

SETTLEMENT PROCESSES AND STRATEGY IN METROPOLITAN AREAS:
POLICY OPTIONS FOR IMPROVEMENT OF SLUMS IN PAKISTAN.

A thesis submitted to the Centre for Planning, University of Strathclyde, Glasgow in fulfilment of the requirement for award of the degree of DOCTOR OF PHILOSOPHY in Urban and Regional Planning.

by

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DEDICATED to

Alijah Allahdino -- my Father

Karan Bai -- my Mother

Mehrunisa -- my Wife and

Noureen and Noshad -- my Children.

ABSTRACT

It has been experienced that in addition to the natural growth of population the migrants from rural to urban areas have created enormous problems. In result these problems have affected the human settlement patterns and degraded environments in the metropolitan areas of the Third World, Pakistan particularly Karachi.

The phenomenal development which occurred at an apparently fast pace has also created pressures on basic utilities and problems for the authorities concerned with the improvement of environment in the metropolitan areas. Lack of adequate housing and infrastructure for millions of people of low-income groups living in slums locally known as Katchi Abadis are the main challenges for the urban planners in Pakistan. The essential focus of this research is on human settlement patterns and particularly on those physical and social problems affecting the environment in metropolitan Karachi as a whole and in the Katchi Abadis in particular.

To understand the nature of the problems and formulation of applicable policies the research is based on the data collected from Lyari and Korangi two Katchi Abadis in Karachi. In view of the analysis of the process of slum formation, policies and hindrances to the execution of applied policies and present situation in the case study areas this study has proposed two types of

policy and a modified management system for the adequate implementation of proposed policies to overcome the problems of Katchi Abadis in Pakistan; particularly in two selected Katchi Abadis in the Karachi metropolitan area. These policies may hopefully result in upgrading the environment in large cities in developing countries and in Pakistan and Karachi in particular.

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GLOSSARY.

Throughout this study, several key terms are used, some interchangeably. These terms are explained below.

THIRD WORLD / DEVELOPING COUNTRIES.

Third World is a generic term used to describe those regions of the world which are still relatively low in per capita income as measured by western standards and in which population is still predominantly rural but urbanising rapidly. Dualism in economic structure, (formal and informal sectors) resulting duality of social and spatial structure is a common characteristic of most of the Third World cities. Other terms have also been given to describe these nations such as "developing", "less developed", "Under developed" and "less industrialised" countries. These terms will be used interchangeably throughout this study.

URBANISATION.

Urbanisation is a concept, which has many interpretations- "a balloon into which each social scientist blows his / her meaning". For the purpose of this study, I base my definition of urbanisation on the definition of one scholar. Lampard (1965) sees urbanisation as a way of ordering a population so as to attain a certain level of subsistence and security in a given environment.

METROPOLITAN: METROPOLIS.

A metropolis, as a distinctive form of human settlement exhibits high density. These populous centres are much more thickly settled and intensively used for urban activities than are any other sub-areas. All urban areas occupying more than 1 M population are metropoles or possess metropolitan characteristics by any definition.

NEW SETTLEMENT.

For the purpose of this study the term new settlement is defined as a urban settlement, consciously planned from its inception in response to clearly stated objectives. It is constructed either on previously undeveloped land or based on existing pre-urban nuclei, and is to contain various essential urban elements such as various types and levels of residential, commercial, social, and cultural facilities, and economic bases. It aims to be a balanced community, socially, economically and ecologically.

KATCHI ABADI.

The term katchi abadi(s) is repeatedly used in this study. According to Housing, Town planning, Local Government and Rural Development Department Government of Sindh (1983) " an area which was patially or wholly occupied unauthorisedly for residential and commercial or industrial purposes before the first day of January, 1978 and continues to be so occupied to be a Katchi Abadi."

TYOLOGY OF HOUSES.

During visit to the katchi abadis (slums) in Karachi the author interviewed heads of different type households. (Part 3 of this study) The following types of houses were found in newly developed autonomous settlements.

juggi type : a dwelling made of straw, bamboo, canvas, mats, jute sacks, tin or wood.

katcha type : a dwelling unit whose walls and roof are made of thatch and bamboo with mud used as principal component.

semi-pucca type: a dwelling made partly of pucca material i.e cement blocks, bricks or stones and galvanized iron sheets and partly of wood and mud.

pucca type: a dwelling with all its walls and roof made entirely of cement blocks, bricks or stones.

concrete type: a dwelling made of cement blocks or bricks with reinforced concrete cement roof.

For further details refer to Van der, J. Linden (1977) "The Bustees of Karachi: Types and Dynamics."

MONETORY TERMS.

During field work the respondents were asked about their income and expenditure. For ease in this study the terms Pakistani rupees are denoted by Pak Rs.

At the time of visit to the Study Areas the rate of local currency in International trade market was as under: Pak Rs. 100 = US \$ 5 and £ 3.25, at present due to high rate of inflation Pak Rs. 100 = US \$ 5 and £ 2.5.

Chapter One. Identifying The Problem And Deciding On The Most Appropriate Method Of Inquiry.

Introduction.

1.001 The majority of settlement problems that developing countries face today may be traced in the anabatic growth rate of their population. The experience has shown that the overall population growth in the world has been accelerating since 1950, and the ratio of urban-to-rural population is also increasing. The urban population of the world is increasing at a rate of about 3% per annum.

1.002 One of the most significant demographic phenomena of modern times, and one that promises to loom ever larger in the future, is the rapid growth of the population in developing countries. By 1970, developing countries accounted for 70% of the world's population. In 1985, the population of such countries was 3.7 billion and is expected to reach 4.8 billion by the year 2000. According to Alvi (1987) "By the end of the century 8 out of 10 people will be living in developing countries."

1.003 In view of their relatively high growth rates, the corresponding proportion of the world's urban population in the developing countries is projected to grow at an average rate of 51 M people per year. If present trends continue then Nizami (1985) says "the urban population will increase from 22% to 42% by then, implying that approximately 67% of

the total increase in their population will be located in urban areas and 44% of the total urban population will be concentrated in cities with the population over one million." The population of some large cities of the Third World is shown in the Table 1.1.

Table 1.1. Demographic Concentration in Large Cities of Third World Countries 1977.

Name of City	ME	UR	ME/UR	NA	ME/NA	growth rate 1977	
	M	M	%	M	%	% per annum ME	NA
Bangkok	4.8	8	60	44	11.0	5.0	2.9
Bombay	7.6	133	6	632	1.2	3.7	2.1
Calcutta	8.8	133	7	632	1.4	2.2	2.1
Colombo	2.1	3.5	60	14	14.9	2.9	1.7
Jakarta	6.2	24	26	133	4.3	4.6	1.8
KARACHI	5.0	20	25	75	6.6	5.0	3.1
Madras	4.4	133	3	632	0.7	4.0	2.1
Manila	5.3	15	35	45	11.8	3.8	2.7

ME = metropolitan population, UR = urban population,

NA = national population.

Source: Sivaramakrishnan, K.C. (1986).

1.004 It is understandable that throughout the world, particularly in developing and underdeveloped countries, with limited resources, one of the major reasons for the increase in the urban population is the recognised factor of migration from rural-to-urban areas, particularly to the large cities. The migrants migrate from their place of origin, in search of employment opportunities, better

quality of life, better education, health and other services, which a citizen may enjoy simply by being in a city environment. However on their arrival in the city, the poor face a hard situation, experience problems of settlement which they could only imagine at the time of migration.

1.005 Due to rapid urbanisation of large cities, high growth of urban population, limited resources, lack of funds and poverty, there is a lack of formal housing in the cities of most of the developing countries. There is no place left for the poor person to accommodate himself in the formal housing and employment sectors of the city. Hence he is forced to develop a new settlement, known as a low-income settlement.

1.006 The phenomena of low income settlements leading to the formation of slums in urban areas have become universal today. This terminology is neither tight nor concise. Every country has a generic name for these kinds of settlements. Ranchos in Peru, the Favelas and Barriodas of South America, Gorbivillos in Tunisia, the Bidonvilles of North Africa, the Tomb houses or Jerry-built shacks of Cairo, Casbahs in Algeria, Bastees; the Tintowns and Shacks of India and the Katchi Abadis of Pakistan are the different names of low income settlements developed by the urban poor in each country. These settlements are developed by various processes at different intervals as a response to the conditions and politics of their time in each country.

1.007 The low-income settlements in Pakistan, according to the K D A (1985) "are called katchi abadis." The katchi abadis in Pakistan came into existence at different intervals as a response to the politics of their time. Due to the development of such low-income settlements on a large scale, lacking basic social services, infrastructure and job opportunities for both skilled and unskilled residents have degraded environments in the metropolitan areas of Pakistan particularly Karachi metropolis.

Identification of the Problem.

