coordination between the implementing bodies of MHADA and BMC.

Secondly, the issue of social equity and political opportunism is a constant threat to the SUP. Why should capital and running costs of civic amenities be recovered from low-income dwellers, while in other middle and high-income areas the provision and maintenance of infrastructure actually highly subsidized? The answer touches the broader issue of urban financial management and social justice, which cannot be solved by a public body such as the BMRDA. However, the susceptible part of SUP is the exposure to political opportunism. At the time of the research, the issue had not been raised, but with the elections that were due in November 1989 the threat was evident. Not only is there an external threat to the SUP, but also within BMRDA the faith in the SUP-concept is decreasing. The political eligibility of the BUDP under the roof of

BMRDA is at stake. Only by a convincing success of the BUDP and in particular SUP, can the eligibility be secured.

Thirdly, opposition is prevalent from the public bodies that have to transfer the land to Cooperative Societies, thus losing jurisdiction. Added to this are the many problems to acquire private land.

Hence, skepticism and gradually disowning of the concept can be observed within BMRDA.

The Maharashtra Housing and Area Development Authority (MHADA)

The implementing body of the case study areas is MHADA. MHADA, established in 1977, is under the Government of Maharashtra Department of Housing and is the principal agency responsible for statewide housing and area development schemes. MHADA undertakes Housing and Land Development, Repair and Reconstruction of Chawls and Slum Improvement Works. The latter accounts for approximately 10% of their expenditures. MHADA takes care of the project activities for slums on Government of Maharashtra and private land. See Organization Chart 4.1. For the BUDP a separate wing has been established, with a separate Director, Administration, Estate Management, Finance, Planning and Engineering Sections. For implementation of the SUP, a Community Development Wing has been established.

The Engineering Section is responsible for estimating the required infrastructure using the standards that have been shown in Table 4.4. Very often, lack of space or Development Plan reservations make it difficult to reach the desired level of infrastructure for whole communities. Moreover, the planned infrastructure is an overlay or upgradation of amenities that have been provided under SIP or other programmes that were in bad shape and lacked maintenance. The standards that have been set have been applied in a rigid manner, allowing little flexibility for adjustment to site-specific needs and circumstances. When the plans were drafted the BMC had to be approached for clearances in respect of off-site water supply, sewerage, electricity and waste disposal connections and services. Meetings are held every fortnight between the engineers of MHADA and BMC. After the clearances have been obtained the plan and location is discussed through the Community Development Wing with the slum dwellers. Discussions could only deal with locations of amenities, not with number of amenities, which were already set by the project standards and cleared by the BMC. Thus, community involvement in early engineering decision-making does not exist.

When the plans are made, the society is established and subsequently agrees with the plan. Thereafter contractors are invited for tendering and the works are granted. As observed, the quality of the work varies and is in many pockets quite low. Thus, quality monitoring has not been effective or is non-existent and slum dwellers complain about the work that has not been done properly. The extension of water supply pipes have been laid on the surface of existing pavements, instead of being safely buried, serves as an example. Another example is the provision of sanitation blocks without a water

connection for flushing. Under SIP this has been a common practice, but it has been continued under SUP. BUDP engineers comment that the BMC does not give clearance for a water connection in sanitation blocks. MHADA has not responded to this unfavourable situation, in spite of the complaints of the slum dwellers. However, with the SUP concept the slum dwellers have become reluctant to sign the Agreement, and demanded a better product. It creates an awkward impasse for MHADA, to which no adequate response has been found. It shows that the engineering department did not change their attitude as a monopolistic donor of public goods, for which the slum dwellers should be grateful. Without a proper change of attitude to quality-conscious and client-oriented engineering the SUP-concept will fail. This means early Society involvement in engineering decision-making, flexibility in applying standards, strong monitoring of the execution of the work and safeguarding the delivered quality of the amenities.

It has not been proven that the actual capital cost of the amenities has reached Rs.2,000/- per hut on average, on which the environmental improvement charge has been based. Slum dwellers have been inquiring after a specification of the actual investment cost in order to determine the logic and justification of the Environmental Improvement (E.I.) charges. Although the Government has chosen an aggregated concept for E.I. charges (zonal location and plot size), the slum dwellers express the need for a site specific and individual approach. It is most likely that the present concept will be objected to, leading to further delay in signing of Agreement of Lease.

The Engineering Wing is much pre-occupied with the implementation of the works. After transfer of the amenities to the Society it is perceived that their responsibility ends. Post-project management of infrastructure does not interest them. It is considered the sole responsibility of the Cooperative Society that does not need outside support. Guidelines or support programmes for enhancing proper preventive and corrective maintenance of amenities have not been considered.

The Community Development Wing was established to enhance the development of the slum, i.e. to increase their accountability, creditability and to give a greater clout in decision making. The community development organizers assisted the communities in order to acquire tenure, amenities and socio-economic and health assistance from the different public bodies, non-governmental and private resources. The establishment of a Cooperative Society was conceived as a tool to enforce this community development process. Thus, the Community Development Wing would be a dominant part of the implementing body of SUP. The scope of work of the CD wing has been limited over the years. Their main task is to assist the slum dwellers to establish Cooperative Societies (application, reservation and registration procedures), to be the intermediary between the Engineering Wing and the slum dwellers, to deal with reallocation in case of DP Reservations, to deal with problems and disputes and lately to assist in the application of Housing Improvement Loans. Although community workers are dedicated and do a good job, the scope of the CD wing has changed. While the former objective was to enhance community self-development, nowadays it is to obtain the communities' cooperation for implementation of the project. Hence, the earlier perceived important role of the CD Wing

**CHART 4.1
ORGANIZATION FOR SUP COORDINATION AND IMPLEMENTATION**

Land Ownership: BMC, GOM & PVT

Activities and Responsibilities

- | | | |
|----|--|---------------------------------------|
| 1. | Program and Project Policy: direction including property tax reform. | BMRDA Executive Committee |
| 2. | Coordination: monitoring and evaluation of ALIS/BUDP implantation at technical level. Management of shelter receiving fund. | BMRDA & ALIS/BUDP Technical Committee |
| 3. | Land Acquisition: collecting data on ownership, proceedings for transfer measurements of land possession and transfer of title and payment of compensation. | BMC, MHADA |
| 4. | On-site works: planning, design, costing, preparation of bid documents tendering and construction for reclamation, water supply, sewerage, roads and drains and community facilities. | BMC, MHADA |
| 5. | Off-site works: land acquisition, planning, design, costing, preparation of bid documents, tendering and construction for water supply, sewerage, roads, storm water drains and electricity. | BMC, MHADA |
| 6. | Estate management: establishing sales price, advertisements, receipt of applications, identification of beneficiaries and collection of down payments, monthly plot payments, and service and maintenance charges. | BMC, MHADA |
| 7. | Home Expansion/Improvement Loans: issuance and payments collection. | BMC, MHADA |
| 8. | Maintenance and Delivery of services, including procurement of equipment and of equipment and civil works for solid waste collection, roads and drains. | BMC |
| 9. | Improving financial, accounting and operational management. | MHADA |
-

Source: WB Staff Appraisal Report, 1985.

with MHADA has been decreased to a more intermediary one, involving marketing of concepts, ideas, technologies and procedures connected with the SUP.

Post-project issues of maintenance are explained by the Community Development Officer to the Society members. Assistance for administration, book keeping, etc. is not required as most slum dwellers are sufficiently educated. Support or training programmes for managing the amenities are not planned for. It is left to the communities to organise the maintenance. Although it is planned to monitor the slums regularly after the project has been completed, it is however doubtful that this will take place as the officers will be very occupied with work in slums elsewhere.

A separate issue is the content of the Agreement of Lease (See Annex I). The Agreement is a legal document signed by the members of the Cooperative Society, and countersigned by the Deputy Legal Adviser of MHADA. The Agreement confirms the right of tenure and specifies meticulously the rights, restrictions and duties of payment of leasehold and environmental improvement charges. In respect of the duties and rights of property and management of amenities the Agreement remains vague and is not comprehensive.

Article 3(i) states (Annex I), e.g.:

“3. The Society doth hereby covenant wit the Authority in the following manner that is to say:

(i) to keep and maintain the open space of the said plot of land in a clean and sanitary conditions;”

and Article 4 states:

“The Society shall be responsible for maintenance of facilities provided for or on the said plot of land. The maintenance shall involve sweeping and cleaning of pathways, collection of household garbage and carrying it to the nearest municipal dust bin, maintenance and replacement of common conveniences, maintenance and replacement of common structures for social facilities such Balwadi, Dispensary, etc. The society shall be entitled to levy suitable service charges on its members or users of the facilities for this purpose.”

The two articles are not specific about water supply facilities, sanitation blocks or drainage. Hence, one could even argue that the Society is not responsible for the maintenance of the facility, making it difficult for members of sue the president or secretary to fulfil their duties. The Agreement that could serve as a reference, support and legal document to ensure proper maintenance of amenities, does not serve this purpose. In a sense, it is not comprehensive and ambiguous.

The Bombay Municipal Corporation (BMC)

The Bombay Municipal Corporation – the third implementing agency – established in

1888, is the largest Municipal Corporation in India, and among the largest local Governments in the world. Under SUP the BMC would be responsible for providing off-site infrastructure and become responsible for maintenance of off-site infrastructure after the Agreement of Lease has been signed. BMC would also design and implement improvements under the SUP for about 20,000 slum households who live on BMC owned land. BMC is the main implementing agency for the World 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 required by the BUDP components in BMC. Water supply and sewerage fall under the Water Supply and Sewerage Department (WSSD). Electricity and transport fall under the Bombay Electricity and Transport Undertaking (BEST). The Solid Waste Management Department takes care of the garbage collection. Separately a Health and Roads & Drainage Department exists. The City Engineer is responsible for the slum improvement and road construction.

As said, the BMC Departments have to give clearances for water supply, sanitation, drainage and street light works under SUP to MHADA. After the BMC clearance, MHADA can start tendering and construction. However, the implementation schedule of MHADA does not automatically lead to subsequent off-site infrastructure works to be undertaken by BMC. Thus, provided water taps remain unconnected, drainage outlets are not connected to main storm water drains, adjacent sanitation facilities remain in bad shape and create an unsanitary environment, garbage dumps are inadequate and garbage collection is insufficient. In other words, the provision of amenities under SUP might be considerable, but the improvement of health conditions in slums is poor. A main reason is the lack of coordination between MHADA and BMC in respect of on-site and off-site infrastructure works.

At the background of this state of affairs emerges the struggle for competence. Two agencies are implementing similar programmes within the same metropolitan boundaries, aiming at the same target groups, while funds have to be shared. However for the implementation MHADA depends on off-site works by BMC, e.g. water connections are often not provided as BMC demands a Rs.30/-advanced assessment charge per member of the Society. However, MHADA proceeds with on-site works before the problem of residents unwilling to pay assessment charges inside the area of a Society is solved. Thus, water taps are installed, but remain unconnected by BMC. Street lights, as another example, are often not cleared by BMC, as the BEST Department demands 2m wide roads, which are difficult to find in the dense slums of Bombay.

Under SIP, the BMC Departments could not cope with the requirements for maintenance and repair in Bombay slums. The SUP might give some relief in respect of maintenance inside the Societies' areas and create a more efficient revenue collection, but drastic improvement of maintenance performance might not be expected. Moreover, BMC will remain responsible for off-site infrastructure maintenance. The financial and managerial capacity of BMC is not expected to improve drastically. Thus, equal-privies are likely to remain overflowing due to delayed repairs and de-sludging, repair of sewerage or water mains are delayed, and maintenance of drainage works remain troublesome. This implies

that although a Society might execute proper maintenance, the convenience of the provided amenities will remain, depending on the poor maintenance performance of BMC.

The BMC does not consider it as their task to monitor, support or enforce the Societies to do proper maintenance, although the lack of maintenance will affect other adjacent areas. Leakages will reduce water pressure, blocked drainage will cause flooding, filthy sanitation blocks will cause health problems in a wider area, non-swept pavements will attract insects, stink etc.

4.5 Conclusions: Bombay Slum Upgrading Programme

1. The success of SUP will be determined by the extent to which the project can satisfy the prior interest of the slum dwellers: re-development, re-construction or housing improvement. This interest has been facilitated by the provision of tenure under the SUP. However, the SUP components and Housing Improvement Loan provision do not provide sufficiently for plot realignment and affordable credit facilities. In this sense, the SUP has to compete with the Prime Minister's Grant Project, which also functions under the roof of MHADA. The relaxation of eligibility for Housing Improvement Loans might prove a significant improvement.
2. The provision of infrastructure is only of secondary importance to the beneficiaries, as most slums already possess rudimentary infrastructure. Willingness to pay for installation costs and maintenance costs of amenities will therefore depend on the 'added value' of SUP, compared to the earlier provided infrastructure under the Slum Improvement Programme of BMC. The presented case-studies reveal that in half of these cases the 'added value' is doubtful or negligible.
3. Cooperative Society land has a clear geographical and jurisdictional demarcation. However, social demarcation is only notional. Societies are often part of larger slum areas. This implies that it is very difficult to exclude non-members (from neighbouring areas, non-eligible residents and non-willing eligible residents) from using society facilities such as public tap stands and public latrines, and it is even more difficult to charge them. This phenomenon might hamper cost-recovery and frustrate efforts to maintain the amenities.
4. The requirement of all Society members to clear their dues before signing the Agreement of Lease proves to be very difficult to fulfil, thus holding up the progress of the transfer of tenure and property rights to the slum dwellers. In the mean time the Society has no legal means to avoid encroachments and to evict new settlers.
5. The role of women, as major beneficiaries of infrastructure, has been very marginal till present. Women have the highest interest in the sustenance of infrastructure, and their collaboration has largely been ignored in the decision-making process.
6. Due to regular issuing of Government Resolutions and concessions of politicians in

the forthcoming year, the Cooperative Societies tend to deliberately stall for time, in the fond hope of more concessions from Government for direct individual grant of lease.

7. The Cooperative Societies correctly consider themselves as buyers and the MHADA/BMC as the suppliers. However, the latter have a top-down, donor attitude. The implementing agencies lack a client-oriented attitude.
8. The organizational set-up of this project is complex with the involvement of MHADA, BMRDA, BMC and is further confusing due to similar SUP-programmes of BMC and the Prime Minister's Grant Project. It provides long decision making procedures, troublesome coordination, delays in implementation and confusing communication channels for the slum dwellers.
9. As a result of this, off-site works by BMC, such as providing water connections to the water mains and providing sewer line connections or repairs, do not run parallel, leaving the provided infrastructure non-operational.
10. The perceived role of the Community Development Wing in enhancing the development of the slums has been rather limited. Its role has been more supportive to the engineering and architectural section. This situation will hamper sustained community development and maintenance of provided amenities.
11. Technical staff in MHADA and BMC are not familiar with the community participatory approach of SUP. Most staff perceive their task in an engineering and architectural manner, that does not require any understanding of community participation.
12. The standards for providing infrastructure (fixed Bills of Quantities) to societies have been applied in a rigid and fragmented manner. Flexibility in respect of site-specific conditions or needs does not exist. It can be observed that in quite a number of slums the environmental problems remain the same. The SUP did fail to approach the environmental problems of slum areas in an integrated manner, and to find solutions in a creative way. The described case study of Ameer Baug may serve as an example.
13. A serious omission in SUP is the adequate provision of waste disposal and collection, and proper area drainage. In several areas one can observe the waste piles and overflowing drains at the edge of the areas. An integrated approach is required here.
14. The performance of the Cooperative Societies in maintaining infrastructure directly affects the level of infrastructure services to adjacent areas. Therefore it is in the interest of the Municipal Corporation to ensure proper maintenance inside the societies' areas. BMC or MHADA have not taken up any action that supports, stimulates or will enforce the Cooperative Societies to maintain the provided

infrastructure. There is little interest among MHADA and BMC to enhance proper preventive and corrective maintenance by the Cooperative Societies.