1.008 One phenomenon common to developing countries is the inequality of resources as between rural and urban dwellers. The urban residents have the advantage of their close proximity to industrial and other resources which are part of the metropolitan environment. By contrast, the rural residents, (comprising the bulk of even the most urbanising Third World nations) have little access to these tools of modernisation.

1.009 The modernisation being concentrated within the large cities has encouraged the rural residents to migrate to the cities. Overpopulation, limited resources, and lack of agricultural opportunities in the rural areas, as well as the eagerness to escape from the limitations of their traditional environments have been decisive factors in the migration of people into urban areas. Experience shows that

this was not the case historically when the developed countries of Europe and North America urbanised. In those countries the migrants who left agriculture, as its productivity rose and the need for farm labour declined, moved into more productive industrial jobs in the city. In view of Todaro (1984) the urbanisation currently occurring in the developing countries differs from the corresponding past experience of developed countries as a result of the following four factors:

1. rapid population growth;
2. gradual decline in some countries of available agricultural land per capita;
3. decline in cost of transportation and communications in general; and
4. relatively fixed territorial boundaries and barriers to International migration.

1.010 Accelerated urbanisation has led to the formation of a massive urban proletariat whose members, lacking particular job skills, are only marginally within the labour market. This situation has created an unbalanced socio-economic growth in urban society, which in turn has resulted in a gap between those who are part of the accelerating sector and those who are left behind. Characterised by these extreme physical social and economic inequalities, a distinctive

physical environment appears commonly in the urban landscape of the Third World: a substantial and growing number of people are living in what may be called low-income settlements.

1.011 These settlements are seen not only as downgrading the beauty of the city but also as focal points of unemployment, and a breeding ground for pollution, disease, crime, immorality and other social ills. While in many respects these settlements pose problems for most cities, it is doubtful that they could ever be eliminated completely. The low-income settlements, as described above have become the prevailing form of urbanisation throughout the Third World. It appears that most of the Third World countries accept the existence of these settlements leading to slums as a semi-permanent feature of their urbanisation. (See Table 1.2) Blair (1974) says that "urban slums are world-wide problems, as common in the great and not-so-great cities of Europe and North America, as they are in the new Nations of the Third World. Slums are residential areas so physically and socially deteriorated as to make satisfactory family life impossible."

1.012 Due to the existence of low-income settlements and slums in the large cities, the Developing Countries are facing problems of a different nature, such as:

Table 1.2 Low-Income Settlements in Some Developing Countries and Population (%) Living in Settlements.

Region Country	City	Population (%) Slum Dwellers	Year
Sub-Saharan Africa:			
Ghana	Accra	53.0	1968
Kenya	Nairobi	33.0	1970
Nigeria	Ibadan	75.0	1971
Sudan	Port Sudan	55.0	1971
Zambia	Lusaka	48.0	1969
North-Africa and Middle East:			
Iraq	Baghdad	29.0	1965
Morocco	Casablanca	70.0	1971
Turkey	Istanbul	40.0	1970
Low-income Asia:			
India	Calcutta	33.0	1971
	Delhi	30.0	1971
Pakistan	Karachi	37.0	1988
Sri Lanka	Colombo	43.0	1968
Middle-income Asia:			
Korea	Busana	31.0	1970
	Seoul	30.0	1970
Malaysia	Kuala Lumpur	37.0	1971
Philippines	Manila	35.0	1972
Latin America and Caribbean:			
Brazil	Brasilia	41.0	1970
Brazil	Recife	50.0	1970
Brazil	Rio de Janeiro	30.0	1970
Colombia	Bogota	60.0	1969
	Buenaventura	80.0	1969
Mexico	Mexico City	46.0	1970
Peru	Chimbote	67.0	1970
	Lima	40.0	1970
Venezuela	Barquisimeto	41.0	1969
	Maracaibo	50.0	1969

Source: Linn, Johannes F. (1984), with some modifications.

Physical.

The population explosion has generated many physical problems, related to:

1. inadequate supply of housing.
2. pollution of the environment especially air and water.
3. transportation and communication systems.
4. supply of clean water and nutritious food.
5. sanitation and sewerage systems.

Social.

1. increase in crime.
2. growth in use of drugs.
3. basic education and primary health care.

Dentler (1977) refers to one of the major problems of the developing countries: "In the developing countries, in Asia, in Africa and Latin America the major problem is to be found in the way in which the explosive population abstracts economic development and therefore higher levels of living. Moreover, the people may be faced with the problems of actual survival."

Economic.

1. unemployment and underemployment.
2. inadequate economic development.

1.013 Given the conditions of poverty in most Third World countries, it is difficult to see what alternative could effectively replace them. Perhaps it is beyond the capabilities of most Third World Governments to devise and implement policies which would, for instance, rehouse all the poor people of Pakistan, India, Egypt, Indonesia or Thailand in entirely new and more sanitary living environments. These large countries have reached a stage, where the thought of a gigantic metropolis full of poor people is an appalling prospect, but it has not yet inspired an all-out search for solutions. Hence in order to improve the living and working environments in the large cities particularly in metropolitan areas, the developing nations would have:

- 1) to formulate and implement strategies and policies to meet the needs for improvement of existing housing, services and resources of the urban poor and,
- 2) to consider the demands for more decent shelter, adequate services and job opportunities created by increase in the urban population, and to take necessary actions in order to meet these demands.

Major Issues of Concern to the Research.

1.014 It is widely recognised that urbanisation and industrialisation are strong forces which are now transforming the Third World's environments. The continual upward spiral of urban population (due to natural growth and migration) in volume and density, has affected patterns of growth in most cities of the Third World, associated with the creation of disorderly and unhealthy living environments. This phenomenon raises a basic question. Have existing cities failed to offer the kind of environment that can easily be adapted by new migrants, or is it the migrants who can not adapt to live in such an environment?

1.015 The key issue may come down to one of urban settlement patterns and forms which are most suitable within the general conditions and constraints of Third World resources, particularly of Pakistan. It has already been the subject of intensive debate during the United Nation's 1976 conference on human settlements. The declaration and recommendations made by that conference have urged Third World nations to develop and adopt more comprehensive strategies in settlement planning to cope with their urbanisation problems on National, Regional, and Local levels. The declaration of these principles from the conference states, among other things, that " The improvement of the quality of life of human beings is the first and most important objective of every human settlement policy. These policies must

facilitate the rapid and continuous improvement in the quality of life of all people, beginning with the satisfaction of the basic needs of food, shelter, clean water, employment, health, education, training and social security without any discrimination...In striving to achieve this objective, priority must be given to the needs of the most disadvantaged people." United Nations conference on human settlement, Vancouver, Canada (1976- p.p 2-9).

1.016 Several related issues or sub-issues can be identified in the declaration made by the United Nations:

Housing.

The rate of population growth predicts a gigantic increase in demand for housing in the metropolitan areas of developing countries. It is clear, that with (present) traditional methods of construction, limited financial resources and high costs of urban land, Third World nations will not be able to meet this demand for shelter.

Urban development.

It is important to realise that, in addition to overcrowding, urban centres are anonymous, hostile and alien environments to the rural migrants. To live in such an environment but to be denied access to basic urban services and facilities is hampering the process of behavioural change needed for the appropriate and smooth assimilation of these migrants into the urban life style.

Employment.

Though the large cities of the Third World have many industries in and around them, they are unable to offer job opportunities on a large scale for the skilled and unskilled people who have migrated to the cities in search of a better living environment and employment. The question is whether the existing cities of the Third World countries will be able to carry these further burdens, since even their present infrastructure systems, housing supplies and social services have failed to keep up with present demands and are too expensive for the majority of poor people in the cities.

1.017 It is in this context that it is proposed to investigate the unique nature of the urban physical environment and the factors which affect the socio-economic balance. The purpose of this study, however, is to solve the problems of the poor inhabitants of congested existing urban areas. Hence the problems of existing low-income urban areas are considered as the basis for investigation with a view to suggesting an alternative and effective solution to the planners for solving these problems, in the process of urbanisation and modernisation in the Third World as a whole, and particularly in Pakistan.

Background of Study.

1.018 This study represents a search for alternative

approaches to the planning and design of metropolitan environments in developing countries and particularly on the creation of new settlement models for Pakistan. The essential focus is on settlement and particularly on those problems affecting the poor majority of the population. It is concerned with urban development which is one of the critical issues underlying the urbanisation process now taking place in most of the Third World countries. It will present an analysis of the major settlement problems and issues in the urban areas of the Third World and of the manner in which planning has attempted to solve these problems. This assessment is designed to provide an overview outlining the dynamics of the urban situation in the Third World; this will form the basis for this search for an appropriate alternative form of settlement planning applicable in developing countries generally, and in the metropolitan areas of Pakistan in particular.

Objectives of Study.

1.019 The study of low-income settlements and slum congestion in the cities of developing countries and metropolitan areas of Pakistan indicates that the inhabitants of urban areas are facing the problem of unhealthy residential and working environments, due to lack of housing and infrastructural facilities, unemployment and underemployment. There is still an urgent need for further

studies of this problem and to provide a practicable solution to overcome it.

1.020 The present metropolitan cities of Pakistan ought to be dealt with in a manner which would prevent them from growing into megalopoles, but rather enable them to function more effectively and economically at their present levels. In order to understand in detail the nature of the problem, its causes and effects on the process of development in the metropolitan areas, this study / research intends to collect and analyse the information about the katchi abadis or slums in Pakistan, Karachi and particularly Lyari and Korangi two large katchi abadis of Karachi Metropolis.

1.021 Therefore, it is expected that the findings from two major slum areas (case study) and information about other slum areas of Karachi and of other cities will give a true picture of the slum problem in Pakistan; also that an analysis of these findings and of the policies applied by Third World countries, and Pakistan in particular, to reduce the problem will enable the author to formulate new policy recommendations as a practical effective solution for the problem. Hence this study is concerned with the search for appropriate urban forms suitable to the social, economic political and cultural environments of developing countries and Pakistan in particular.

1.022 Thus this research focuses on:

- 1) Deliberate studies of existing physical, social, economic and historical aspects of slum formation in metropolitan areas.
- 2) critical study and evaluation of policies adopted by the developing countries and Pakistan in particular for overcoming the problems of low income settlements.
- 3) analysis of data collected from two katchi abadis in Karachi metropolitan area.
- 4) In the light of Objectives 1 to 3, the formulation of a set of appropriate strategies and optimum policies which would be applicable within the context of Pakistan. Some generalisations for large cities of other developing countries having similar characteristics will be made.

Scope of Study.

1.023 Although this study will confine itself basically to the developing countries, some aspects of planning activities and experience in developed countries will be reviewed and discussed when a comparison is unavoidable or when it is necessary in order to help clarify or support the thesis. An understanding and awareness of the other factors that may have implications for the defined problems is essential, as a thorough understanding of the definitions of

these relevant factors will provide a better critical framework for selecting and analysing pertinent material. For this reason, though this investigation has a town planning focus, its scope will not be strictly limited to urban planning, but will extend where necessary to search for other relevant information which may be available in other fields of activity. Bor (1985) suggests, " One of the most useful contributions which we planners, architects and engineers from developed countries can make to developing countries is to help them to avoid the often tragic mistakes which we have made in our cities."

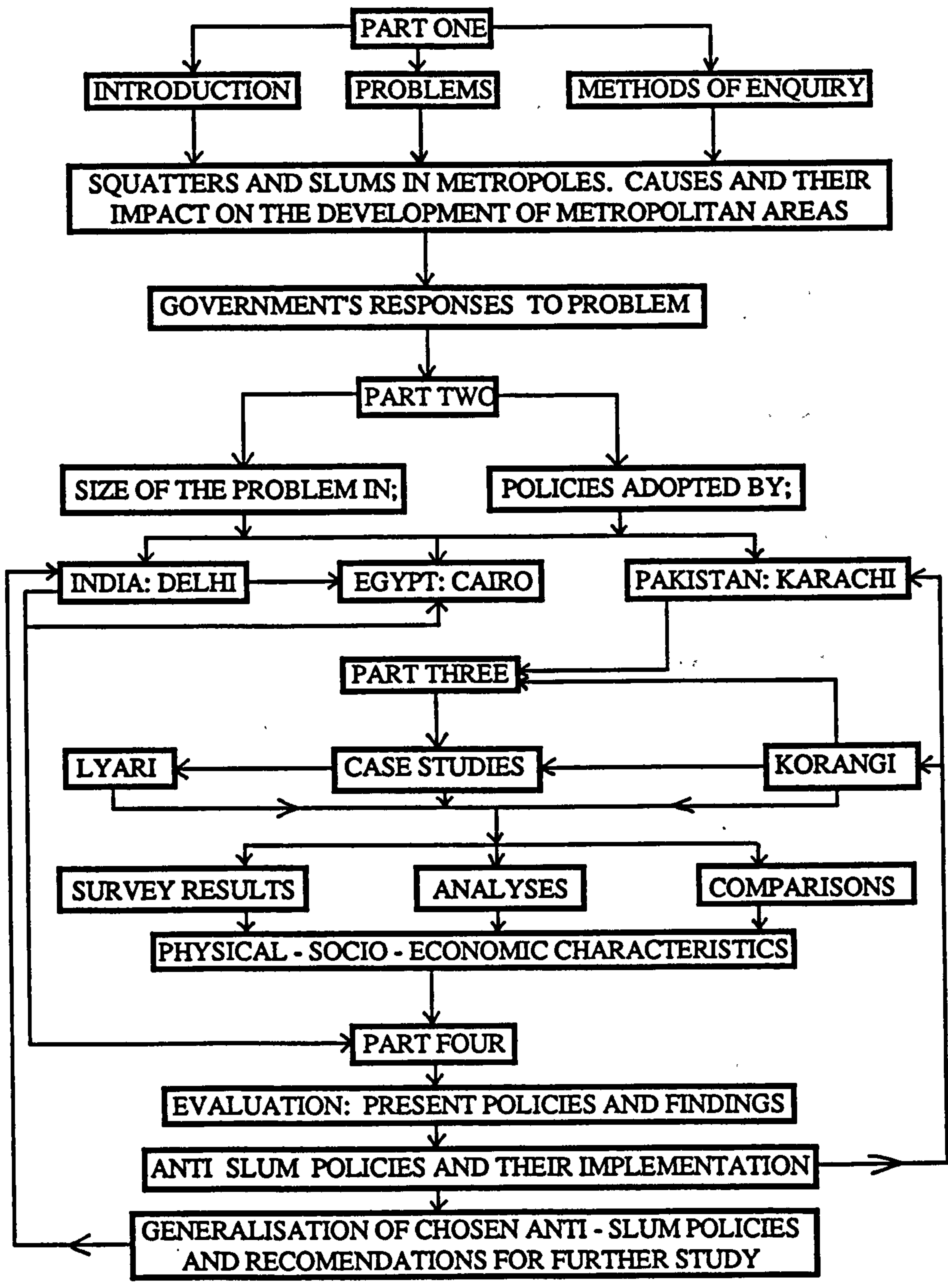
Organisation of the Study.

1.024 The research is designed into four major parts, each divided into further sub-headings. (see Figure 1.1) Part 1 of the study, contained in Chapters 1 and 2, is concerned with review of literature. This part of the study contains various subsidiary-parts e.g. introduction, identification of the problem, objectives of study, design of the research method, exploring the nature and process of slum formation, its causes and effects on environments in metropolitan areas of the developing countries, classification and discussion about slums. This part also contains review of policies and programmes adapted by the developing nations for solving the identified problems.

1.025 Part 2 (in Chapters 3, 4 and 5) is concerned with an examination of the situation in three developing countries (India, Egypt and Pakistan) and their capital cities in the light of information presented in Part 1. This part is also concerned with a critical description of what policies (at National and Local levels) were aimed at tackling the problem, and with defining what the actual achievements were. In addition this part examines and explores the structure, functions of planning agencies, and existing management system in Pakistan particularly in Karachi.

1.026 Part 3 (in Chapters 6 and 7) contains the presentation of the survey results and evaluation of the findings; and also reveals a variety of problems and portrays the priorities of the slum dwellers residing in the two case study areas viz. Lyari and Korangi in Karachi. This part also presents a comparison of situation between two areas and, the areas with slums in Karachi and other cities of Pakistan.

1.027 Part 4 (in Chapters 8 and 9) focuses on Objective 4 i.e the formulation of a set of policy or of strategies and their implementation in Pakistan. This part also aims to generalise these strategies and a set of policies for their implementation in large cities of the developing countries and suggests areas for further research.



General Approach and Selected Methodology for Investigation

1.028 Very limited literature and appropriately recorded empirical evidence on the subject matter exist, especially relating to the developing countries. There are, however, various sources, mostly on western planning, which contain pieces of important information. Because of the severity of the problem and the dual objectives of measurement and explanation, the research methodology requires more than one approach. Thus it is vital to go beyond published literature, hence research includes fieldwork enquiries. For this purpose, the choice of case study method is important for investigation and generalisation of data for the subject and for the discovery of new insights.

1.029 To achieve Objectives 1 and 2 of this study i.e an understanding of the nature of the problem, processes of development of low income settlements and slum formation in metropolitan areas and for obtaining information about the policies applied in the developing countries for overcoming the problem, a review of literature on the theory of slum formation and approaches to the problem was done before proceeding to collect primary data in selected katchi abadis of Metropolitan Karachi. This review is covered in Parts 1 and 2 of this study.