15. Repayment amounts for infrastructure installation are not related to the actual investment costs per settlement. They are related to location (city, suburb or extended suburb) and plot size. This cost-benefit balance is being questioned in some areas.
16. The stakes of this new and challenging SUP-concept are high. However there is an increasing lack of dedication and conviction on the part of implementing officials. The promotion of the concept lacks the incorporation of information campaigns, publications, seminars, etc. Thus the risk of failure of the project in the long run is increased.

CHAPTER – V

SLUM IMPROVEMENT PROJECT – VISHAKHAPATNAM

5.1 Project description

a. Background of the Project

The O.D.A. assisted project in Vishakhapatnam cannot be understood without providing some basic background of the experiences gained in the slum improvement projects in Hyderabad and Secunderabad. Here, the O.D.A. has been involved since 1983, but the history of slum improvement goes back to the late sixties. In those days the Municipal Corporation could not rely on the support of outside agencies, such as the O.D.A.

Slum Improvement meant in those years an active interaction between community organizers of the Urban Development Department and the slum dwellers to identify and tackle the most urgent problems. The slum dwellers had to raise funds and the corporation would provide matching grants of approximately 50%, e.g. to construct a community hall, drains and pavement. Assistance was given during the implementation of the works that were often on the basis of self-help. Thus, communities were involved right from the beginning. Owing to the sense of belonging, the amenities have been well maintained and are still operational today. Housing was not covered in the sixties. In the early seventies housing was imparted in the programmes, as well as the provision of “pattahs” (lease). The Andhra Pradesh State Government and the Hyderabad Municipal Corporation provided housing loans and basic amenities. By the end of the late seventies the Housing and Urban Development Corporation (HUDCO) became involved through the provision of housing loans, administered by the Municipal Corporation. Moreover UNICEF was involved through the provision of funds for mother and child programmes and sanitation. Owing to the increasing funds for the projects, the concept of matching grant and assistance by the U.C.D. was given up gradually and amenities were provided without any financial or in-kind contribution from the beneficiaries. The provision of amenities became a right in the eyes of the beneficiaries, without any obligation to an own contribution. Not only the right of provision, but also the right of maintenance by the Municipal Corporation became common thinking among slum dwellers. The concept of a sense of belonging, self-help and independence was lost to a great extent.

In 1983, the Overseas Development Administration (U.K.) commenced to fund the Slum Improvement Programme Phase II of the U.C.D. Hyderabad by supporting socio-economic programmes and the provision of basic civic infrastructure. Housing loans were provided by HUDCO. Thus, an integrated programme could benefit the slum dwellers of Hyderabad and Secunderabad. Substantial experience was gained in community involvement, planning and implementation. The programme is geographically divided into 3 zones, two in Hyderabad (Old and New) and one in Secunderabad. In total, the programme covers 665 slums. Each Zone is managed by a Project Officer. In total 8 Community Organizers and 80 Social Workers are with the

U.C.D. Proper maintenance remained however very poor and today plans have been developed to revive the concepts of matching grants to restore the sense of belonging among the beneficiaries to the provided facilities.

The Hyderabad experience determined to a large extent the outline of the Slum Improvement Programme in Vishakhapatnam. Moreover, staff that worked with the Hyderabad U.C.D. was transferred to Vishakhapatnam in 1988 when the project was started.

The coastal city of Vishakhapatnam has experienced rapid industrialization in the last 3 decades. Companies like Hindustan Shipyard, Hindustan Petroleum Corporation Ltd., Hindustan Zinc Ltd., Coromandal Fertilizers Ltd., Andhra Steel Corporation, Hindustan Polymers, Bharat Heavy Plates & Vessels, but also the Vishakhapatnam Steel Project, the Indian Navy and the Vishakhapatnam Port Trust have invested thousands of crores of rupees in the city. This industrial development has triggered off massive rural-urban migration that is one of the highest in the country, which resulted in population growth of more than 6.5% per annum. The present population is estimated to be over 800,000 inhabitants, being an increase of 32% compared to the 1981 population of 590,000.

The influx of rural migrants looking for work has created a large number of slums. Slums with no sanitation facilities, no safe water supplies and thus creating high health risks for its dwellers. Diseases such as gastroenteritis, skin diseases and respiratory infection are quite common. The slum population is approximately 200,000 inhabitants, i.e. more than 25% of the total population. A study by the Urban Community Development Department in 1985 and 1986 on the growth of the slums, revealed that the rate of growth in slum population has been of the order of 6.4% per annum over the last decade. In the same survey 170 slums were identified. Of the total, 110 slums are located on public land, 37 slums on private land and 23 slums do have individual ownership. Of late there seems to be some decline on private land and 23 slums do have individual ownership. Of late there seems to be some decline on account of a lower rate of rural-urban migration which can be explained by the lack of land for encroachment, high cost of living and fewer job opportunities. However, if one assumes an annual growth rate of slum population of 5% the slum population will grow every year by some 10,000 people.

Since the mid-seventies, the Municipal Corporation has been taking up programmes for the improvement of slums. In 1974 the Environment Improvement Scheme was launched with grants from the State Government. The scheme provided basic civic amenities. In total, some 80 slums have benefited from this scheme. However, since the grant constituted only Rs.250/- per capita the impact has not been substantial. Since 1979 the Weaker Section Housing Programme has been implemented with loans provided by HUDCO and commercial banks. Under this scheme loans have been provided for some 7,400 households.

In 1979 the Urban Community Development Project (UCD) was started with assistance from UNICEF. The project was confined to a limited number of slums, but was

extended to the entire city in 1981. In 1985 the Urban Basic Services Programme was started for a period of 3 years under the UCD Project. The Project covered a wide range of activities: provision of critical minimum civic amenities, improving community awareness, strengthening local organizations, developing and training leadership, coordination of welfare programmes at neighbourhood level, self-help housing programmes and provision of skill training in order to generate income. For this purpose the concept of forming Neighbourhood Committees was introduced. They constituted the main agent in community development activities. Another important programme that has benefited the slum dwellers is the "Childhood Disability Project" which was implemented in 1984 with the assistance from UNICEF. It aimed at prevention, early detection and rehabilitation of disabled children. Immunization, education and mother and child counselling were part of the project.

In 1985-86, a Universal Immunization Programme was launched reaching approximately 85% of the children. In 1988-89 another Immunization Programme had been started.

b. Project description

Against this background and with the experience gained in Hyderabad, a Slum Upgradation Project was launched in 1988. The project aims to cover 170 selected slums in Vishakhapatnam. The slums have been identified by the survey conducted by the UCD in December 1985 and April 1986. The selected slums have existed for more than 15 years, while the status of existing civic infrastructure and the existence of development plans have been included in the selection procedure of slums. The survey showed that of the selected slums, 110 slums are located on government or municipal land, 37 slums on private land and 23 slums have individual ownerships. The 170 slums are inhabited by 37,000 households, with about 190,000 residents.

The project has 3 phases: 1988-89, 89-90 and 90-91. In the first phase the most vulnerable slums will be taken up under the SUP. The project is meant to provide basic civic infrastructure and essential socio-economic inputs in the slums in an integrated manner. The approach to be adopted is one of Urban Community Development based on the Neighbourhood concept with active community participation at different stages of planning and implementation. The main objectives are described as:

1. increase the supply of serviced land in the selected slums so as to provide more opportunities for affordable low income shelter;
2. convert a significant proportion of squatter settlements into environmentally acceptable and legal shelters by providing land tenure, infrastructure improvements wherever necessary and shelter improvement loans;
3. provide basic minimum civic amenities by way of adequate dust-proof approach roads, internal roads and pavements, storm water and sullage drains, street lighting, safe and potable drinking water, etc.;

4. improve the socio-economic and health conditions of the slum dwellers by providing pre-school education, a package of integrated health services covering supplemental nutrition, universal immunization, health education and other aspects of primary health care, strengthening maternity and child welfare centres, providing for referral services, civic education, malaria control, etc. to all the slum population;
5. provide low cost sanitation as far as possible to all the families living in slums and gradually eliminate community latrines. It is proposed to provide to the poor and the needy, loan facilities for construction of low-cost pour-flush latrines with on-site disposal;
6. help the Municipal Corporation to acquire adequate plant equipments to provide necessary municipal services with particular reference to solid waste management in respect of all the city slum areas;
7. develop community participation and cohesiveness in sustaining the infrastructure created through both physical and socio-economic programmes and train the population more particularly women and youth, in the proper use and maintenance of this infrastructure;
8. take steps to increase community awareness to have a better understanding of the problems faced by slum dwellers and develop a problem solving approach with the indigenous organization, self-help and mutual aid. Develop local initiative through educative programmes, identify and train local leaders who will act as the 'contact' persons in the community;
9. converge all the services as far as possible rendered by the State Government Departments, Municipal Corporation, Voluntary and Non-Governmental Organizations;
10. provide technical assistance for improving the capacity of the implementing bodies particularly the Municipal Corporation in respect of plan, implementation and administration of various projects and programmes with adequate emphasis on monitoring, reviewing and evaluation techniques; and
11. impart training in primary health care coverage of the community, particularly for the children and women, family welfare, adoption of appropriate technology, improvement of skills for self-employment, providing income generation schemes particularly for women, etc.

The housing component is covered by a Rs.1,000/- subsidy under the Economic Weaker Section Programmes of the State Government, by Rs.10,700 under HUDCO loan arrangement and by a Rs.300/- contribution from the beneficiaries. Another Rs.251/- has to be paid by the beneficiaries for the administrative cost of technical support. In respect of installing adequate sanitation facilities, HUDCO provides a loan of Rs.1,500/- under the Basic Sanitation Scheme to each household that constructs a pour-flush, double-pit latrine.

An important component of the project is to improve the capacity of the Municipal Corporation and the community to undertake the effective maintenance of the infrastructure to be created. It has been proposed under the project, to provide training and supply machinery and equipment to Slum Committees or Neighbourhood Committees for maintenance of infrastructure. It has been thought of to train community youth in handpump caretaking, water pipeline repairs and street lighting repair programmes. The trained personnel will be paid from a fund created by the Neighbourhood Committee at prescribed rates. The principle is that community assets like community halls, community latrines and other infrastructure will be maintained by the community.

The Neighbourhood Committees will be registered as a Society under the Cooperative Societies Act, in order to provide a legal base for payments and transactions.

A Declaration (See Annex I) has been prepared to be signed by the Neighbourhood Committees that provides jurisdiction to the registered Society to fulfil a number of duties:

1. Road Maintenance: prevention of unauthorized road cuttings and repairing the unauthorized road cuttings within the slum area.
2. Storm water drains: preventing blockages and clearing by way of silt removal from the drains every day. Repairs to the damaged storm water drains caused by natural disturbances and vehicular traffic.
3. Water supply: replacement of defective or stolen bib-cocks, repairs to suction pumps of bore wells, repairs to the domestic feeder lines.
4. Sanitation: small repairs to the structure, repairs to the pan, removal of major blockages, etc.
5. Street lighting: preventing theft or breakage of light poles inside slums and reporting to the Electricity Department about non-functioning of the street lights.
6. Community Hall: daily cleaning of halls and toilets, annual white-wash and patch work, payment of electricity bills, water charges, repairs to electricity metres, repairs to doors, roof leakages, ventilators, etc.
7. Health Programmes: maintenance of the building of primary health care centre, motivation of the mothers of new born children protected and educating them in family planning practices.
8. Balwadis and Non-formal Adult Education Centres: to ensure participation of all the children in the Balwadis (Creches) and admit children compulsorily in the schools after they have attained the age of 6 years.

The Declaration is signed by the President and Secretary of the registered Society. It constitutes an obligation of the Neighbourhood Committee towards the community to fulfil these tasks.

5.2 Organization of the Research

Basic aggregated socio-economic data on the slums covered by the SIP is available of every notified slum in Vishakhapatnam. More detailed data is available on 10 settlements that have been covered by the Baseline and Evaluation Survey conducted for the UCD by the Institute for Development and Planning Studies in Vishakhapatnam.

By applying the criteria for settlement selection (Chapter 3), some 5 slums were identified that complied with at least three of the selection criteria. These are:

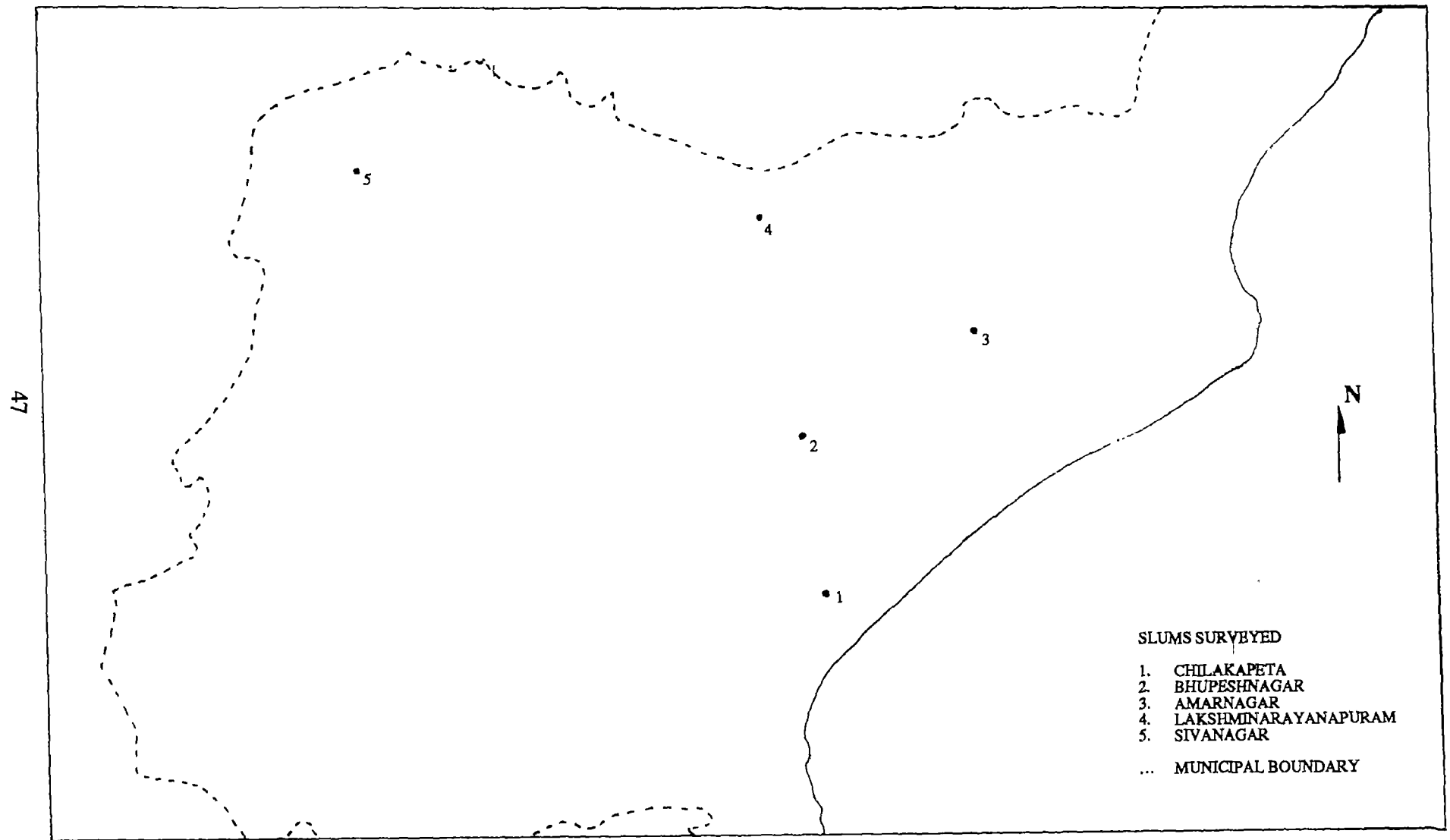
1. Chilakapeta
2. Bupeshnagar
3. Amarnagar
4. Lakshminarayanapuram
5. Sivanagar

It was decided to cover the 5 identified slums with a sample of approximately 20-30 per cent of the total number of households. This resulted in a total of 240 questionnaires. Through the assistance of Dr. V.V. Ramana of the Institute for Development and Planning Studies, Vishakhapatnam, the household questionnaires were canvassed. The questionnaire for Vishakhapatnam is given in Annex II.