1.030 To achieve Objective 3, (analysis of collected information about the katchi abadis in Karachi Metropolitan

Area), a field survey was conducted from November 1, 1988 to February 10, 1989. The field work was concentrated on a examination of housing and land use patterns in the two case study areas e.g. Lyari and Korangi of Karachi Metropolitan Area. The Study of these two katchi abadis examines and evaluates the achievements to date of development projects as postulated in the development programmes for Karachi, in terms of physical planning and socio-economic balance. In doing so the study addresses the following items:

1. land use: area covered by total katchi abadis in city; number of houses, density per sq km.
2. house structure: size of plot; number of rooms; number of bathrooms, and present value of house.
3. family size: number in family; age, sex, and education.
4. identity of residents: place of origin, period of migration and procuring of accommodation on their arrival.
5. economic activity: place of work; mode of journey; source of income; monthly total income; actual monthly income and expenditure of family members.
6. categorisation of the facilities provided by the government (basic infrastructure, education and health)
7. the extent to which the projects have been implemented as compared to the original objectives of development plans.

8. proportion of resident labour force procuring jobs locally.

9. response of households with respect to their participation and co-operation in the execution of projects.

10. degree of satisfaction of residents with current state of infrastructural and economic development within areas.

11. problems and constraints encountered by the organisation concerned in the implementation of the development projects.

12. perception of the residents in selected katchi abadis towards the government's policies and programmes.

Information relevant to the above items, gathered in Karachi, was brought back to the Centre for Planning in order to analyse and evaluate existing problems of Areas 1 and 2 within metropolitan Karachi. The findings of this empirical study are presented in Part 3.

1.031 To achieve Objective 4, i.e. formulation of preferred policies and methods of implementation for Pakistan and their applicability in the Developing Countries, a review of literature on the theory of urban development had been carried out. Policies applied at the federal and local levels for solving the problems of the urban poor shall be reconsidered in relation to the findings of empirical research, and a set of policies and strategies will be suggested which could be tested and applied within the

context of Pakistan. These policies will deal with both slum improvement and human settlement patterns.

1.032 In order to suggest the policies and an organisation, experience in both developed and developing countries is reviewed. This experience has been looked at with special reference to the following aspects:

1. land use: residential, commercial, institutional, and recreational.
2. housing: provision of better dwellings, size of dwelling, number of houses to be provided and type of low income housing as an element for improving the life of the urban poor living in katchi abadis.
3. improvement in physical environment: basic services and infrastructural facilities to be improved or provided.
4. employment: type of industry, commerce; resources to be provided in the area of settlement in order to solve problem of unemployment (poverty).
5. provision of social and recreational needs of community.
6. to balance the socio-economic status of the urban poor.

Detailed Methodological Approach to Investigate Problem.

1.033 The main components of the method adopted for collection of data from selected katchi abadis for the identification and analysis of the slum as the principal problem of Karachi Metropolitan Area are shown in Fig. 1.2.

The approach consists of two main phases. First, an examination of the housing and land use pattern in the two selected areas, viz 1. Lyari and 2. Korangi; second, visits to Public Organisations, i.e. Local Government Authorities.

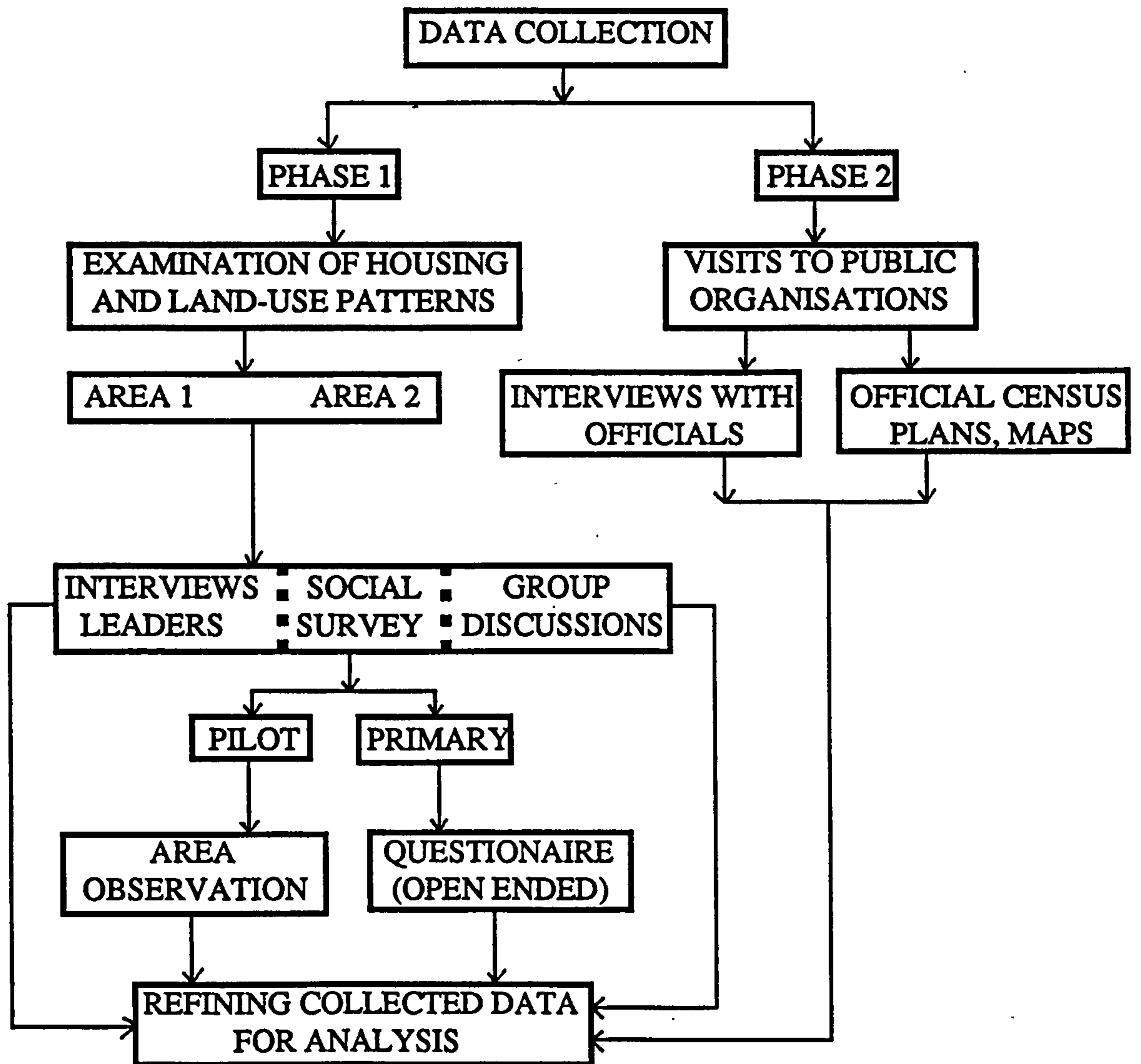
1.034 Phase 1 is sub-divided into:

- i) interviews with area leaders;
- ii) social survey; and
- iii) group discussions in study areas.

The social survey in each area was conducted in two stages, i.e. pilot survey and primary survey. The pilot survey consisted of area observation and preliminary data related to the physical environment and socio-economic conditions of the people of that particular area. The primary data section consisted of an open-ended questionnaire, to obtain more accurate information from a specific number (selected sample) of people.

1.035 The second phase of fieldwork was concentrated on interviews with decision takers, who are engaged directly or indirectly with the areas of study, and on collection of published and unpublished material relevant to the problem, together with development programmes to overcome it and other valuable documents.

Figure 1.2 METHODOLOGICAL APPROACH FOR COLLECTION OF DATA ABOUT SLUMS AS THE PRINCIPAL URBAN PROBLEM IN KARACHI



The terms used in figure 1.2 (Methodological Approach) are explained as follows.

Examination of Housing, Land use Patterns.

1.036 The purpose of this phase of the study i.e an examination of two selected areas, was in the main to recognise the dynamic and true picture of slum conditions that each area had developed, the original forms of land tenure, the total population each area had accommodated and the degree of involvement of the government within these areas. The collected information or data depends upon the researcher's personal observations.

Interviews With Leaders.

1.037 Since the leaders in each local area are the key figures in the communities, leaders from selected areas were contacted for detailed information about the areas concerned and as an introduction to the residents of the area. The gathered information relates to the development process in each area, conflicts with Local Authority, role of Local Authority, recent attitude of the Government towards the problem and the degree of satisfaction of the inhabitants with the current state of infrastructural and economic development in the area. The term 'leader' means elected or selected executives of social welfare organisations,

representatives of Town Committee, Municipal Committee, and Metropolitan Corporation.

1.038 After arrival in the selected areas, it was learnt that the 'representatives' were not working for the development of the area, hence, the people were against them. Therefore this researcher decided to arrange meetings with the key persons from local welfare organisations.

Social Survey.

1.039 This part of Phase 1 was the key element in the field study for collecting data on slum existence and analysis. The survey was completed in two stages, pilot survey and primary survey. The aim of the survey was to obtain detailed information about the identity of residents e.g. origins and migration backgrounds, socio-economic characteristics, political attitudes and responses of the households with respect to their participation and co-operation in the projects.

1.040 The following factors were involved in completing the survey:

land use, e.g. size of plot, either owned or leased, legally or illegally settled;

family size, e.g. number of members in family, age, sex;

housing and residential history, e.g. type of house, number of bedrooms in house, number of bathrooms and latrines per house; material used and cost of house;

levels of education, e.g. educational qualification of head and other members of family, number of children going to primary and secondary schools, number of adult members attending college or university;

employment, e.g. proportion of resident labour force procuring job locally;

economic activity, e.g. type of occupation, place of work, mode of journey, sources of income, actual monthly income and expenditure of family members.

1.041 In addition to the above collected information, the author made a detailed investigation into participation and co-operation of the residents in the process of preparation and execution of plans for development in visited areas as follows:

What were their (residents') responses towards the changing attitudes of organisations relative to katchi abadis improvement policies, land legislation and planning control?

What are the priorities of residents in selected (case study) katchi abadis of Karachi metropolitan area?

Pilot Survey.

1.042 This survey consisted of an observation of the area. During the survey of the area, three types of information was gathered, an initial evaluation of site location; outline assessment of the site, e.g. total number of houses, total area covered by houses, open space, total population of area, population density; and social life of residents. This part of the study involved a personal visit to the area and finding the factors mentioned on the map of area.

Primary Survey.

1.043 The primary survey was designed in such a way that detailed information could be gathered, which could provide a basis for formulating policies not only for the physical improvement of the environment, but also to contribute further information about the extent to which the development projects have been implemented as compared to the original objectives of plans. Secondly, it was intended to contribute a wide range of knowledge relating to the existence of katchi abadis as a principal problem in Karachi Metropolitan Area. Thirdly, it could be considered a basis for understanding density of the problem, the degree of the inhabitants' satisfaction and their attitude and philosophy towards accommodating themselves in such unhealthy environments. Finally, it would help in assessing the willingness of residents (priorities of residents for future development of areas) to have healthier and better living

and working environments. Thus it was considered the key to understanding and interpreting the operation of housing, socio-economic and physical priorities of residents in two different katchi abadis in metropolitan area.

1.044 To carry out the primary survey, a sample was selected according to the following considerations. It would cover a variety of the residents, and would represent a proportion of the population according to each sub-area density. The questionnaire was then filled in by interviewing the selected sample of households. (see methods of Area and Sampling selection in Chapter 6)

Group Discussions.

1.045 This part of Phase 1 involved meetings and gatherings with the people of that particular area, in which the survey work was conducted. The meetings with residents of the particular area were arranged for Fridays in Mosques, where the religious leaders and more people were contacted, to discuss the problem, in detail.

Visits to Public Organisations.

1.046 This Phase 2 of the study concentrated on interviews with officials and collection of published and unpublished material. The information was collected by discussing matters with decision takers, who are engaged directly or indirectly with katchi abadis in the past or at present. The

aim was to identify the different involvement of these bodies and how their decisions affected the different mechanisms and the population within katchi abadis. It was carried out with private and in particular with public agencies to acquire a comprehensive view of both, the methods of providing the main types of servicing functions, and the attitudes of these agencies towards katchi abadis.

1.047 At Government level interviews were concentrated on different legislations e.g process of land tenure, legalisation of plots, the official policies for housing low-income groups and the involvement of public agencies in improving the existing conditions of katchi abadis. The discussions also took place with administrative and teaching staff at the University of Karachi, to identify their involvement and contribution, as professionals, in tackling the problems of katchi abadis.

1.048 In addition to the aforementioned, valuable documents were collected from public agencies, as well as the most recent information about census, surveys, maps, and plans. Photographs of places of residence and work, modes of travel, present infrastructure, social services and petty jobs were taken in visited katchi abadis. Also photographs of katchi abadis which are located near railway, on bed of river and under bridges were taken to measure intensity of problem in Karachi.

Conclusion.

1.049 In this chapter, the author has identified that due to accelerated urbanisation mainly concentrated in most large cities of the Third World, the urban residents have the advantage of proximity to industrial and other resources which are part of the metropolitan environment. By contrast, the rural residents have little access to these tools of modernisation. In turn this concentration has encouraged an ever-increasing movement of people from the rural to urban areas. Due to increase in the urban population, there is shortage of adequate housing, infrastructure and basic services to settle such large numbers of urban residents. The urban poor, lacking as they do particular job skills, are only marginally within the labour market. This in turn has resulted in a big gap between those who are part of that environment (formal sector) and those who cannot participate or are left behind.

1.050 Those who are left behind (due to inequalities) have created distinct living and working environments in large urban areas. These distinct environments appear in the form of low-income settlements which lack decent housing, adequate infrastructure, basic services and job opportunities for the people living in these areas, no matter whether they are skilled or unskilled. A few years after their establishment, in addition to the factors mentioned above, due to overcrowding, insanitary conditions,

lack of educational and health services, and existence of poverty, these settlements are transformed into slums in the metropolitan areas.

1.051 To explore and evaluate the nature of the problem, process, causes and effects of slums on metropolitan environment, policies and programmes adopted and applied by the developing nations to solve the problem in developing countries, particularly in Karachi Pakistan, the author has proposed a general approach and a particular method of inquiry. Thus the author intends to collect and analyse information about the problem of katchi abadis in Karachi Pakistan. In view of the critical analysis of conditions and evaluation of policies applied to solve the problem and of findings from two selected katchi abadis, the author makes recommendations for alleviating the problems of two case study areas- Lyari and Korangi in Karachi metropolis. On the basis of the validity of these policies in two study areas, the author suggests the application of these policies for alleviating the problems of other Katchi Abadis in the metropolitan areas of Pakistan.

1.052 The following Chapter 2 shall explore and discuss the slums, the process by which they are formed, causes and effects on metropolitan environment. This Chapter will also explain and criticise the Government's response- programmes and techniques applied by the developing countries to solve the problems of low-income housing areas at national level.

Chapter Two. Process Of Slum Formation in Metropolitan Areas, And Government's Response To The Problem.

Introduction.

2.001 Human history has seen an endless struggle for control of the earth's surface and primitive man used his initiative and natural resources to create his own sheltered environment. The problems of human settlements are universal but their size and intensity vary from country to country. The patterns and problems of human settlement in the Third World differ entirely from those of developed nations. Hence policies and programmes required to solve these problems in developing countries will be different than those applied in developed countries.

Nature of Low-income Settlements in Urban Areas.

2.002 The rapid growth of population coupled with industrialisation and accelerated urbanisation has posed a challenge to the planning authorities in developing countries. The problem of quality housing in the developing countries is very alarming, particularly in the large cities where the urban poor have built their own houses and created poor settlements.

2.003 The majority of newcomer households who are settled in low-income settlements have no toilet facilities at all, not

even a public or shared toilet, they use open spaces such as riverbeds, hills, railway and under bridges. The inadequacy of sanitation, infrastructure and other public services give rise to unhygienic conditions and pollutes the metropolitan environment. In addition to the above, characteristics such as alcoholism, drug addiction, sickness and disease also are observed in low-income settlements of developing countries.

2.004 The most serious and immediate problem for millions of people in the large cities is poverty. The urban poor are absorbed in the marginal sectors of urban economy and have irregular and minimal income that is insufficient for food, clothing and other basic needs of life. Hence with low purchasing power they cannot afford to buy or rent houses in approved housing schemes. They have no option other than to search for cheap shelter- to occupy a piece of vacant land and erect their own houses of low quality, and become members of the poor community in the urban areas.

2.005 In Indian cities the existence of 'street sleepers' with a mobile house who sleep in streets, doorways and under bridges etc is in addition to those who illegally obtain land and erect 'bustees' or 'tintowns'. These are found in the centres of the cities or on the periphery of the urban areas. They are usually one-roomed 'shacks' at very high densities without any amenities. In addition to low income settlements mentioned above, about 30% to 40% people of India live in slums (Thorns, D. C. 1976). According to

Saleem (1983) "nearly 2 million people or 37 percent of Karachi's population live in slums, commonly referred to as katchi abadis."

Unauthorised Settlements in the View of Other Researchers.