Interviews with the community leaders and other resource persons affiliated with Neighbourhood Committee were conducted in all 5 settlements.

Interviews with resource persons from (public) agencies and institutions that are involved at present in the management have also been undertaken. Officials from the U.C.D. and other M.C.V. departments have been interviewed. Other officials from the SIP in Hyderabad have also been approached and interviewed. The interviews were of an open type with a number of standard topics and questions, as described in chapter 3.

FIGURE 5.1
LOCATION OF 5 RESEARCH SETTLEMENTS IN VISHAKHAPATNAM



5.3 Research: 5 Settlements

In the case of Vishakhapatnam, the actual processing of the available quantitative and qualitative data also showed that analysis at settlement level did not prove justified, so as to obtain a better insight into and understanding of the potential of community-based management. Thus, it has been decided to present the findings in an aggregated manner. Where site-specific circumstances prove more explanatory, they will be elaborated.

The results of the household questionnaires have been presented in a Summary Data Sheet for each slum. The Summary Data Sheets are given in Annex III. More detailed reports of each studied slum settlements are given in Annex IV.

Table 5.1 presents basic socio-economic data of each studied slum in Vishakhapatnam.

TABLE 5.1
GENERAL DATA: 5 SAMPLED SLUMS

Slum Names:	1 Chilakapeta	2 Bupeshnagar	3 Amar-nagar	4 Lakshminarayanapuram	5 Sivannagar
No. of huts	451	181	205	121	79
Total population ('86 figures)	2346	672	940	560	353
Density of popul. per acre	720	480	577	800	100
Sample size (%)	19	22	29	26	30
Household size	4.1	3.2	4.5	4.0	3.3
Illiteracy (%)	29	43	43	48	45
Primary/Secondary school (%)	53	31	40	38	46
No. of persons empl. per household	1.5	1.4	2.0	1.3	1.9
Aver. stated income in Rs.	988	673	947	798	933
Income/Expenditure Categories:					
< 700 Rs.	24	65	22	53	29
701-1500 Rs.	65	35	73	47	29
1501-2500 Rs.	10	0	5	0	4
> 2500 Rs.	1	0	0	0	0

Housing Situation (Table 5.2)

None of the slum has been established recently. Most dwellers (87-100%) have lived in the studied slums for over 10 years. Before the start of SIP most of the slums showed an established and often regular lay-out. However, the consolidation of huts showed large differences. Within each slum, hutments could be found built of a range of semi-permanent and temporary materials. Walls made of wood, mud blocks or bricks, thatched roofs or roofs with corrugated iron and floors finished with mud were quite common. In Chilakapeta dwellings of a more permanent character could be found as the result of an earlier Economic Weaker Section Housing Scheme. Domestic electricity supply was not common, except for the more consolidated pockets of Chilakapeta.

From the household survey and the interviews with local resource persons it was found that housing is the main focus of residents. Provision of tenure lease and access to HUDCO's housing loans constitutes a major incentive for people to get involved in SIP and slum upgrading. As shown in Table 5.2 three slums were in process of transformation from a slum settlement into a regulated and consolidated housing area with solid brick and concrete dwellings. On top of the HUDCO loan, the interviews revealed that some households were investing Rs.10,000-20,000 from their own resources. The project staff has stimulated to make women holders of tenure-lease and, it is said, that in Lakshminarayanapuram women have indeed been made lease-holders.

Eligibility and Exclusion of non-members (Table 5.2)

Eligibility of residents for SIP comprises of three elements:

1. Eligibility for civic infrastructure works and socio-economic programmes is obtained when the demarcated slum area has been notified and has been appointed as most vulnerable slum to be covered in the first phase upgradation.
2. Eligibility for housing loans from HUDCO and subsidies from the State under the Economic Weaker Section Programmes is obtained when official registration can be provided by the dweller.
3. Eligibility for loans from HUDCO under the Basic Sanitation Schemes can be obtained when official registration can be provided by the dweller.

The demarcation of the slum areas has been done in such a manner that the identified slums, by and large, constitute a social and geographical entity. In this manner exclusion of residents by the first eligibility criterion has been avoided. Moreover, all slum dwellers will in the long run benefit from SIP, as the project will cover all 170 notified slum areas in Vishakhapatnam. In contrast to Bombay, problems of exclusion of residents due to project eligibility criteria has not been identified.

TABLE 5.2
COMMUNITY FEATURES IN VISHAKHAPATNAM

Slum Names:	1 Chilakapeta	2 Bupeshnagar	3 Amar-nagar	4 Lakshminarayapuram	5 Sivannagar
General data:					
Part of larger slums:	yes	yes	yes	yes	yes
Signed Declaration:	yes	yes	yes	yes	no
Housing situation: ¹	perm./ semi- perm.	semi- perm./ temp.	semi- perm./ temp.	semi- perm./ temp.	semi- perm./ temp.
Housing under SIP:	no	no	yes	yes	yes
Socio-econ. program:	yes	yes	yes	yes	yes
Remaining environ. problems: ²	SWC SAN dens.	DRAI	---	---	---
Community:					
Comm. organizations before SIP:	6-8	1	2	3	2
Social cohesion: ³	low	mod.	mod.	high	high
Problems exclusion residents outside area:	yes	yes	yes	no	no
Role leaders in NC: ⁴	low	low	mod.	pos.	pos.
Legend:	1. perm. = permanent; semi-perm. = semi-permanent; temp. = temporary 2. SWC = Solid Waste Collection; DRAI = Drainage; dens. = density 3. mod. = moderate 4. mod. = moderate; pos. = possible				

The project has decided to make a number of slum areas eligible for housing loans and subsidies. In our research settlements Chilakapeta has been excluded as an earlier EWS programme has benefited the area. Bupeshnagar has also excluded as it is located in a low-lying and marshy area, not suitable for construction of ground-plus-one dwelling. The three other slum areas have been selected for housing improvement. Here, no cases were identified where residents had to be excluded for not fulfilling the requirements for eligibility.

However, one has to acknowledge that the process of slum encroachment and squatting of open land will continue. In the scope and planning of the project, such developments

pay for maintenance is only feasible when exclusive use by the residents inside the demarcated slum area, under the jurisdiction of the Neighbourhood Committee, is achieved. This situation is lacking in Chilakapeta, Bupeshnagar and, to a lesser extent, in Amarnagar. The said slum areas are in the first phase of the project and the provided water supply and sanitation amenities may be used by other slum dwellers of adjacent areas as long as no improvements are made in their neighbourhoods. It is expected that this unfavourable situation is temporary. The situation in Lakshminarayanapuram and Sivanagar is more favourable due to the geographical seclusion and distance to other areas.

However, one has to acknowledge that the process of slum encroachment and squatting of open land will continue. In the scope and planning of the project, such developments have not been anticipated or included. The conclusion might be that in spite of achieving slum upgradation for all slums in Vishakhapatnam, continued urbanization will create dangers to community-based management.

Level of organization and social cohesion (Table 5.2)

A major factor for success of community-based management of infrastructure is the level of organization and social cohesion. Except for Bupeshnagar, all slums had some kind of community-based organization before the start of SIP. They seemed to play a role in political, social, cultural, as well as religious activities. In Chilakapeta these organizations have been affiliated with political parties. In this large slum area several competitive groups or factions of residents exist. In Amarnagar, Lakshminarayanapuram and Sivanagar community-based organizations are affiliated with scheduled caste organizations. here, division or competition between sub-groups could not be observed. In Sivanagar, the community-based organizations seemed to be most active and effective. At the other end, the level of organization in Bupeshnagar has been observed as being low. One organization, the Mahatma Gandhi Youth Organization, did not seem very active.

Social cohesion is difficult to assess and one has to refer to reactions during household questionnaires and interviews with local resource persons. Two slum areas have been observed with a relatively high social cohesion. Lakshminarayanapuram and Sivanagar. It is not by coincidence that these two slums are the smallest among the slums in Vishakhapatnam and are not part of a larger slum area. Bupeshnagar and Amarnagar have a moderate cohesion; Chilakapeta has, by its size and by its many competing factions, the lowest collective social cohesion.

Role of leadership and Neighbourhood Committee (Table 5.2)

In the literature (Yeu-man Yeung) leadership has been assessed as one of the key-factors for community-based resource mobilization. When leadership is coupled with the establishment of a Neighbourhood Committee, the Committee can play an important role in the task of community-based management of the provided infrastructure. The first activity of project staff in a slum was to establish a Neighbourhood Committee that

would become the platform for socio-economic programmes. Very often this would be a women's group (Mahila Mandal).

The establishment and registration of a Neighbourhood Committee had a positive effect in Bupeshnagar on the level of organization of mainly women. In that manner other social problems related to alcoholism and prostitution could be dealt with. In Chilakapeta the establishment of a NC had a negative effect, as the status of the existing Mahila Mandals (Women's Groups) was disputed by other (political) organizations. The socio-economic efforts, thus, benefited only certain factions within the community. In Amarnagar and Sivanagar the integration of a Neighbourhood Committee in the existing organization was most smoothly achieved. Here, Mahila Mandals were also taken as a platform to start off the work of a Neighbourhood Committee, while male organizations and male leaders have been involved and consulted in major decision-making. In Lakshminaryanapuram the situation is somewhat extraordinary. Women in this community have a dominant role. The establishment of a Neighbourhood Committee has contributed to a struggle for leadership and to regular changes in committee members and chair-women. In general, one can observe that taking Mahila Mandals as platform for neighbourhood socio-economic programmes during the execution of the project, proves effective. Their role should be sustained and strengthened for the management of on-site civic infrastructure, especially for enhancing household duties, social control and self-reliant maintenance activities, like sweeping, cleaning and collection of waste. However, researchers consider a stronger involvement of male organizations and leaders desirable in respect of collecting maintenance contributions from households and establishing maintenance routines by employing labourers or mechanics.

Strengthening of leadership in the Neighbourhood Committee would provide an impetus to Mahila Mandals to sustain their gained role in the community. Especially training in communication and decision making techniques would be beneficial the outcome of the project in the long run. Such training would be particularly beneficiary to the Neighbourhood Committees of Chilakapeta, Bupeshnagar and to a lesser extent, in Amarnagar.

Community response to SIP

At the time of the research the response to the SIP has been positive in the three slums. These slums have also been selected for housing upgrading: Amarnagar, Lakshminaryanapuram and Sivanagar. Especially at household level the response has been high, as most residents invested considerable amount of money in not only housing, but also in sanitation by means of acquiring loans and raising own funds. In Bupeshnagar the response has been moderate. Weak community organizations, social instability and non-eligibility for housing have contributed to this. In Chilakapeta the response has been assessed as low. This is due to political factions, competing organizations and non-eligibility for housing improvement have contributed.

Among other factors, eligibility for housing proves to be a major incentive for households to participate in SIP.

Infrastructure situation (Table 5.3)

All slum areas had some kind of infrastructure before SIP. One could find a water supply point, handpump or well. Very often an access road had been constructed. In several places individual households had constructed patches of pavement and small gutters. Sanitation facilities were lacking. Open air defecation was a common practice among the residents. Retaining walls for larger drains (geddas) in Bupeshnagar, Lakshminaryanapuram and Sivanagar were also lacking. In the rainy season, this situation caused considerable environmental pollution and erosion.

TABLE 5.3
INFRASTRUCTURE SITUATION AND COMMUNITY-BASED MANAGEMENT

Slum Names:	1 Chilakapeta	2 Bupeshnagar	3 Amar-nagar	4 Lakshminaryanapuram	5 Sivanagar
Infrastructure:					
Pavements:	440m ²	800m ²	1000m ²	455m ²	1516m ²
Drains:	400m	280m	600m	360m	750m
Public Water taps:	2	2	2	2	1
Sanitation: ¹	CL	CL	IPFL	IPFL	IPFL
Community building:	1	—	1	1	1
Retaining wall:	—	175m	—	147m	836m
Infrastructure investment per hut incl. major works in Rs. (as estim.):	953	2,669	3,224	4,227	18,570
Environm. impact SIP: ²	low	reas.	cons.	cons.	cons.
Additional comm. effort:	—	—	yes	yes	yes
Dissatisfaction: ³	WS SAN	WS	WS SWC	WS SWC	—
Present maintenance practices:	—	—	yes	—	—
Conclusion:					
Expected community-based management: ⁴	no	poss.	poss.	poss.	yes

- Legend: 1. CL = Community Latrine (20 seats); IPFL = Individual Pour-Flesh Latrine with two pits.
 2. reas. = reasonable; cons. = considerable
 3. WS = Water Supply; SAN = Sanitation; SWC = Solid Waste Collection;
 4. poss. = possible

Under SIP a number of infrastructure provisions have been made. Paths and roads were paved with concrete or bitumen. Road-side drains have been provided. In Bupeshnagar, Lakshminaryanapuram and Sivanagar large drains have been controlled by the construction retaining walls. Public latrines with 20 seats have been provided in Chilakapeta and Bupeshnagar, while other slums opted for individual pour-flush double-pit latrines. Two public water taps have been provided in each slum, except for Sivanagar where one handpump has been provided. Except for Bupeshnagar, a community building has been constructed in each slum.

Environmental situation after SIP works (Table 5.3)

Improvement of the environmental situation is the main objective of SIP. Where considerable improvement has not been accomplished, the creditability of the SIP concept and the willingness of people to manage on-site infrastructure is seriously effected. The researchers have made an assessment of the environmental impact of SIP, based on the alleviation of present environmental problems and improvement of living conditions. In line with the investment per hut the environmental impact of SIP has been considerable in Sivanagar, Amarnagar and Lakshminaryanapuram. In Bupeshnagar the impact has been reasonable. In these four settlements the project has achieved its goal of alleviating environmental problems in slums to a considerable extent. In Chilakapeta this has not been the case. The rationale of making large investments in smaller settlements such as Sivanagar and Lakshminaryanapuram and smaller investments in larger slums such as Chilakapeta and Bupeshnagar is not clear. One obvious reason is that housing construction in the said settlements require complementary infrastructure, such as pavements and road-side drainage. However in respect of size, community needs and the environmental vulnerable situation in Chilakapeta and Bupeshnagar, larger investments would have been justified. An additional problem in Chilakapeta is the home-based fish processing activities. The waste that is generated by these home-based activities, attracts many insects and animals and poses a serious health risk to the residents. In combination with the high density and insufficient collection of waste, the environmental situation remains unacceptable. In view of this situation the investment allocation proves to be in contradiction with the environmental need for improvements.

Appreciation of the SUP (Table 5.3)

The appreciation of the SUP is strongly related to the environmental impact of SIP in the studied slums. In Sivanagar and Lakshminaryanapuram residents are satisfied. In Bupeshnagar and Amarnagar the appreciation is moderate, while in Chilakapeta the appreciation by the residents was low. Where piped water supply was provided residents complained about the irregular supply, lack of pressure and too few connections. In Amarnagar and Bupeshnagar the water pressure and hours of supply would improve by the installation of an overhead-tank and electric pumps for the installed borewells. In Chilakapeta no improvement was expected. However, the provision of only 2 tapstands in Chilakapeta, Bupeshnagar and Amarnagar is

insufficient to reach any acceptable service standard. In Lakshminaryanapuram and Sivanagar the water supply situation has been acceptable. In respect of sanitation the residents of Chilakapeta stated that the number of seats is far too low. The researchers share this opinion. In general, more priority should have been given to water supply and sanitation facilities which remain insufficient in almost all slum areas.

Solid waste collection did constitute a serious problem in Chilakapeta and Lakshminaryanapuram and residents expressed their discontentment during the household questionnaires.

Infrastructure management and the Cooperative Society (Table 5.3)

To get an indication for the possible establishment of maintenance routines by the community and the Cooperative Society, it is important to know whether residents are aware of the future tasks of the Neighbourhood Committee in respect of infrastructure maintenance (See Annex I). From the household survey it was found that residents, in general, are only moderately aware of these tasks. Residents in Sivanagar and Lakshminaryanapuram are most well informed about the duties of the NC, while in Chilakapeta residents have little knowledge about the existence of a NC or its responsibilities. When asked in more detail, sweeping is considered a community responsibility, but many stated that repair of tapfloors, handpumps and pavements remain a responsibility of the Municipality.

Another indicator is whether maintenance routines already exist or have been established. The survey revealed that actual maintenance practices only exist in Amarnagar, where money is collected on a monthly basis. In all other settlements no maintenance routines have been established. At the time of the research, little priority was given to these future tasks by the communities, neither was money collected to establish a repair and maintenance fund. Members of the NC stated that they see no purpose for it as yet. However, it is of utmost importance to initiate maintenance routines right from the start as to prevent early damage and dilapidation. Especially sanitation and drainage are rather sensitive to delayed maintenance, causing nuisance and encouraging misuse.

On the basis of the above indicators the researchers have made an assessment of the likelihood that community-based management will be established or sustained in the studied slum areas. This assessment has been based on a number of indicators that relate to the community only. These indicators are expected to have a positive, negative and neutral effect. (See Table 5.4)

By applying these indicators, researchers have come to a prediction of the likelihood of community-based management in each settlement. In 1 settlement the researchers (Table 5.3) expect positive results. In 3 settlements community-based management is possible if the impact of SIP and overall environmental situation, the competence of leadership in NCs and the social cohesion is improved or strengthened. In Chilakapeta community-based management is unlikely as there are too many problems to overcome. A possible solution is to establish smaller social units, as is observed in the Bombay Slum Upgradation Project. Future research will have to prove whether this prediction is justified.

TABLE 5.4
INDICATORS FOR COMMUNITY-BASED MANAGEMENT
INFRASTRUCTURE: SIP VISHAKHAPATNAM

Positive	Negative	Neutral
1. Social cohesion.	1. Environmental problems after SIP.	1. Part of larger slum.
2. Eligibility for housing improvement.	2. Political or social factions.	2. Income/employment.
3. Active organizations.	3. Problems of competence of members NC.	3. Literacy level.
4. Involvement of male leaders and organizations	4. Little awareness duties NC.	4. Problems to exclude non-community members.
5. Linkage Mahila Mandals and NC.	5. Dissatisfaction with SIP.	5. Socio-economic programmes.
6. Positive environmental impact SIP.		6. Education.
7. Existing maintenance routines.		
8. Regular collection of maintenance charges.		
9. Individual sanitation.		

5.4 The role and impact of Institutions

The Urban Community Development Department (UCD) is the major implementing body within the Municipal Corporation of Vishakhapatnam. The responsibilities of the UCD are as follows:

1. the planning, engineering and execution of the civic infrastructure;
2. the planning, coordination and execution of health, education and economic programmes;
3. the coordination of the housing projects with the above mentioned programmes; and
4. the general management and administration of the SIP.

The housing project with loans and subsidies from HUDCO and the State Government involves the Vishakhapatnam Urban Development Authority (VUDA). Development plans and layouts are sanctioned by the VUDA, while the loan applications and provisions are also channelled through this office. Thus the engineers, planners and administrators of the VUDA are closely involved in the housing component of the SIP.

The UCD has three wings: an engineering and planning wing headed by two Executive Engineers, an administrative and accounting wing headed by an Administrative Officer and a community organization wing headed by the Project Officer. The overall management is with the Project Director. The organizational set-up is therefore quite simple and compact. The total number of UCD staff is 94.

The community organization wing is the sole intermediary between the project staff and the communities. They are responsible for gaining the support of communities, establishing Neighbourhood Committees, providing information and are to function as a communication channel between the residents and the implementing agencies. They are to take charge of the implementation of the health, education and economic programmes. The 11 community organizers and 26 social workers are trained as community development workers. They might have some technical knowledge, but their main field of expertise is social work.

The number of socio-economic and health programmes imparted in the SIP is impressive, and it is even more impressive that the community development wing has put great effort into its implementation. As mentioned above, the programmes comprise of:

Health:

- a. Mother Leader Training
- b. Dais (Midwife) Training
- c. Clean Hut Competition
- d. Childhood Disability Programme
- e. Health Clinics
- f. Food and Nutrition
- g. Study Tours to Hyderabad SIP

Education:

- a. Balwadi (Creche)
- b. Adult Education Centre
- c. Non-formal Education Centres
- d. Audio-visual Education
- e. Reading Room/Library

Crafts:

- a. Craft Centres
- b. Short Term Courses

Economic:

Revolving Fund for Income Generating Programmes

From the surveys it is found that women and children are the main beneficiaries of these programmes. It is, as a matter of course, that the community organizers have approached the female organizations (Mahila Mandals) to implement the programmes. The Neighbourhood Committees were consequently linked with the existing Mahila Mandals, and got registered as a Society. The NCs are to be coordinating the programmes and co-sanction the payments to teachers of Balwadis, Craft Centres, Adult Education, etc. Also the Revolving Fund is administrated by the NCs through co-sanctioning and collection of repayments. The problem of illiteracy is solved by providing assistance from the community organizers and social workers, who have to co-sanction any financial step of the NC. Support is also provided by literate residents. Moreover, the project staff has enhanced to make women holders of tenure-lease. In Lakshminaryanapuram, this unorthodox approach succeeded.

One might conclude that the community organization wing is implementing the socio-economic programmes in an impressive manner. However the staff is not so familiar with the technical and managerial issues of preventive and corrective maintenance of infrastructure, nor has it received much emphasis in their community development work. Post-project issues are not much alive among the community organizers and social workers. They are very much occupied with the impementation. It is not surprising that at household level the knowledge about the duties of the NC is by and large lacking. Also the members of NCs are not very well aware of their duties after completion of the project. The Declaration that has been signed (except for Sivanagar) is not so much a document that lives in the minds of project staff and the beneficiaries at present.

The fact that monthly collection of money for the maintenance has not materialized shows that the community did not grasp the essential issues of establishing maintenance routines, such as sweeping, cleaning, check-up, greasing, tightening, etc. Maintenance is generally conceived as taking action after something has broken. Both communities and commur. ty organizers cannot be blamed for this as they are not trained to know these essential.

The administrative support that is given by the community organizers to the NCs will most probably terminate when the implementation of works and programmes are completed. In spite of UCD's conviction that support will be made available to NCs after completion, the amount of work that is outstanding will not allow community organizers to visit completed slums on a regular basis. This implies that support and strengthening of maintenance practices will not materialize, and will be left to the communities to manage. As the emphasis upon establishing maintenance practices is very low at present, one cannot expect any miracles from the communities.

The standards that exist for providing infrastructure are applied in a relaxed manner as one can see from the difference in provided infrastructure in the 5 sampled slums. In Chilakapeta minimum civic infrastructure is provided, worth Rs.953 per hut, while in Sivanagar major infrastructure works have been taken up, worth Rs.18,570 per hut. The existing differences cannot be fully explained by the mentioned criteria of urgency of improvements, level of existing infrastructure and vulnerability.

The planning and engineering wing would be knowledgeable about the required measures and routines of preventive and corrective maintenance of provided civic infrastructure, as they are trained in these technical issues. However, their main work is focussing upon the implementation of the works, lay-outs, construction and supervision of the contractors. This of course involves a lot of work. The community organizers function as a feedback to their proposals, designs and lay-outs. When the community agrees with the proposals the implementation can start by tendering the contract. Our observation is that post-project issues are not so much a concern of the planners and engineers of the UCD. Ideas and plans that exist for proper maintenance did not reach the minds of community organizers or the communities. It is considered as an issue to be taken up at a later stage of the project, spare parts will be kept at the UCD office for repairs. For this purpose, it is proposed to designate temporarily technicians to the UCD from the other MC departments.

The responsibility of major maintenance of the infrastructure after the project will reside with the departments of the Municipal Corporation for Water Supply, Health, Drainage & Street Lighting and Roads, Storm Water Drains and Civil Works (bridges, culverts, etc.). In respect of the works under SIP these departments are marginally involved. The UCD functions like an in-house Development Authority that will transfer the capital works to these departments for maintenance and repair. The MC departments will then be dealing with the Neighbourhood Committees that have taken up the duties of maintenance and minor repairs. It is not felt to be their responsibility to monitor and stimulate the performance of these NCs. It is considered the responsibility of the UCD, i.e. community workers and social workers to support the NC in doing maintenance, which is, as said, not expected to materialize. The dedication and conviction that exists in the UCD departments towards the SIP approach is lacking in the other MC departments. One might even observe skepticism.

The day-to-day management of the SIP resides with the Project Director who frequently consults with project staff (executive engineers, planners, administrative officer and the

project officer) and the City Municipal Commissioner. The major decision-making is done along these lines. There is a Project Coordination Committee that meets every other month. The Coordination Committee constitutes of the Municipal Commissioner, the Project Director, the Executive Engineers of other Municipal Departments, the Municipal Health Inspector and other Municipal Officers. The Coordination Committee functions as an advisory and facilitating body for issues that require decision-making at a city level. The overall progress of the project is discussed and changes are proposed, if necessary. Consequently, the members' cooperation is sought for the necessary measures and sanctions. The Committee also sanctions budget re-allocations that are proposed by the Project Director and the Commissioner.

5.5 Conclusions: Vishakhapatnam Slum Improvement Project (VSIP)

Referring to the above observations and findings, the following conclusions can be drawn for the Vishakhapatnam Slum Improvement Project:

1. A great achievement of the Vishakhapatnam Slum Improvement Project is the integrated effort of housing, basic infrastructure provision and socio-economic and health programmes for a large number of slums.
2. The second achievement of the VSIP is the fact that all three components are coordinated and/or implemented by the Urban Community Development Department of the Municipal Corporation. This provides simple decision-making procedures, swift implementation and simple communication channels for the slum dwellers.
3. Slums that have been excluded from housing improvement subsidies and loans feel little incentive to get involved in SIP, let alone community-based maintenance.
4. In those slums that have been selected for housing improvement, the slum dwellers are very pre-occupied with the housing-cum-tenure component of SIP. The provision of infrastructure is of secondary importance to the beneficiaries.
5. The provision of tenure-lease to women is conceived as positive both for the general development of the slum area, as well as to enhance community-based maintenance routines.
6. The distribution of investments among the different slums has little bearing with the actual community needs and environmental problems. Moreover it seems that smaller slums receive considerably more than larger slums.
7. The households are little aware of their responsibilities towards management of the infrastructure. The Neighbourhood Committees are to a limited extent knowledgeable about their post-project responsibility.
8. The signed Declaration only reaches its goal as a reference and legal document that obliges the NC to fulfil a number of tasks. However, the Municipal Corporation is not committed by this document to fulfil their specified duties, nor to support, stimulate or enforce the NC's, as no municipal officer has countersigned the Declaration.
9. The UCD community organization wing is very pre-occupied with the implementation of the broad socio-economic and health programmes which to a large extent benefit the women and children of the SIP areas. The post-project issues of infrastructure management have received little attention so far.

10. One cannot expect the community organizers and social workers to be knowledgeable about these post-project maintenance issues without adequate engineering input and support, which is not given.
11. The support that is given by the community organizers to Neighbourhood Committees will most probably terminate after completion of the works in the slum. This implies that any infrastructure management will be left to the communities. As the emphasis upon establishing maintenance practices is very low at present one cannot expect any miracles from the communities. Of the 5 studied slums, in only one slum (Amarnagar) has the Neighbourhood Committee established regular collection of money and some marginal maintenance practice.
12. The fact that Neighbourhood Committees are linked with Mahila Mandals is most appropriate for the implementation and sustenance of socio-economic and health programmes. However this might prove inadequate in respect of post-project management of infrastructure. Development of leadership capacity of the present Neighbourhood Committees is seen as crucial.
13. Although good intentions exist among the UCD-engineers to enhance post-project maintenance this has not materialized as yet due to the present pre-occupation with the implementation of the project.
14. The UCD functions very much as a separate entity in the Municipal Corporation. This benefits the integration of the different project components, as well as the progress of implementation. As other Departments are not involved on a day-to-day basis, the dissemination of the SIP approach and experiences to other departments cannot be sufficiently established. This is considered crucial in respect of the sustenance of community based-management of physical, social and economic infrastructure and programmes.

CHAPTER – VI

SYNTHESIS: TWO CASE STUDIES AND RECOMMENDATIONS

After description of the two case-studies in Bombay and Vishakhapatnam one needs to pose the question as to what findings and conclusions could support present and future projects that have taken the path of community-based public-private partnership in the management of urban infrastructure. What is the synthesis of both studies? What are the factors that could make such an approach successful, and what factors have a negative effect?