2.006 A fresh view of unauthorised settlements was taken in the early 1960s with respect to their housing situation. Abrams, 1964, Turner, 1967 and Mangin, 1967 wrote that, "squatter settlements represent a solution to the complex problem of rapid urbanisation and migration, combined with a housing shortage." Mangin, 1967 showed that squatter settlements make several contributions to national development. These settlements provide residents with a degree of security and opportunities to improve their living conditions. They offer people employment, both full-time and part-time, and they aid in the growth of markets.

2.007 With regard to social relationship and organisations that the urban poor set up, according to Mangin their strong social organisation provides a degree of support in times of crisis; they also help the squatters to participate in city and material life. Finally, Mangin viewed squatter settlements as a 'solution to the lack of cheap housing available to the urban poor.' In Turner's opinion the squatters are socially organised mostly through 'squatter associations'. Silberstein (1969) concluded that "the structure of social relations within squatting areas was

functional, so that co-operation among the residents enhanced their survival."

2.008 Because these organisations receive support from the political parties hence, Thomas, T. (1969) says "therefore, governments intervened by way of political parties to co-opt or control squatter population." with regard to response from governments to the squatter settlements, according to Peattie and Aldrete-Hass (1981) "in short the conventional view of squatters has been changed, the professionals and governments look at squatters from a positive angle, as a way of increasing housing stock within the Third World."

Slums in the Metropolitan Areas.

2.009 Regarding slums as the principal problem of urban areas associated with rapid population, Abrams (1964) says "most slums are in the industrial cities, many are found in mining towns and farm areas. Slums flourish in many environments, punctuating the cemeteries and the side roads near new apartment houses in Karachi. Slums also appear as holes in ancient caves near Rawalpindi and Southern Spain."

2.010 Considering characteristics of the urban slums such as lack of decent housing, inadequate infrastructural facilities, lack of sanitation and health services, improper disposal of sewage, and inequality of income sources, Blair (1974) says "the term slum in 1800s was used for squalid

housing in densely populated districts of the industrial cities but today the word slum describes poor housing and social conditions of every kind." Lloyd, P. (1979) explains that "the people living in these slums are mostly recent immigrants. The urban explosion will continue; and most of the migrants and their children in turn will become city dwellers."

Classification and Categorisation of Slums.

2.011 If one studies the list of definitions of slums given by different researchers and scholars, it is seen to be a really difficult task to select a suitable definition of slums. Some of the definitions refer to only the first category i.e. 'classic slum' and others refer to the second category i.e 'younger slum'. For the purpose of this study it is necessary to select a definition that embraces both categories.

2.012 Charles (1962) divides the slum into 'the slum of hope' and 'the slum of despair' Charles, by the use of 'slum of hope' means " the quality of psychological response by the inhabitant of a slum who tries to improve his status", and by the same token 'despair' denotes "a lack of intention of any attempt to change status". Charles has divided the two categories on the basis of a response towards the psychological. In Charles's view there are people of two

kinds- those who try for improvement to their life status and others are those who are happy with what they have got and never struggle for change in their lives. In author's view being 'human', every one not only wishes but wants and struggles to bring change to his status. Actually, it depends on how much one tries, in what way one tries, and what sources one has to change one's status. How much he / she himself / herself initiates and how much the others (having better status) encourage and help the one who struggles to better himself / herself- 'change is the law of nature'.

2.013 Emery (1963) says De Maisonneul distinguishes between 'the slum' (meaning classic slum) and 'Shanty town' (meaning younger slum). In the view of De Maisonneul 'the slum' "houses the urban failure, the men overcome and rejected by the big city." Whereas shanty towns "are an attempt made by the bold and gallant men attracted by the best and the worst in the big city." In distinguishing between the two categories, De Maisonneul has clearly combined both by fixing certain characteristics of the inhabitants to the type of slum. He has explicitly excluded the classic slum, located mostly in the central parts of the city.

2.014 On the other hand Herbert (1971) classifies slum into 'entry area' and 'area populated by social rejects'. In the view of Herbert, "in entry area the newcomers to the city

try to adapt their non-urban institutions and cultures to the urban milieu, this is 'the urban village' whereas " the area populated by social rejects, are in legal conditions, this may be called 'urban jungle'. However, Herbert (1962) in one other place has given the definition of slum and has especially emphasised that the residential areas should be defined as slum only " if they have been proven to be physically, socially or emotionally harmful to their residents or to the larger community." From the two definitions of slum given by Herbert, it is notable that Herbert himself strongly doubts the causal relationship between slum condition and social or emotional harm to residents or the larger community. According to the definition of slum given by Herbert, considering emotional harm, even houses located in the rich areas of the city and near the airport would have to be called slums due to the disturbance caused by air traffic. Therefore, except for emotional harm, physical and social harm are features of most of the slums commonly found in the western world.

2.015 Seeley (1971) characterises the population (people living in slums not slum area) with respect to physical, social, and economic development by two major differences. Seely differentiates between " necessities- opportunities and permanence- change." Further Seely states that " for some, slums represent a set of opportunities not available as easily or at all elsewhere- for others the slum

represents a set of necessities to which despite their wants, they have been reduced." The spectrum 'permanence-change' probably partly matches the two broad categories of slum described above. Here, it seems worthwhile to define both groups in the terms of physical conditions, (physical deterioration that exists in the above-mentioned broad group) otherwise the slums characterised by different researchers (hope-despair, urban villages-urban jungles, necessities-opportunities, and permanence-change) are confusing.

2.016 In the opinion of Lloyd (1979) " within each such area the variety in the characteristics of individual inhabitants is often equally great- the recently arrived and the long established, the relatively successful and despairing." In Lloyd's view the slums of hope house those migrants " who feel that they have successfully adapted to city life and still aspire to a better future for themselves and for their children"; whereas, those " who can not cope, who have lost the will to try gravitate to the slums of despair."

Discussion.

2.017 Let us discuss the definitions given by researchers Charles, De Maisonseul, Herbert, Lloyd, and Seely. There is an underlying harmony between the views of these writers but each has a somewhat different perspective. Slums can be

divided allocating the degree of improvement to the existing physical conditions and legality of tenure. The first type of slum e.g. 'slums of hope', 'urban villages', 'opportunities' and 'successful' are always in a dynamic process of development. The second type e.g. 'slums of despair', 'urban jungles', 'necessities' and 'failure' are in a static process of development. Charles, Herbert, Seely and certainly Lloyd in the 'slum of hope', 'urban villages', and 'successful' have included the classic slums mostly located in or nearer the central parts of the city. Whereas, De Maisonseul, has excluded the classic slum from the definition of slum.

Apart from this their definitions almost coincide. Further, Charles explains, "slums of hope are self-eliminating", but in the case of classic slums this self-elimination will almost always take the form of the moving by the inhabitants. In the case of autonomous slums called 'young slums' this self-elimination involves the improvement of the slum to such an extent that it could not be called a slum anymore.

2.018 After considering definitions and discussing the characteristics of slums, one can reach the conclusion that, 'classic slum' is characterised by deterioration of housing, lack of physical planning and other features relevant to it, which make the living and working environment unhealthy for families living in it; whereas, 'unauthorised settlements' or younger slums are illegally developed residential areas.

Some writers (Turner, Abrams, Mangin) include a possibility of semi-legal status.

2.019 In view of the author the first type is a 'classic slum', while the other is a 'younger slum'. However, the people living in both types (slums of hope and slums of despair) belong to poor families who hope and aspire to avail themselves of any opportunities to achieve the basic necessities of satisfactory life as an urban dweller. Hence this study will concern itself with the problems of the urban poor, and policies and approaches adopted by the Third World countries and the Government of Pakistan in particular to reduce these problems in metropolitan areas and in Lyari and Korangi- two katchi abadis in Karachi. (See Chapters 3 and 4)

Process of Slum Formation: Causes, Means of Migration and Ways of Invasion and Effects of Slums on Development in the Metropolitan Areas.

Causes of Slum Formation.

2.020 The main objective of this section is to explore the antecedents and sequence of events involved in the formation of slums in the Metropolitan areas of the Third World. This section will explain the different factors which are normally considered to be the causes of slum formation. The author shall also try to explain the following questions.

How is a slum formed?

Who takes the major part in the formation of a slum?

Who are they and where do they come from?

Why do they come to the urban areas?

2.021 Generally, the following factors are considered to be the main causes of slum formation in metropolitan areas:

- 1) inequality of resources between rural and urban areas.
- 2) inadequate provision of infrastructural facilities in the suburbs of Metropolitan areas
- 3) an increase in the rate of population growth of the city concerned
- 4) an increase in rural-urban migration.

2.022 The migration takes place because the rural-urban migrants and the poor from the suburbs are in search of better education; leisure; recreation; and health services, better accommodation and better sources of income. Due to industrialisation, modernisation, and urbanisation the cities in developing countries have developed in both spatial and economic terms. They have provided better chances to offer job opportunities at a large scale. It has also been observed that the large cities of the Third World have remained a magnet in attracting people from various parts of the country. The rural migrants move to the city in search of better shelter and employment. In the opinion of

Gorynski (1984) " the situation in developing countries is very different; here migration is due not so much to the growing efficiency of agricultural production, but simply due to rural overpopulation and the expectation of finding some new source of income."

2.023 The migrants, who move to the large cities for economic reasons, have not enough money to purchase a house in the central urban areas, hence some of them rent a house and others squat and occupy vacant land and erect their own shelters, a sort of unauthorised and cheap solution to housing demand. Saleem (1983) shares his experience on the formation of a slum. He observes that, " The families who are unable to secure accommodation in officially sponsored housing projects resort to squatting which eventually leads to the formation of slums, less expensive but unauthorised solution." But in the view of Thorns (1976), relative to this type of settlement "is their need for accommodation and work to support their families which brings the families to the city, and then the shortage of accommodation is the major reason for their forcible invasion of land and erection of shelters."

2.024 The developing countries have formidable housing problems which have arisen according to Abu Loghud (1976) " through twin factors of rural to urban migration and the increased rate of population growth within the city itself." Thorns (1976) gives his valuable comments on the attraction

of large cities and the method the migrants adopt to migrate from rural to urban areas, and the problems that the generally poor, rural migrants face when they arrive in the cities. He comments " the pace of urbanisation and the lack of permanent housing available for the unskilled rural migrant often has led to the creation of squatting housing or it results in the poor having to find shelter in overcrowded housing in slums or shanty towns on the fringe of the metropolis where they are often without transportation to the few places of employment generally in the centre of the metropolis."

Means of Migration and Ways of Invading Land in Cities.

2.025 The previous subsection has provided us with information about the causes due to which rural residents migrate from the place of their origin. This subsection will be concerned with the different systems of migration, ways in which the urban poor invade the land, squat on it and build their houses illegally. Dwellings constructed illegally on vacant land without considering physical, social, and economic planning, play an important role in the formation of slums. This section will explain also the ways in which squatters organise themselves to put pressure on authorities so as to obtain (a) security of title to land and (b) services. The author shall discuss the following questions.

How they (migrants) move from place to place?

Where do migrants live in urban areas on arrival?

How do they invade urban land?

What type of urban land do they invade?

How do they organise themselves?

2.026 Migration takes place in various ways. In many cases it is not just a once-and-for-all move, but rather a number of moves over a lifetime. Guglar (1982) divides the system of rural-urban migration into the following three patterns:

- a) temporary migration of men separated from their families,
- b) family migration to urban areas followed by return to the community of origin, and
- c) permanent establishment of urban family household.

In some cases the migrants settle initially in small towns and try to establish their economy there so that subsequently they may fit themselves for the lifestyle and costs of housing in metropolitan areas. The purpose, however, is to improve living standards and obtain employment in high-waged sectors. Gorynski (1984) has observed " in many cases migration takes place in two stages: from the countryside to small town and then from small town to the large cities."

2.027 The urban poor with low incomes, either migrated or inherently settled in poor urban areas, are always in search of better living standards. In order to improve their living and working standards they initially purchase or rent houses

in poor settlements, or they settle themselves on whatever type of land is found to be available in the city, which sometimes involves buying some form of tenure right. They move into the city like rolling stones to fit themselves into urban life. According to Abrams (1964) "in fact the image of squatter's locations is that, they are usually sited on riverbanks, marshlands, steep slopes and hillsides, railways and road rights of way."

2.028 Within this context it is interesting to consider how the poor acquire land for their settlement. Baross (1983) says " While high and middle-income groups occupy the better land in the city, the worst is left to accommodate low and lowest-income groups." The poor invade land either individually or in the form of groups, by organised or unorganised processes common in Karachi (see Ch.4). Mangin (1970) says "there are many ways in which individuals or groups invade the land within urban areas. The most important are, the organised squatter invasions by relatively large groups, a phenomenon mostly found in Latin America." But one other way in which the poor invade urban land individually or in small groups is called unorganised invasion. Smith (1987) says "unorganised invasion by individuals or small groups occurs widely throughout the Third World."

2.029 In addition to the above organised and unorganised invasions there is semi-organised invasion, which depends on

the political and economic situation of the country. Gilbert (1981) says, "semi-organised invasion through a co-operation between the official bodies and the squatter depends upon the political and economic situation of a country." The form of invasion differs from one country to another- not only between nations but even between cities within the same country.

2.030 The urban poor invade urban land by illegal or semi-legal ways. In most of the cities of the Third World, the urban poor invade public land illegally to get security of status. Angel (1983) says " most of the successes of the urban poor in gaining access to land in the recent past have been through semi-legal or illegal means." The term illegal means occupancy of land against the law. The poor occupy a piece of land, build their houses according to their own choice without obtaining permission from the planning authority. After a few years when the settlement is developed, they establish a welfare organisation which establishes contacts with the political leaders and local authorities to order to gain legal access to basic infrastructure and other services.

2.031 During the election campaign, these organisations negotiate with the politician to recognise their settlements on the official record, in return for political support from the residents of that particular area. In order to gain political support, the politicians immediately approach the

local authorities concerned and put pressure on them to recognise the newly established low-income settlements in the metropolitan area. Once the settlement is recognised and names of the adult residents are included in the list of voters, they have the right to get those facilities which a citizen can have by the law of the country. In this way the urban poor receive political support and are encouraged to invade land illegally in large cities. This is happening mostly in Karachi metropolitan area (see Chapter 4).

2.032 In some countries the poor invade the land and elsewhere Doebele (1975) " they purchase land from private property developers." Both cases are well represented in the Third World, where the former occurs in squatting areas, while the other in semi-informal housing sectors. Such land often lacks planning permission from the local authorities. Payne (1982) says in some countries " the poor rent the land from public or private landowners." If it belongs to the state, land is allocated to the poor on a leasehold basis, which is generally for 99 years and if it belongs to a private landlord, there is a conditional allotment where, the poor are allowed to build their houses temporarily, so that they could be evicted at any time. Wegelin (1983) says " unlike other countries private landowners in Bangkok often allow slum dwellers' to occupy their land but insist upon maintaining the dwellers status as temporary occupants."

2.033 Overall, if the poor do not succeed in gaining access to the piece of land by any means explained above, due to their limited resources, they settle beside, either the houses of middle and high-income households or public parks in suburban areas. These invasions vary from country to country depending on its local geographical; physical; political; socio-economic; and urban growth conditions. In some countries the invasions occur during election time, in some others during political crisis; and some elsewhere, according to Gilbert (1981) " during the introduction of new socio-economic regulations of environment." Giving an example Angel (1983) says that " squatting in Karachi is usually organised by entrepreneurs with political or bureaucratic connections who obtain tacit approval for squatting on Government land at a given location in exchange for money or favours."

2.034 The success and failure of land invasion depends upon the numbers of people involved, the occupancy status of the land invaded, the presence or absence of pressure from the landlords, the strength of the groups backing the invasion; and the sensitivity of the Government to the pressure from these groups.

Effects of Slum Existence on Metropolitan Development.

2.035 In the previous sections, the different factors involved in the process of migration (reasons), and the ways

adopted by the poor to form the slum in the metropolitan areas were described. Whereas, this section aims to find out the effects of slum existence on the development of the city, in the terms of physical, social and economic growth.

2.036 Due to rapid population growth low-income settlements, social dislocation and individual hardship have become a common feature of the developing countries in the second half of the twentieth century. The movement of population from rural to urban areas and increases in rates of population growth have aggravated the problem, resulting from an already low standard of living, often threatening even the most basic standards of living. Kelley (1984) observes " the more rapid the city growth the more important is immigration as a share of the city population increase." This has created problems not only beyond the provision of better housing but it has affected the physical and socio-economic development of the city as a whole. Suzanami (1984) says " the demand for housing stems from a combination of three forces: population growth, rate of housing replacement and the improvement of living standards." The improvement of living standards is a never ending source of pressure for more and better housing and as a source of income.

2.037 It is agreed by many researchers and by International Agencies such as the united nations that a substantial increase in population has been associated with the problems such as shortage of land, water, and decent houses, traffic

congestion, pollution of air, soil, and water, and the conditions of ill-health, which badly affect the living environment as well as development of the city and destroy the attraction that the city may have at one time possessed. In some countries the growth of even one large city can result in an extremely unbalanced urban settlement pattern.

2.038 The existence of slums in metropolitan areas directly impacts on:

Physical Development.