1. It should be noted that opportunity for housing improvement is in both projects the major incentive for residents to participate. Tenure security and housing improvements loans facilitate that development. The success of both SUP in Bombay and SIP in Vishakhapatnam will largely depend on the extent to which the project can facilitate housing improvement. In Bombay the SUP has a doubtful impact in that respect, due to unfavourable physical planning, limited legal and financial regulations and hampering procedures. Due to the delays in procedures residents lose their confidence in the SUP. Most slum dwellers conceive the provision in infrastructure to be of secondary importance to tenure security and housing loans. Provision of tenure-lease to women in Vishakhapatnam is considered positive for the development of the slum area as well as to enhance community-based maintenance.
2. Another factor to gain the slum dwellers' cooperation and motivation are the provision of socio-economic programmes. Socio-economic programmes are not integrated in Bombay's SUP. In Vizag socio-economic programmes run parallel to the implementation of infrastructure. Integration of these project components means a larger overall benefit for the slum dwellers and an additional factor to create a sense of responsibility for the maintenance of infrastructure.
3. The repayment of government housing loans, next to private and commercial credits will become a serious financial burden for the households. This will make it difficult for the residents to contribute for the repayment of installation and/or maintenance of infrastructure. Especially in Vizag this problem is foreseen when the repayment of the HUDCO loans (and other loans) will commence. In Bombay this affordability constraint is not expected as incomes are much higher.
4. Another factor of success for the community-based approach is the socio-geographical mapping of slums. In Bombay the demarcation of Cooperative Societies is not clear in the sense of creating a social entity, where one can expect a sense of belonging, responsibility and social control. Although the identified Cooperative Societies are rather small (less than 80 members), many are part of larger slums where it is impossible to exclude non-members from using the Society's facilities. In Vizag the socio-geographical mapping is more clear.

However, the size of some slums are that big that community sense may not be expected. In fact, sub-groups exist that compete with each other.

5. The development and/or establishment of strong leadership has been identified as one of the crucial factors in the success of community-based self-management. In more than half of the studied slums in Bombay and Vizag one cannot identify community-based organizations with strong leadership. The lack of leaders (male/female) or disputed leadership is more common. Caste, political and ethnic factions exist in communities in both cities. However from the questionnaires one can conclude that the households have confidence in the established Cooperative Societies Neighbourhood Committees.

The capacity of leaders depends to a large extent on their level of education, the capacity to communicate, to facilitate community decision-making and awareness of social relations. It has its affect on the capability of slum dwellers to manage infrastructure administratively, financially and organizationally.

6. Infrastructure provided by slum upgradation projects can have a major impact on the sense of benefit slum dwellers. Impact in the sense of environmental improvement and reduction of inconveniences (stagnant water, smell, pollution, obstruction, safety, distance and accessibility), can transform the slum into a pleasant and well-looking settlement that is similar to middle-income settlements. In Bombay, the Slum Upgradation Project did not have a clear net impact in most studied slums, especially compared to the earlier provided amenities under BMC's Slum Improvement Programme. Many problems of water supply, sanitation and drainage continue to exist in the slums. Thus, the slum dwellers have benefited only to a limited extent from the SUP efforts. This is a serious drawback on the sense of gained benefit and the aim to stimulate maintenance by the Cooperative Society. In Vishakhapatnam the impact is more evident in three out of five slums.
7. The application of standards for infrastructure provision that have been set by the implementing agencies is another factor in the success of the projects. In Bombay the standards have been applied in a much more rigid manner than in Vizag. This implied that deviant infrastructure needs expressed by communities or referring to acute environmental problems could not be met in Bombay. In Vishakhapatnam one can observe a variety of integrated infrastructure packages which are more diversified and by and large related to the circumstances in the slums. However, the magnitude of the investments per slum does not correspond to the slum size or environmental problems. The satisfaction of slum dwellers appears to be directly related to the actual met needs for infrastructure.
8. Sustenance functioning of infrastructure can only be achieved by early establishment of community-based maintenance routines. In most slums those routines have not been established. Maintenance is perceived as action after break-down, damage or complaints. Especially in respect of sanitation and drainage facilities, early established cleaning routines prove to be crucial. The importance of

establishing these routines is nowhere understood, as well as the purpose of regular collection of money, especially in Vishakhapatnam. Collection routines in Vizag have therefore been abandoned in four of the five studied slums. Thus, in both cities a bad start has been made to sustain the provided infrastructure.

9. Women are the main users of civic infrastructure, and therefore are an important human resource for its upkeep and maintenance. In Vishakhapatnam, women organizations play an important role in the implementation of socio-economic programmes. However, in respect of maintenance issues their role has not been very well defined. In Bombay the role of women has totally been neglected during project and post-project activities. To make women holders of tenure-lease, as is observed in Vishakhapatnam, might be a good impetus for the involvement of women in community-based maintenance.
10. Simple decision making procedures benefit the implementation of the project and helps to gain confidence among the beneficiaries. In Bombay, the implementing procedures and coordination of the involved agencies are more complex, and create confusion among the beneficiaries. Moreover, the similar Prime Minister's Grant Programme adds to this confusion. In Vishakhapatnam the concept of an Urban Community Development Department proves to be successful.
11. The role of the Community Development wing in the implementing agency is another important factor, facilitating self-management, accountability and in general generating slum development. Community development work has received much more emphasis in Vishakhapatnam. Here, the task of the community development workers covers activities that range from administrative support to Neighbourhood Committees to organizing midwife (Dais) training. In Bombay the scope of activities is limited to an intermediary role between the beneficiaries and the Project office (engineers and architects), i.e. explaining the project, the planned works, solving problems and establishing the Cooperative Societies. A common feature in both projects is that there is little focus upon the establishment of routines of preventive and corrective maintenance during the implementation phase of the project, nor upon the strengthening or development of appropriate leadership. Secondly, any support that is given at the time of the implementation will reduced drastically or stopped after the implementation.
12. The involvement of architects and engineers into post-project issues at the time of implementation is considered important. Their knowledge and experience are require to establish timely routines of maintenance by the communities. However, in both projects these professionals are pre-occupied with architectural and engineering matters of the implementation phase. Post-implementation matters receive limited attention. Moreover, there is little awareness of the importance of community participation matters and little interest to get involved.
13. The legal base that is provided for the community-based management by communities, determines the accountability of community representatives towards

their residents and, secondly, towards public bodies that have complementary responsibilities in the upkeep of infrastructure. In Bombay the Agreement of Lease, that is signed between MHADA and a Cooperative Society, clearly defines the jurisdiction inside the area of the Society, but fails to clarify explicitly the duties of the Cooperative Societies in respect of maintenance of infrastructure. Public bodies, nor members of the Society, can enforce the Society representatives to maintain the facilities on the basis of the Agreement. The Agreement of Lease does not commit the Bombay Municipal Corporation to give any support to the Societies to execute maintenance or to execute any off-site works or maintenance. In Vishakhapatnam a Declaration is signed by the representatives of the Neighbourhood Committee. The Declaration spells out the maintenance duties of the Neighbourhood Committee and those of the Municipal Corporation. However the Declaration does not provide any base for legal steps to enforce Neighbourhood Committee members or the Municipal Corporation to conduct any of the defined maintenance duties.

14. Especially in Bombay the concept of SUP brings about a reformulation of the interaction between the provider of infrastructure and the beneficiaries. The expression provider-beneficiary has become inadequate and one needs to think in terms of supplier-client. The client is the Cooperative Society that is buying infrastructure facilities from MHADA/BMC (on the basis of down payment and monthly instalments). However, the clients may disapprove of the quality of the infrastructure and may refuse to sign the Agreement. The attitude of MHADA has apparently not been adapted to that change. In Vishakhapatnam the public-private partnership comprises of the delegation of some responsibility to Neighbourhood Committees, but the Municipal Corporation remains responsible. The Municipal departments involved in post-project maintenance are not yet tuned to tap the human and (limited) financial resources that have become available at community level under the SIP.
15. The dissemination of the community-based approach of infrastructure management to other public bodies that are involved in maintenance is considered crucial. When these bodies support and adhere to this approach they will be able to adequately utilize the available human and financial resources in communities. The dissemination to other municipal departments in Vishakhapatnam and Bombay has not been established.
16. The questioning the concept of the projects in the sense of social equity is a factor most evident in Bombay, where slum dwellers pay both for the installation and recurrent cost of civic infrastructure. This might easily lead to a crisis of eligibility in time of elections, especially as the success of SUP is not as convincing yet. Secondly, there is an eroding conviction and dedication on the part of implementing bodies.

Recommendations

Both projects in Bombay and Vishakhapatnam are an attempt to tap community (or private) human and financial resources to manage urban infrastructure. One could

consider the two examples as an option for urban management of infrastructure. The implicit objective is of course to provide and sustain a higher level of basic services in low-income areas. If the concept proves successful other cities will be exposed to this approach. The research has revealed a number of issues that have potential to make this approach a success. The recommendations below suggest improvements that will reduce the risks of failure.

1. The integrated and less standardized provision of tenure rights, housing loans, socio-economic programmes and basic infrastructure, as seen in Vishakhapatnam, needs replication in other slum upgrading projects.
2. More attention should be given to the socio-demographic mapping of slum societies. Where societies are part of larger slums, an integrated approach should be adhered to and the establishment of unions of cooperative societies should be strived at. These societies should not be over 100 households.
3. The role of women during implementation and post-project infrastructure activities should receive much more emphasis. Firstly, through participation in decision-making in community-based organizations and secondly, through making them holders of tenure-lease.
4. It is necessary to monitor the total expenditure of households for housing. In this manner possible contributions to installation and maintenance cost could be assessed.
5. The integrated implementation of slum improvement projects are most effective when coordinated and executed by one single agency, such as the Urban Community Development Department.
6. A community-based approach requires a dominant role for the community development wing in the implementing agency.
7. The establishment, development and training of appropriate leadership should more emphasis in upgrading projects.
8. The standards of infrastructure should applied in a more flexible manner, such as to allow for meeting the expressed needs of the community, and to respond to urgent environmental problems and site specific conditions.
9. Post-project issues, such as establishing maintenance routines should have early priority. Not only community organizers, but also engineers and planners need to be closely involved to set up information and training activities.
10. Other (Municipal) departments that will be involved in post-project operations need to be involved in early project stages. Their support for community-based management is required in order to establish adequate procedures for the assistance and execution of community-based maintenance.

11. The implementing agency should develop a more client-oriented attitude, i.e. create a better awareness amongst the project staff towards the new role of supplier responding to the needs of the clients.
12. An explicit legal base or contract should be provided by which the community, as well as the supporting public agency are committed to conduct defined maintenance duties.
13. The timing of this research is at the outset of both projects. The performance of community-based organizations in the management of infrastructure could not be assessed. As the main objective of this research is to gain a better understanding of the potential role of community-based organizations in the management of provided infrastructure facilities, it is recommended to continue this research in 1990. The objectives could be defined as follows:
 1. To assess the condition of the provided infrastructure in the studied slums.
 2. To assess any changes in socio-economic characteristics of the communities.
 3. To assess the changes in attitude of beneficiaries towards community-based management of infrastructure facilities.
 4. To analyze the performance and capability of community-based organizations in the management of infrastructure.
 5. To assess the support that was provided by institutions.
 6. To formulate guidelines for planners and city administrators involved in implementation and management of similar projects and programmes.

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ANNEXURES



**MAHARASHTRA HOUSING AND AREA
DEVELOPMENT AUTHORITY**

(WORLD BANK PROJECT)

**Agreement of Lease
for
Slum Upgradation Scheme**

THIS INDENTURE OF LEASE made at Bombay, this day of _____
_____ 198 (One thousand nine hundred and eighty _____)
between the MAHARASHTRA HOUSING AND AREA DEVELOPMENT
AUTHORITY a Corporation constructed under the Maharashtra Housing and
Area Development Act, 1976 (Mah. XXVIII of 1977) hereinafter referred to as
"the said Act") having its office at Griha Nirman Bhavan, Kala Nagar, Bandra
(East), Bombay 400 051 the Lessor (hereinafter referred to as "the Authority"
which expression shall unless the context requires otherwise include its
successors and assigns) of the One Part:

AND

_____ Co-operative
Housing Society Limited, a society duly registered under the Maharashtra
Co-operative Societies Act, 1960 (Mah. XXIV of 1961) and bearing
Registration No. _____ dated the _____ 198 having
its registered office at _____
the Lessee (hereinafter referred to as "the Society" which expression shall unless
the context requires otherwise include its successors and permitted assigns) of the
Other Part;

WHEREAS the authority is possessed of or otherwise well and
sufficiently entitled to a piece or parcel of land admeasuring

_____Sq. yards that is _____ Sq. Metres or thereabouts situated at S.No._____ CTS No. _____ being part of the Authority's estate at _____ Bombay in the registration sub-district of Bandra, Bombay Suburban District and more particularly described in Schedule I hereinunder written and shown by red coloured boundary line on the plan hereto appended (hereinafter referred to as "the said plot of land");

AND WHEREAS the said plot of land has been unauthorisedly occupied by persons specified in column 3 of Schedule II hereinunder written (hereinafter referred to as "the slum dweller or the slums dwellers" as the context may require) each occupying an area as specified in column 4 thereof;

AND WHEREAS the Authority has prepared an upgradation scheme for carrying out environmental improvement of the said plot of land by providing infra-structural facilities and amenities such as common latrines, common stand pipes, passages, internal gutter lanes, sewerage system etc. and for rehabilitating the Slum Dwellers on a secure tenure provided they form a co-operative housing society for management and maintenance of the said common services facilities and amenities and for orderly conduct of all their common problems and matters;

AND WHEREAS the slum dwellers on the said plot of land have accordingly formed themselves into a co-operative housing society called the _____ Co-operative Housing Society Ltd. the Lessee hereto for the aforesaid purposes:

AND WHEREAS the Authority has agreed and decided to give the said plot of land to the said society on lease for a period of thirty years with effect from the date of execution of these presents/the _____ on payment of a lease rent of Rs.12/- (Rupees twelve only) per annum revisable at

the expiry of a period of twenty years and on payment of improvemental charges to be paid by each slum dweller member of the society as specified in column 5 of Schedule II hereunder written for and on behalf of the society for the purpose of rehabilitation of the slum dweller members by carrying out environmental improvement and improvement of their dwellings on the terms conditions and covenants hereinafter contained;

AND WHEREAS before the execution of these presents the society and the slum dweller members thereof have paid a sum of Rs. _____ (Rupees _____ only) towards a part of the improvemental charges out of the total amount of the said Improvemental charges of Rs. _____ (Rupees _____ only) the rest of the amount with interest thereon, at the rate of twelve percent per annum being agreed to be paid to the Authority within a period of twenty years in 240 monthly instalments of Rs. _____ (Rupees _____ only) and/or of such other modified sum as may be determined by the Authority from time to time and a sum of Rs.12/- (Rupees twelve only) towards lease rent for one year (the receipt of which the Authority doth admit and acknowledge);

AND WHEREAS it is expedient and necessary to execute this Indenture of Lease in favour of the society in pursuance of the above mentioned decision of the Authority agreed to by the society and by each member of the said society.

NOW THIS INDENTURE OF LEASE WITNESSETH AS FOLLOWS:

1. In consideration of the aforesaid sum of Rs. _____ (Rupees _____ only) being a part of the Improvemental charges out of the total amount of the said Improvemental charges of Rs. _____

_____ (Rupees _____ only) the rest of the amount being agreed to be paid by the society and by its members to the Authority in 240 monthly instalments as specified in Schedule II hereinunder written and Rs.12/- (Rupees twelve only) being the lease rent for one year, paid by the society to the Authority before the execution of these presents (the receipt of which Authority doth hereby admit and acknowledge) and in consideration of the lease rent hereinafter reserved and covenants hereinafter contained the Authority doth hereby demise by way of lease unto the society the said plot of land being a part of the Authority's estate and shown on the plan annexed hereto and thereon bounded in red TO HAVE AND TO HOLD the said plot of land for a term of thirty years commencing from the date of execution of these presents/the _____ 198_ (hereinafter referred to as "the commencement date") subject to the terms and conditions hereinafter mentioned yielding and paying therefore during the said term a sum of Rs.12/- (Rupees twelve only) per annum as lease rent for a period of twenty years and a sum as may be revised thereafter in accordance with terms and conditions hereinafter contained without any deduction, to be paid in advance every year on or before the day from the date on which the yearly term begins, every year at the office of the Authority or such other place as the Authority may from time to time specify in this behalf and intimate to the society.

2. (i) It is hereby agreed between the parties that the amounts towards environmental improvement charges remaining to be paid by the society to the Authority on the date of execution of these presents shall be treated as a loan to the society as well as to each of the slum dweller members thereto as specified in Schedule II hereinunder written and shall be repaid in 240 monthly instalments as specified in the said Schedule II. Repayment of the said amount shall be the

first charge on the said plot of land and the hutments or structures erected or to be erected thereafter thereon and shall also be liable to be recovered as arrears of land revenue under section 180 of the said Act;

(ii) It is also agreed that the amount to be paid towards the environmental improvement charges shall be liable to be paid jointly and severally by the society and by the individual slum dweller members as specified in Schedule II hereinunder written;

(iii) It is further agreed that each slum dweller member of the society shall have only the occupancy right of the area occupied by him;

(iv) The slum dweller members of the society have agreed to pay as specified in Schedule II hereinunder written through the Society the amounts of instalments towards the environmental improvement charges and other dues if any;

(v) The society hereby undertakes and agrees to collect from the slum dweller members the monthly instalments as specified in Schedule II hereinunder written and other dues if any every month and to pay the same before the 20th day of the said month and accordingly for that purpose shall require each of its members occupying the area in the demised premises to pay the monthly instalment in respect of such area occupied by him to the society before the 15th day of each month. The Society further undertakes and agrees that it shall not utilise the amounts so collected from the occupant members of Society for any of its own purposes and shall pay the same to the Authority without any deduction therefrom at such place as it may direct within the period herein mentioned. On receipt of the amounts in the office of the Authority, the Authority shall arrange to pass individual receipts in favour of each occupier specified in Schedule II and an acknowledgement to the society of the total amount received from it. It is

further agreed that if any occupier fails to pay the monthly dues before the 15th day of any month, the Authority shall be at liberty to recover the same from the occupier member together with delayed payment fee at the rate specified in Schedule II hereinafter written as arrears of land revenue under the said Act;

(vi) The society hereby agrees that the Authority is entitled as aforesaid to recover the monthly instalments from the occupant members of the society and to enforce the terms and conditions of the orders conferring occupancy rights on them in respect of the part of land occupied by them and the undertakings given by them to the Authority with respect to the same;

(vii) The society hereby agrees that in the event of any of the occupant members of the society vacating the tenement whether as a result of the proceedings taken by the Authority against him under the said Act for his failure to pay instalments in time or for the breach of any of the terms and conditions of occupation or for any other reason whatsoever the Authority shall be entitled to allot the occupancy right of the part of the land occupied by him to any other person on such terms and conditions as the Authority may think fit and the Society shall admit such allottee as a member of the Society on intimation by the Authority to that effect. On the admission of such allottee member and fixation of his monthly instalment, if necessary Schedule II to these presents shall be deemed to have been modified accordingly.

3. The Society doth hereby covenant with the Authority in the following manner that is to say:-

(a) to pay delayed payment fees on such amount of lease rent or any part thereof or of the environmental improvement charges or of any other dues to be paid by the society or its members to the Authority as shall remain unpaid

whether formally demanded or not for thirty days after the date on which the said amount or any other dues has or have become payable as aforesaid at the rate specified in Schedule II hereinunder written until the whole of such amount or dues has or have been paid;

(b) to take over the said plot of land in its existing condition and to incur all expenditure if any for the development of the said plot of land and to peacefully vacate the said plot of land on the expiry of the term of the lease hereby agreed to be granted or the extended term or earlier determination of the lease as the case may be and hand over the possession of the same to the Authority in its then existing condition;

(c) to abide by all rules and regulations, bye-laws and conditions now or at any time hereafter duly prescribed by the Government Municipal Corporation of Greater Bombay or by any other authority in so far as they relate to the said plot of land and the hutments or construction standing or erected thereon;

(d) to abide by and be bound by the provisions of the said Act and the rules and regulations and by-laws made under the said Act or under any law for the time being in force in so far as they relate to the said plot of land and to the hutments or constructions standing or erected thereon;

(e) to make or require its members to make any improvement or development of the hutments or constructions erected on the said plot of land in accordance with the rules and regulations and by-laws made by the Municipal Corporation of Greater Bombay and the Authority or any other statutory authority and not to commence such improvement or development as aforesaid without the written approval of the said Corporation and the Authority;

(f) to bear pay and discharge all the present and future rates taxes cesses

assessments including N.A. assessment levies, duties, impositions, penalties and outgoings, whatsoever assessed, imposed and charged upon or in respect of the said plot of land or hutments or constructions standing or constructed thereon by the Government or the Municipal Corporation of Greater Bombay or any other local Authority or statutory body under any law for the time being in force including all sanitary and water cesses of any kind whatsoever whether payable by the Authority or the society and all expenses relating thereto if any and save and keep harmless and indemnified the Authority in respect thereof;

(g) to permit the Authority and its authorised agents at all reasonable times to enter upon the said land and buildings erected thereon for the purpose of collection of rent or any other dues or for any other lawful purpose;

(h) not to use the said plot of land or allow or permit the members occupying the buildings constructed thereon for any purpose other than the one for which they are being used, save and except with the permission in writing of the Authority which may be granted at the discretion of the Authority subject to such terms and conditions as the Authority may think fit impose;

(i) to keep and maintain the open space of the said plot of land in a clean, neat and sanitary condition;

(j) to pay full compensation to the Authority for any loss, damage or injury that may be caused to the said plot of land or any part thereof by reason of the excessive user or any act of omission or commission on the part of the visitors or any other persons coming to or on the said plot of land or to the building and to indemnify the Authority on all such accounts;

(k) not to assign, sublet, underlet or otherwise transfer in any other manner including parting with the possession of the whole or any part of the said plot of

land or its interest thereunder or benefit of this lease or allow or permit any of its members to assigns, sublet, underlet or otherwise transfer in any other manner the occupancy right of the area occupied by him to any person without the previous written permission of the Authority. In case the Authority decides to grant such permission, the Authority shall be entitled to grant the same on such terms and conditions including the condition to charge and recover such transfer charges as may be determined by the Authority: Provided that such permission shall not ordinarily be given to a member of the society for transfer as aforesaid of his occupancy right of the area occupied by him for a period of five years from the date of the execution of these presents: Provided further, that the Authority shall not ordinarily withhold its permission to the society mortgaging its lease-hold rights in the said plot of land for obtaining loan for providing or maintaining common facilities, amenities or services or to the members thereof mortgaging their rights of occupancy of the part of land occupied by them for raising loans for their home improvement. Any such mortgage shall be subject to the charge created on the said plot of land or the buildings thereon under these presents or otherwise in favour of the Authority. The Society and the members thereof mortgaging its or their leasehold or occupancy rights as the case may be, shall give prior notice of the said charge the mortgage before application for permission for mortgaging of the said rights is made to the Authority;

(l) not to make or allow its members to make any excavation upon any part of the said plot of land without the previous consent of the Authority in writing first had and obtained except for the purpose of repairing, renovating or rebuilding the existing structure standing on the said plot of land or for utilising the floor space index (F.S.I.) if any;

(m) not to do or suffer anything to be done or allow its members to do or suffer

anything to be done on the said land which may cause damage, nuisance, annoyance or inconvenience to the occupiers of the adjacent premises or to the Authority or to the neighbourhood.

4. The Society shall be responsible for maintenance of facilities provided for or on the said plot of land. The maintenance shall involve sweeping and cleaning of pathways, collection of household garbage and carrying it to the nearest municipal dustbin, maintenance and replacement of common conveniences, maintenance and replacement of common structures for social facilities such as Balwadi, Dispensary etc. The society shall be entitled to levy, suitable service charges on its members or users of the facilities for this purpose.

5. The Authority hereby covenants with the society that on the society and its members paying the rents hereby reserved and the instalments of environmental improvement charges and of other dues if any and observing and complying with the duties and obligations of the society and of the members thereof shall peacefully hold and enjoy the said plot of land and the portions occupied by them during the said term without any unlawful interruption by the Authority or any person claiming through or under the Authority.

6. It is hereby and declared that all money, sums, dues and other charges payable by the society or its members under these presents shall be deemed to be arrears of rent payable in respect of the said plot of land and shall be recoverable from the Society and/or its members in the same manner as arrears of land revenue as provided in section 67 and 180 of the said Act as amended from time to time provided always that this clause shall not affect other rights, powers and remedies of the Authority in this behalf.

7. It is hereby agreed that if the lease rent hereby reserved or any part thereof

or any monthly instalment of environmental improvement charges of other dues if any, together with delayed fees thereon if any, to be paid by the society or by any member thereof shall be in arrears for sixty days after becoming payable (whether formally demanded or not) or if the society or the member fails to observe any of the terms, conditions or covenants stipulated herein then and in any of the said events, it shall be lawful for the Authority at any time thereafter by giving ninety days notice to terminate forthwith the lease of the land or any part thereof in respect of which the breach has occurred and thereupon re-enter upon and take possession of the said plot of land and the said part thereof and the building and other erections, fixtures, materials, plants, chattels and effects thereupon and to hold and dispose of the same as the property of the Authority as if this lease had not been entered into and without making to the society or to the member committing the breach any compensation or allowances for the same. It is hereby further agreed that the rights given by this clause shall be without prejudice to any other right of action of the Authority in respect of any breach of the covenants herein contained by the society or its members and it shall be lawful for the Authority to remove the society or the member committing the breach and all other persons in or upon the said plot of land or any part thereof and its effects therefrom, without in any way being liable to any suit action indictment or other proceedings for trespass damage or otherwise provided that if the society or the member committing the breach complies with the requirements of the aforesaid notice within the period stipulated in such a notice or within such extended period as the Authority may permit in writing the Authority shall not exercise the said right of re-entry.

8. The Authority and the society further agree that the lease rent of Rs.12/- per annum hereinbefore specified shall be liable to be revised by the Authority at

the expiry of the twenty years of the lease period and that, on expiry of the lease period of thirty years renewal of the lease shall be at the option of the Authority and if renewed shall be for such period not exceeding thirty years and on such terms and conditions as the Authority may deem fit.

9. Any notice intimation or demand required to be given or made by the Authority on the Society or the members thereof under this Indenture of Lease shall be deemed to be duly and properly given or made if given by the officer duly authorised by the Authority in that behalf and shall be deemed to be duly served if addressed to the society and/or the member as the case may be and delivered or affixed at the said plot of land or part thereof occupied by the member concerned or at the address of the society as stated hereinabove and any notice to be given to the Authority will be sufficiently served if addressed to the Vice-President of the Authority and delivered at his office.

10. The society shall bear and pay all costs, charges and expenses and professional charges of and incidental to the correspondence preparation execution and completion of this lease in duplicate thereof incurred by the Authority including stamp duty, registration charges out of pocket expenses and other outgoings in relation thereto and those occasioned to the Authority by reasons of any breach of terms conditions and covenants contained in these presents and for enforcing any right of the Authority under these presents.

11. The society hereby declares that the terms and conditions contained in this indenture of lease are acceptable to all the members of the society and that the society has unanimously passed Resolution No. _____ approving of the same in a meeting held on the _____ day of _____ 198_ attended by all the members of the society. A copy of the said resolution signed by all the members of the society is annexed as Schedule III to these presents.

IN WITNESS WHEREOF THE Signature of Shri _____
 _____ Director World Bank Project of the Maharashtra
 Housing and Area Development Authority for an on behalf of the Authority has
 been set hereunder and the seal of the Authority has been affixed and attested by
 the Officer of the Authority and the signatures of Shri _____
 Chairman and Shri _____ Secretary and Shri _____
 _____ Member of the managing committee of the Co-operative
 Housing Society for and on behalf of the Society and the seal of the society have
 been affixed hereunto on the day and year first hereinabove written.

SCHEDULE I

All that piece or parcel of land or ground of plot situated and lying at City
 Survey No. _____ of _____ in the Registration
 Sub-District of Bandra, Bombay Suburban District admeasuring _____
 Square metres or thereabouts and bounded as follows that is to say:-

On or towards the North by :

On or towards the South by :

On or towards the East by :

On or towards the West by :

SCHEDULE II

Sr. No.	Sub-Plot No.	Name of the occupier	Area occupied
1.	2.	3.	4.

Amount of Improvemental charges to be recovered	Monthly equated instalment towards repay- ment of Improve- mental charges	Amount of loan granted	Monthly instal- ment towards repayment loan
5.	6.	7.	8.

Amount of other dues, if any	Monthly inst- alment towards other dues	Delayed payment fee if and when payable (Rupees per month per instalment)	Total amount to be paid every month
9.	10.	11.	12.

SCHEDULE III

(Resolution No. _____ dated the _____
passed by the Society in its meeting held on the _____).

Signed, Sealed and Delivered)
by Shri _____)
Director, World Bank Project,)
Maharashtra Housing and Area)
Development Authority in the)
presence of Shri _____)
_____)

(_____)
Director, World Bank Project,
Maharashtra Housing and Area
Development Authority, Bombay.

The Common Seal of the Maharashtra Housing and Area Development Authority is affixed hereunto in the presence of Shri _____ Deputy Legal Adviser II, Maharashtra Housing and Area Development Authority who has signed in token thereof in the presence of Shri _____

(_____)

Deputy Legal Adviser II
Maharashtra Housing and Area
Development Authority, Bombay.

Signed, Sealed and Delivered by Shri _____ Chairman Shri _____ Secretary Shri _____ Member of the Managing Committee of the _____ Co-operative Housing Society who are duly authorised to execute this deed according to the resolution passed by the general body vide its Resolution No. _____ dated _____ in the presence of Shri _____ who have signed in token thereof.

The Common Seal of the Society)
is affixed hereunto in the presence)
of Shri _____)
who has signed in the token)
thereof in the presence of)
Shri _____)

Dated this

day of

198

**MAHARASHTRA HOUSING AND
AREA DEVELOPMENT AUTHORITY**

&

**CO-OPERATIVE HOUSING SOCIETY
LIMITED, BOMBAY.**

INDENTURE OF LEASE

Dated this

day of

198

Shri M.V. TATHAVADKAR
Legal Adviser
Maharashtra Housing and
Area Development Authority
BOMBAY-400 051.

**CHART-A
PRE-PLAN OF ACTION**

**Resource Mobilisation for Implementation of Post Project Sustainance
Programmes (For Each Slum) V.S.I**

Section	Wholly managed
I. People's Programme:	<ol style="list-style-type: none"> 1. Constitution or reconstitution of the Neighbourhood Committee by involving representations of all the functional groups in the slum and registering them as societies under the Societies of Registration Act. 2. Giving training in the management of the societies to the office-bearers. 3. Opening joint accounts, to be operated by Secretary or President of the Association and U.C.D. Representative and determine the extent of accountability of the U.C.D. representative in the management of their programmes. 4. Determining the rate of quantum of contribution per family per month, towards the slum maintenance fund for solely slum managed programmes. 5. Obtaining necessary legal sanctions from the Corporation for the Matching Grant contribution for the slum maintenance fund to perform their exclusive roles to a maximum of Rs.500/- per month. 6. Arrange for the collection of Municipal Taxes to the respective authorities.
II. People + Municipal Corporation:	<ol style="list-style-type: none"> 1. To prepare annual programme-activities and determine the modalities of joint operation and creating linkages for convergence of various programmes. Obtaining necessary orders from Government.
III. Municipal Corporation:	<ol style="list-style-type: none"> 1. Creating necessary financial and physical and social infrastructure, as a part of the Municipal Corporation activity under the obligatory or discretionary functions.

Note: All the above activities should proceed the start of the Vishakhapatnam Slum Improvement Programmes.

CHART-B

Roles and Responsibilities of The Participants in the Post Project Sustainance Programme in V.S.I.

S.No.	Name of the programme	I. Solely by people	II. Municipal Corporation
1.	1.1 Maintenance of Road	1.1.1 Prevention of unauthorised road cuttings and repairing the unauthorised road cuttings within the slum area.	1.1.2 Repairs to authorised cuttings, major repairs, re-metalling and recarpeting etc.
2.	2.1 Storm Water Drains Maintenance	2.1.1 Preventing the blockages and cleaning by way of silt removal of the drains everyday. 2.1.2 Repairs to the damaged S.W.D. due to natural disturbances and vehicular traffic.	2.1.2 Major repairs including extensions and widening.
3.	3.1 Maintenance of Water Stand Post & Pipe-lines	3.1.1 Replacement of defective or stolen bib-cocks, repairs to suction pumps of bore wells, repairs to the domestic feeder lines.	3.1.2 Extention and fixing up of new P.W.S.Ps and repairs to pipe line leakages in the mains & sub-mains inside the slum.
4.	4.1 Community Lavatory	4.1.1 Small repairs to the structure, repairs to the pan, removal of major chockages etc.	4.1.2 Extention of seats and major repairs involving more than Rs.1000/-.
5.	5.1 Street lightings	5.1.1 Preventing theft or breakages of the bulbs on light poles inside the slum and reporting to the electricity dept., about non-functioning of the street lights.	5.2.1 Shifting of the overhead power lines from roof tops of slum houses (Role of slum societies to the extent of pursuing matters). 5.2.2 Change of brackets, improvement of lighting, action against the offenders, replacement of fused-out/stolen bulbs.
6.	6.1 Community Hall	6.1.1 Daily cleaning of halls & toilets, annual white-wash and patch work, payment of electricity bills, water charges, repairs to doors, roof leakages, ventilators, etc.,	6.2.1 Repairs.
7.	7.1 Health Programme	7.1.1 Maintenance of the building of Primary Health Care Centre-Motivation of the mothers of new born eligible children to get the children protected and educating them in Family Planning Practices.	7.2.1 Salaries of Community Health Volunteers, Honorarium of Private Medical Practitioners, cost of medicines.
8.	8.1 Balwadies, N.F.E. Centres, Adult Education Centres	8.1.1 To ensure participation of all the children in the Balwadies and admit the children compulsorily in the schools after attaining the age of 6 years.	8.2.1 To meet the cost, salaries of Teachers & Ayahs etc. and replace the worn-out equipment once in 3 years

**Details of Financial Commitment by the Municipal Corporation, Vishakhapatnam and
the Slum Committee after the Project period is completed. (Post Project Sustainance)**

Sl.No.	Description	People's contribution			M.C.V. contribution				
		Unit cost	No. of units	Total	Unit Cost	No. of units	Total		
1.	Pre-Primary Education (Balwadi):								
	A. Teachers Honorarium:								
	Rs.400 x 12:	=	4,800		4,800	83	3,98,400		
	B. Dresses to Children:								
	Rs.3,000 x 1 centre	=	3,000	3,000	83	2,49,000			
	C. Equipment:								
	Replacement once in 3 years:								
	Rs.1,000/-	=	1,000		1,000	29	24,000		
	TOTAL	=	8,800						
2.	Adult Education:								
	A. Teachers Honorarium:								
	Rs.100 x 12	=	1,200		1,200	170	2,04,000		
	B. Contingencies:								
	Rs.40 x 12	=	480	480	170	81,600			
	TOTAL	=	1,680						
3.	Non-formal Education:								
	A. Teachers Honorarium:								
	Rs.200 x 12	=	2,400		2,400	50	1,20,000		
	B. Contingencies:								
	Rs.1,000/- per Centre	=	1,000		1,000	50	50,000		
	TOTAL	=	3,400						
4.	Study Tours:								
	A. Rate per head:		225		225	340	76,500		
5.	Reading Rooms & Libraries:								
	A. Cost of material supplied to each centre:		200	100	170	2,04,000	100	170	2,04,000
	TOTAL	=	425		5,34,600			10,76,500	

Sl.No.	Description	People's contribution			M.C.V. contribution		
		Unit cost	No. of units	Total	Unit Cost	No. of units	Total
6.	Health Clinics:		B/F	5,34,600		B/F	10,76,500
	A. Doctors Honorarium: Rs.500 x 12	=	6,000		6,000	170	10,20,000
	B. Community Volunteers: Rs.500 x 12	=	6,000		6,000	170	10,20,000
	C. Cost of Medicines: Rs.500 x 12	=	6,000		6,000	170	10,20,000
	D. Replacement of equipment: Rs.1,000/- per Centre	=	1,000		1,000	45	45,000
	TOTAL:	=	19,000				
7.	Childhood Disability Project:						
	A. Printing of Stationary	=	10,000				
	B. Physician camps	=	6,000				
	C. Specialists camps	=	27,000				
	D. Training to parents	=	10,000				
	E. Rehabilitation	=	50,000				
	F. Replacement of equipment	=	20,000				
	TOTAL:	=	1,23,000				1,23,000
8.	Supplementary Feeding:						
	A. Cost per Balwadi Rs.625 x 12	=	7,500		7,500	83	6,22,500
9.	Craft Centres:						
	A. Honorarium to the Instructors: Rs.400 x 12	=	4,800		4,800	170	8,16,000
	B. Repairs to machines to be attended by community						
				5,34,600			57,43,000

Note: As far as Civic Infrastructure is concerned, MCV will take up the renewal of servicing once in three years

PROJECT DIRECTOR

Sd/- K. RAJU
COMMISSIONER

DECLARATION

We, the accredited representatives of Slum Association, Registered under Societies Act. No. of 1987, hereby declare that we are in full agreement with the roles and responsibilities to be performed and discharged by us, as mentioned in the aforesaid document towards the maintenances of the physical, social and economic infrastructure/programmes, after the implementation of V.S.I.P. of which our slum/slum community as a beneficiary. In token where off we attest our signature hereunder:

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President:

Secretary:

Date:

Address:

Date:

Address:

WITNESS:

1. Name

Signature & Address

2.

6. How much does the HH spend per month on the following :

<u>Item</u>	<u>Amount</u>
Food	
Transportation	
Fuel	
Education	
Alcohol	
Medical care	
Rent	
Loan repayments	
Monthly bills	
Clothes	
Savings	
Total	

So would you say that your family income is Rs _____

7. Where do you get your water ?

	Inside Project Area	Outside Project Area	Why
Public tap			
Handpump			
Well			
Any other			

8. Where do you relieve yourselves?

	Inside Project Area	Outside Project Area	Why

M Public latrine

Private latrine

Open Air

F Public latrine

Private latrine

Open Air

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9. Where do you throw your garbage ?

Inside Project Area	Outside Project Area	Why
---------------------------	----------------------------	-----

Outside your house
Communal dump
Open drain
Low lying area
Any other (specify)

10. How do you appreciate the infrastructure provided ?

Satisfactory	Unsatisfactory	Why in either case ?
--------------	----------------	----------------------

Stand post
Public Latrine
Gutters
Garbage Collection
Pavement

11. What are the facilities you desire and are not provided by this project ?

12. Do you know the SUP project ?

Yes No

Can you explain the project ?

Well informed Less informed

13. Who was responsible for the implementation of the project ?

Well informed Less informed Did not know

14. Are you satisfied with the quality of work done ?

Yes No

15. Some tasks are necessary inside the settlement for maintaining infrastructure. According to the project who are to do the following:

	Household	Neighbour- hood Committee	Municipal - Corpn.	Who do you think should
	1	2	3	

- Repair of tap
- Repair of handpump
- Repair of tap floor
- Repair of water line
- Cleaning of latrines
- Repair of latrines
- Emptying of tanks
- Cleaning of gutters
- Repair of gutters
- Pavement sweeping
- Garbage dump repair
- Retaining wall repair

16. According to the Project, tasks like the above are the responsibility of the neighbourhood committee (repeat if necessary).

In your opinion is your neighbourhood committee capable of organising and carrying out these tasks.

If Yes, why ?

If No, why ?

What alternative do you suggest ?

17. How much is your monthly contribution towards costs and installation and maintenance of facilities ? Rs _____
Do you consider this amount reasonable ?

18. What other payments do you have to incur towards:

- Lease rent
- Loan repayment related to housing
- Electricity / water

19. The project aims at not overburdening you financially ; do you agree ?

Yes

No

If No, why ?

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6. How much does the HH spend per month on the following :

Item	Amount	Amount per month
Food	pd	
Transportation	pd	
Fuel	pm	
Education	pm	
Medical care	pm	
Rent	pm	
Loan repayments	pm	
Monthly bills	pm	
Clothes	pyr.	
Savings	pm	
Total		

So would you say that your family income is Rs _____

7. Where do you get your water ?

	Inside/Adjacent Project Area	Outside Project Area	Why
Public tap			
Handpump			
Well			
Any other			

8. Where do you relieve yourselves?

	Inside Project Area	Outside Project Area	Why

M Public latrine _____

Private latrine _____

Open Air _____

F Public latrine _____

Private latrine _____

Open Air _____

C Public Latrine

Private Latrine

Open Air

9. Where do you throw your garbage ?

	Inside Project Area	Outside Project Area	Why
--	---------------------------	----------------------------	-----

Outside your house
Communal dump
Open drain
Low lying area
Any other (specify)

10. How do you appreciate the infrastructure provided ?

	Satisfactory	Unsatisfactory	Why in either case ?
--	--------------	----------------	----------------------

Stand post
Handpump
Public Latrine
Gutters
Garbage Collection
Pavement
Private Latrine

11. What are the facilities you desire and are not provided by this project ?

12. Do you know the SIP project ?

Yes No

Can you explain the project ?

Well informed Less informed

13. Who was responsible for the implementation of the project ?

Well informed Less informed Did not know

14. Are you satisfied with the quality of work done ?

Yes No

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15. Some tasks are necessary inside the settlement for maintaining infrastructure. According to the project who do you think is do the following:

	Household	Neighbourhood Committee	Municipal Corpn.	If you disagree who you think should
	1	2	3	
Repair of tap				
Repair of handpump				
Repair of tap floor				
Repair of water line				
Cleaning of latrines				
Repair of latrines				
Emptying of tanks				
Cleaning of gutters				
Repair of gutters				
Pavement sweeping				
Garbage dump repair				
Retaining wall repair				
Pavement repair				

16. In your opinion is your neighbourhood committee capable of organising and carrying out repair and maintenance of infrastructure.

If Yes, why ?

If No, why ?

What alternative do you suggest ?

17. How much is your monthly contribution towards costs of installation and maintenance of facilities ? Rs _____ (Installation) Rs _____ (Maintenance)

Do you consider this amount reasonable ? Installation yes/no Maintenance yes/no

18. What other payments do you have to incur towards:

Lease rent

Loan repayment related to housing

Electricity / water

Repayment for income generating loan

19. The project aims at not overburdening you financially ; do you agree ?

Yes

No

If No, why ?

hudco

HUMAN SETTLEMENT MANAGEMENT INSTITUTE

IHSP HOUSEHOLD SURVEY QUESTIONNAIRES PUBLIC-PRIVATE PARTNERSHIP IN THE EFFECTIVE MANAGEMENT OF INFRASTRUCTURE

SUMMARY SHEET RESULTS

GENERAL

City	:	Goregaon West, Bombay
Name Settlement	:	Subhash Nagar
Survey Dates	:	3.3.89
No. of Questions	:	4
Sample Size	:	10%
Serial No.'s quest	:	092, 093, 094, 095

SOCIO – ECONOMIC DATA

(No.'s refers to no.'s of questions in questionnaire)

3.	a.	House Ownership:	100% owned	___ % rented
	b.	Leasehold Plot :	100% have	___ % have not
4.		Duration of residence :	___ % < 10 yrs.	100 % > 10 yrs.
5.		Households :	5.25 p.p.h.	57% male 43 % female
		Age structure :	10% 0-6 yrs	23% 7-17 yrs ___ % > 18 yrs.
		Education :	___ % illiterate	29% school 71% college
		Occupation (Nos.) :	6 persons req. service	1 person self. empl. 2 persons other
		Total Employment :	___ p.p.h.	
		Income (Stated) :	2467 Rs. per month per household	
6.		Expenditures (Stated) :	___ Rs. per month per household	
		Income brackets :	___ < 700	
		Average Income and expenditure in Rs. per month per household :	25% 701 – 1500	
			___ 1501 – 2500	
			75% > 2500	

USE OF INFRASTRUCTURE (existing)

7. Water Sources (%):

	Inside/Adjacent Project Area	Outside Project Area	Any reasons
Public Tap	100	—	
Handpump	—	—	
Well	—	—	
Any other	—	—	

8. Sanitation (%):

	Inside Project Area			Outside Project Area			Any reasons
	Male	Female	Children	Male	Female	Children	
Public latrine	100	100	100	—	—	—	
Private latrine	—	—	—	—	—	—	
Open air	—	—	—	—	—	—	

9. Garbage Disposal (%):

	Inside Project Area	Outside Project Area	Any reasons
Outside house	—	—	
Communal dump	—	—	
Open drains	—	—	
Low lying areas	—	—	
Any other	—	100	

SLUM UPGRADING / IMPROVEMENTS

10. Appreciation of provided infrastructure (%):

	Satisfied	Not satisfied	Any reasons
Standposts/Public tap	100	—	
Handpumps	—	—	
Public latrines	100	—	
Gutters	100	—	
Garbage Collection	—	100	
Pavement	100	—	
Private latrines	—	—	

11. Expressed additional needs for slum improvement:

	%
Dispensary, Hospital	—
Primary School	—
Park, Recreation facilities	—
Tapstands (Private)	100
Handpumps	—
Public latrines	—
Private latrines	—
Community Hall	—
Community dump/collection	100
Housing (Improvement/reconstruction)	100
Others	—

12. Knowledgeable about Project 100% yes — % no
 Capacity to explain project 100% well informed — % less informed
13. Knowledgeable about 100% well informed — % less informed
 implementing agencies — % do not know
14. Satisfied with the 100% yes — % no
 quality of work

15. Responsibilities for maintenance of infrastructure (%):

Agency Duties	House hold	Neighbourhood	Municipal Corp.	Remarks
1. Repair of tap	—	100	—	
2. Repair of handpump	—	—	—	
3. Repair of tapfloor	—	100	—	
4. Repair of waterline	—	100	—	
5. Clean latrines	—	—	100	
6. Repair latrines	—	100	—	
7. Empty tanks	—	—	—	
8. Clean gutters	—	—	100	
9. Repair gutters	—	100	—	
10. Sweep pavement	—	100	—	
11. Repair garbage dump	—	100	—	
12. Repair ret. wall	—	—	—	
13. Repair pavement	—	100	—	

16. Capability of neighbourhood committee to carry out duties:

100% yes Any reasons: work well, are interested and able
 — % no Any reasons:

Suggested alternatives:

17. Present contribution to installation and/or maintenance of infrastructure facilities:

___ % pays ___ Rs. per month p.h. ___ % considers reasonable
___ % pays 10 Rs. per month p.h. 100% considers reasonable

18. Other payment that households have to incur:

	%	Remarks
Lease rent	—	
Housing loan repayment	—	
Electricity/Water	—	
Income generating	—	
Loan repayment	—	

19. Project aims at not overburdening households:

100% agrees ___ % does not agree.

Reasons mentioned :

Did not benefit from project

HUMAN SETTLEMENT MANAGEMENT INSTITUTE

IHSP HOUSEHOLD SURVEY QUESTIONNAIRES PUBLIC-PRIVATE PARTNERSHIP IN THE EFFECTIVE MANAGEMENT OF INFRASTRUCTURE

SUMMARY SHEET RESULTS

GENERAL

City : Andheri West, Bombay
Name Settlement : New Shivaji Nagar, Ambivali
Survey Dates : 28.2.89; 1.3.89; 4.3.89
No. of Questions : 16
Sample Size : 20%
Serial No.'s quest : 001 to 006; 036 to 040; 121 to 125

SOCIO – ECONOMIC DATA

(No.'s refers to no.'s of questions in questionnaire)

3. a. House Ownership: 100% owned ___ % rented
b. Leasehold Plot : 100% have ___ % have not

4. Duration of residence : ___ % < 10 yrs. 100% > 10 yrs.

5. Households : 4.9 p.p.h. 63% male 37% female
Age structure : 4% 0-6 yrs 27% 7-17 yrs 69% > 18 yrs.
Education : 18% illiterate 70% school 8% college
Occupation (Nos.) : 10 persons 5 persons 13 persons
req. service self. empl. other

Total Employment : ___ p.p.h.
Income (Stated) : 1350 Rs. per month per household

6. Expenditures (Stated) : ___ Rs. per month per household
Income brackets : 18% < 700
Average Income and
expenditure in Rs. : 45% 701 – 1500
per month per
household : 31% 1501 – 2500
6% > 2500

USE OF INFRASTRUCTURE (existing)

7. Water Sources (%):

	Inside/Adjacent Project Area	Outside Project Area	Any reasons
Public Tap	100		
Handpump	—		
Well	—		
Any other	—		

8. Sanitation (%):

	Inside Project Area			Outside Project Area			Any reasons
	Male	Female	Children	Male	Female	Children	
Public latrine	100	100	100				
Private latrine	—	—	—				
Open air	—	—	—				

9. Garbage Disposal (%):

	Inside Project Area	Outside Project Area	Any reasons
Outside house	—		
Communal dump	—		
Open drains	—		
Low lying areas	—		
Any other	—	100	

SLUM UPGRADING / IMPROVEMENTS

10. Appreciation of provided infrastructure (%):

	Satisfied	Not satisfied	Any reasons
Standposts/Public tap	100		
Handpumps	—		
Public latrines	100		
Gutters	100		
Garbage Collection	—	100	
Pavement	100		
Private latrines	—		

11. Expressed additional needs for slum improvement:

	%
Dispensary, Hospital	—
Primary School	—
Park, Recreation facilities	—
Tapstands (Private)	—
Handpumps	—
Public latrines	—
Private latrines	—
Community Hall	60
Community dump/collection	100
Housing (Improvement/reconstruction)	100
Others	—

12. Knowledgeable about Project 87.5% yes 12.5% no
 Capacity to explain project 87.5% well informed 12.5% less informed

13. Knowledgeable about 94% well informed 6% less informed
 implementing agencies 6% do not know

14. Satisfied with the 87.5% yes 12.5% no
 quality of work

15. Responsibilities for maintenance of infrastructure (%):

Agency Duties	House hold	Neighbourhood	Municipal Corp.	Remarks
1. Repair of tap	—	100	—	
2. Repair of handpump	—	—	—	
3. Repair of tapfloor	—	100	—	
4. Repair of waterline	—	31.25	69.75	
5. Clean latrines	—	69.75	31.25	
6. Repair latrines	—	100	—	
7. Empty tanks	—	—	—	
8. Clean gutters	—	25	75	
9. Repair gutters	—	93.75	6.25	
10. Sweep pavement	—	100	—	
11. Repair garbage dump	—	75	25	
12. Repair ret. wall	—	—	—	
13. Repair pavement	—	100	—	

16. Capability of neighbourhood committee to carry out duties:

100% yes Any reasons: work well, are interested and able
 —% no Any reasons:

Suggested alternatives:

17. Present contribution to installation and/or maintenance of infrastructure facilities:

___ % pays ___ Rs. per month p.h. ___ % considers reasonable
___ % pays 10 Rs. per month p.h. 100% considers reasonable

18. Other payment that households have to incur:

	%	Remarks
Lease rent	___	
Housing loan repayment	___	
Electricity/Water	___	
Income generating	___	
Loan repayment	___	

19. Project aims at not overburdening households:

81.25% agrees 18.75% does not agree.

Reasons mentioned :

Did not benefit from project

HUMAN SETTLEMENT MANAGEMENT INSTITUTE

IHSP HOUSEHOLD SURVEY QUESTIONNAIRES PUBLIC-PRIVATE PARTNERSHIP IN THE EFFECTIVE MANAGEMENT OF INFRASTRUCTURE

SUMMARY SHEET RESULTS

GENERAL

City : Santa Cruz, East Bombay
Name Settlement : Prabhat Colony
Survey Dates : 28.2.89; 1.3.89; 7.3.89
No. of Questions : 12
Sample Size : 17%
Serial No.'s quest : 007 & 008; 041 to 045; 130 to 184

SOCIO – ECONOMIC DATA

(No.'s refers to no.'s of questions in questionnaire)

3. a. House Ownership: 100% owned ___ % rented
b. Leasehold Plot : 100% have ___ % have not

4. Duration of residence : 16% < 10 yrs. 84% > 10 yrs.

5. Households : 5.3 p.p.h. 57% male 43% female
Age structure : 11% 0-6 yrs 25% 7-17 yrs 64% > 18 yrs.
Education : 17% illiterate 78% school 5% college
Occupation (Nos.) : 12 persons 3 persons 2 persons
req. service self. empl. other
Total Employment : ___ p.p.h.
Income (Stated) : 1395 Rs. per month per household

6. Expenditures (Stated) : ___ Rs. per month per household
Income brackets : 8% < 700
Average Income and
expenditure in Rs. : 50% 701 – 1500
per month per
household : 42% 1501 – 2500
___ > 2500

USE OF INFRASTRUCTURE (existing)

7. Water Sources (%):

	Inside/Adjacent Project Area	Outside Project Area	Any reasons
Public Tap	100	—	
Handpump	—	—	
Well	—	—	
Any other	—	—	* Use of Wells (IP) for bathing & other purposes

8. Sanitation (%):

	Inside Project Area			Outside Project Area			Any reasons
	Male	Female	Children	Male	Female	Children	
Public latrine	100	100	100	—	—	—	
Private latrine	—	—	—	—	—	—	
Open air	—	—	—	—	—	—	

9. Garbage Disposal (%):

	Inside Project Area	Outside Project Area	Any reasons
Outside house	—	—	
Communal dump	—	—	
Open drains	—	—	
Low lying areas	—	—	
Any other	—	100	

SLUM UPGRADING / IMPROVEMENTS

10. Appréciation of provided infrastructure (%):

	Satisfied	Not satisfied	Any reasons
Standposts/Public tap	100	—	
Handpumps	—	—	
Public latrines	100	—	
Gutters	100	—	
Garbage Collection	—	100	
Pavement	100	—	
Private latrines	—	—	

17. Present contribution to installation and/or maintenance of infrastructure facilities:

___ % pays ___ Rs. per month p.h. ___% considers reasonable
___ % pays 10 Rs. per month p.h. 100% considers reasonable

18. Other payment that households have to incur:

	%	Remarks
Lease rent	—	
Housing loan repayment	—	
Electricity/Water	—	
Income generating	—	
Loan repayment	—	

19. Project aims at not overburdening households:

100% agrees ___% does not agree.

Reasons mentioned :

Did not benefit from project

HUMAN SETTLEMENT MANAGEMENT INSTITUTE

IHSP HOUSEHOLD SURVEY QUESTIONNAIRES PUBLIC-PRIVATE PARTNERSHIP IN THE EFFECTIVE MANAGEMENT OF INFRASTRUCTURE

SUMMARY SHEET RESULTS

GENERAL

City : Sion, Bombay
Name Settlement : Chunnabhatti (Muktadevi Nagar)
Survey Dates : 8.3.89
No. of Questions : 10
Sample Size : 11%
Serial No. 's quest : 136 to 195

SOCIO - ECONOMIC DATA

(No.'s refers to no.'s of questions in questionnaire)

3. a. House Ownership: 100 % owned ___% rented
b. Leasehold Plot : ___ % have. 100% have not

4. Duration of residence : 30 % < 10 yrs. 70 % > 10 yrs.

5. Households : 5 p.p.h. 52% male 48% female
Age structure : 8% 0-6 yrs 48% 7-17 yrs 44% > 18 yrs.
Education : 10% illiterate 90% school ___% college
Occupation (Nos.) : 9 persons req. service 1 person self. empl. 1 persons other
Total Employment : ___ p.p.h.
Income (Stated) : 1465 Rs. per month per household

6. Expenditures (Stated) : ___ Rs. per month per household
Income brackets : ___ < 700
Average Income and expenditure in Rs. : 80% 701 - 1500
per month per household : 20% 1501 - 2500
___ > 2500

USE OF INFRASTRUCTURE (existing)

7. Water Sources (%):

	Inside/Adjacent Project Area	Outside project Area	Any reasons
Public Tap	100	—	—
Handpump	—	—	—
Well	—	—	—
Any other	—	—	—

8. Sanitation (%):

	Inside Project Area			Outside Project Area			Any reasons
	Male	Female	Children	Male	Female	Children	
Public latrine	—	—	—	100	100	—	—
Private latrine	—	—	—	—	—	—	—
Open air	—	—	—	—	—	100	—

9. Garbage Disposal (%):

	Inside Project Area	Outside Project Area	Any reasons
Outside house	—	—	—
Communal dump	—	30	—
Open drains	—	—	—
Low lying areas	—	—	—
Any other	—	70	—

SLUM UPGRADING / IMPROVEMENTS

10. Appreciation of provided infrastructure (%):

	Satisfied	Not satisfied	Any reasons
Standposts/Public tap	100	—	—
Handpumps	—	—	—
Public latrines	—	100	—
Gutters	30	70	—
Garbage Collection	—	100	—
Pavement	100	—	—
Private latrines	—	—	—

11. Expressed additional needs for slum improvement:

	%
Dispensary, Hospital	—
Primary School	—
Park, Recreation facilities	—
Tapstands (Private)	—
Handpumps	—
Public latrines	100
Private latrines	—
Community Hall	—
Community dump/collection	100
Housing (Improvement/reconstruction)	100
Others	—

12. Knowledgeable about Project 60% yes 40% no
 Capacity to explain project 60% well informed 40% less informed
13. Knowledgeable about 60% well informed 40% less informed
 implementing agencies 40% do not know
14. Satisfied with the 30% yes 70% no
 quality of work

15. Responsibilities for maintenance of infrastructure (%):

Agency Duties	House hold	Neighbourhood	Municipal Corp.	Remarks
1. Repair of tap	—	100	—	
2. Repair of handpump	—	—	—	
3. Repair of tapfloor	—	100	—	
4. Repair of waterline	—	60	40	
5. Clean latrines	—	60	40	
6. Repair latrines	—	100	—	
7. Empty tanks	—	—	—	
8. Clean gutters	—	60	40	
9. Repair gutters	—	100	—	
10. Sweep pavement	—	100	—	
11. Repair garbage dump	—	60	40	
12. Repair ret. wall	—	—	—	
13. Repair pavement	—	100	100	

16. Capability of neighbourhood committee to carry out duties:

100% yes Any reasons: work well, are interested and able
 —% no Any reasons:

Suggested alternatives:

17. Present contribution to installation and/or maintenance of infrastructure facilities:

___ % pays ___ Rs. per month p.h. ___ % considers reasonable
 ___ % pays 10 Rs. per month p.h. 100% considers reasonable

18. Other payment that households have to incur:

	%	Remarks
Lease rent	---	
Housing loan repayment	---	
Electricity/Water	---	
Income generating	---	
Loan repayment	---	

19. Project aims at not overburdening households:

100% agrees ___ % does not agree.

Reasons mentioned :

Did not benefit from project

HUMAN SETTLEMENT MANAGEMENT INSTITUTE

IHSP HOUSEHOLD SURVEY QUESTIONNAIRES PUBLIC-PRIVATE PARTNERSHIP IN THE EFFECTIVE MANAGEMENT OF INFRASTRUCTURE

SUMMARY SHEET RESULTS

GENERAL

City : Kurla East, Bombay
Name Settlement : Vijay Rahivashi Sangh
Survey Dates : 2.3.89
No. of Questions : 15
Sample Size : 13%
Serial No.'s quest : 077 to 091

SOCIO - ECONOMIC DATA

(No.'s refers to no.'s of questions in questionnaire)

3. a. House Ownership: 100 % owned ___ % rented
b. Leasehold Plot : ___ % have 100% have not

4. Duration of residence : ___ % < 10 yrs. 100% > 10 yrs.

5. Households : 43 p.p.h. 51% male 49% female
Age-structure : 9% 0-6 yrs 32% 7-17 yrs 59% > 18 yrs.
Education : 25% illiterate 72% school 3% college
Occupation (Nos.) : 10 persons 8 persons 6 persons
req. service self. empl. other
Total Employment : ___ p.p.h.
Income (Stated) : 1367 Rs. per month per household

6. Expenditures (Stated) : ___ Rs. per month per household
Income brackets : 13% < 700
Average Income and
expenditure in Rs. : 60% 701 - 1500
per month per
household : 27% 1501 - 2500
___ > 2500