(a) Cost of living. Because of the large population, there is a great demand for housing, particularly for decent housing in the large cities. The land becomes dearer, the price of a house increases, and at the same time the owners of houses increase rents for their houses. Hence the cost of living tends to be affected in the metropolitan areas.

(b) Land Development Costs. The more important factors contributing to urban land costs are, increase in land prices, increase in the costs of servicing land with improved facilities, and the increase in the public regulation of land development. The increase in land prices is basically due to the increase in population and more particularly, due to the urban population, or looking at it another way, due to the concentration of that population in urban areas. Certainly, the more extreme instances of increase in urban land prices are found in the developing

countries due to their undergoing rapid urbanisation. For example, between 1950 and 1965 some of the undeveloped parts of Calcutta increased in value by 900 percent. A similar increase in the value of residential land took place in six major cities in Japan between 1955 and 1965.

Sources. Indian National Planning Commission (26 Jan 1966). Tokyo Seminar of the International Federation of Housing and Planning. A paper by Heihachiro Adachi (1966).

Social Development.

2.039 Special attention must be devoted to the increase in what is called 'juvenile delinquency' in metropolitan areas all over the world. In the view of Rose (1984) "the pressures within modern urban society which lead to family breakdown are among the basic causes of juvenile delinquency." Weissmann (1984) thinks that "the growing physical congestion and social tensions created by this concentration of uprooted unemployables in slums and squatter towns has reached, in some areas, levels that are bound to distort projected development, delay progress and sometimes reverse hard earned economic and social gains."

Economic Development.

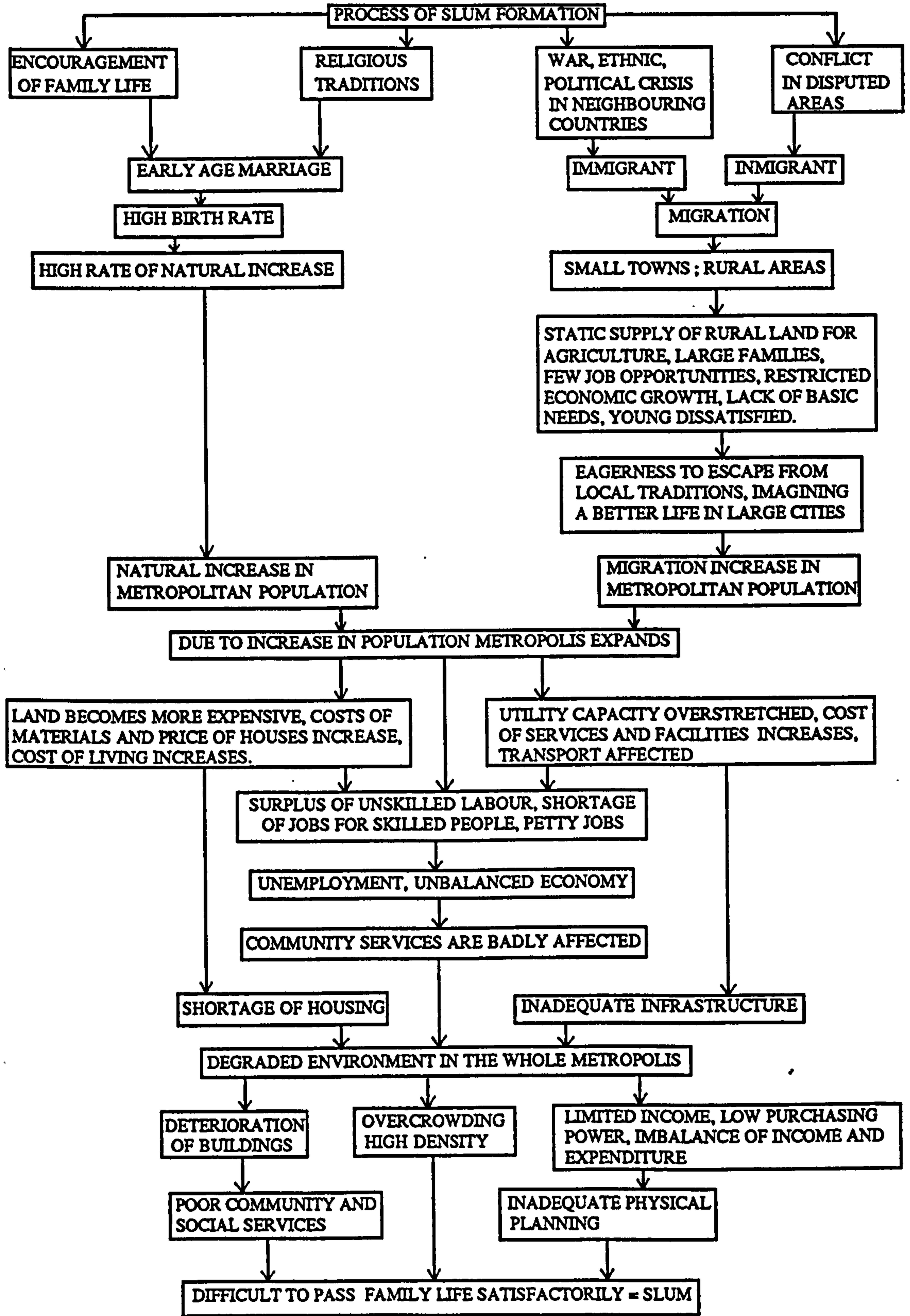
2.040 Economic development in developing countries is still limited. The extremely sharp rise in population is not

paralleled by home building, by improvements in standards of living and by new job opportunities. Miles (1984) considers that "despite economies of scale, areas of high-density population (day light or night-time) tend to suffer from an inadequate percapita infrastructural investment. One such manifestation of this, is the high density slum area with its very much overused facilities." Process of Slum Formation: causes and their effects on the development in metropolitan areas, and physical social and economic characteristics of slums are summarised in Figure 2.1.

Government's Response to Problem.

2.041 Although some planning activity had emerged since the colonial administration period, the practice of modern urban planning in general is relatively new to most Third World countries, in terms of both professional activity and its (planning) acceptance within that social and political context. This situation, coupled with the lack of experience in dealing with urbanisation on a massive scale and at an extremely rapid rate, with other distinctive pressures, on development has forced planning authorities to adopt planning policies and programmes based on trial and error.

THEIR EFFECTS ON DEVELOPMENT IN THE METROPOLITAN AREAS.



2.042 Furthermore its concepts and principles, which are clearly based on western planning theories and models, can cope with problems and fit well, only within the context of the formal sector of their cities, leaving most of the problems of the informal sector unresolved. This apparent lack of appropriate planning knowledge has contributed to increasing the gap between the formal and informal sectors of the city and this gap is growing with time (Taylor 1982).

2.043 The problems of squatters are not new. In fact, they have been around for centuries. However, the magnitude of the problems as noted earlier are historically very recent as an urban phenomenon. Settlement planning in Third World countries presents a multitude of such problems which cannot be solved merely by the adoption of western planning methods. According to Turner (1980) " The early attempts to introduce, for instance, British development plans into India, or North American Regional models into Chile, did little to help India or Chile and a great deal to harm the reputation of the planning profession."

2.044 Regarding the slums as primarily a physical problem caused by a rapid growth of population, the developing countries have tried their best. To overcome the problem, different approaches and development programmes have been initiated by the developing countries as follows:

1. Schemes of slum clearance and relocation.
2. Urban community development.

3. Housing for low-income households.
4. Low cost housing.
5. Site and Services, and Upgrading Strategies.
6. Satellite Towns.
7. Metroville projects.
8. Improvement and Regularisation of Katchi Abadis.
9. Restraint of migrational flow either by accelerated rural development or by deliberate restriction of urban services.
10. Development of New Towns.

2.045 The problem of slums in many developing countries is usually seen by governments in terms of housing and other basic services. They view the urban slum problem as one originating from the needs of these people for shelter, employment, and communal and social services. However, Many governments at national and local level have joined forces to treat the problem in its totality and have initiated a variety of programmes in terms of housing assistance.

2.046 In the beginning most of the developing countries adopted a scheme of slum clearance and relocation of the people evicted from their settlements. Under this scheme, many spontaneous settlements in the centre of the cities were demolished in the hope of providing the poor with a cheap house on urban land. In the process of demolition and shifting of people, their eviction from the land did nothing but shift the problem to some other location and as a result the urban poor have had to squat and house themselves on

vacant land (public or private) depending on political, social, and economic situations, within the urban areas, and have created low income housing areas in most Third World cities. Angel (1983) states that " such shifts on the contrary often result in net reductions in already limited housing stock."

2.047 In the mid 1950s, government responses shifted from schemes of slum clearance to a policy for providing public housing, the aim of which was to improve the living environment of the urban poor. This kind of policy could not help in solving the problem of housing the poor, because it was more expensive than the poor could afford, and it did not match the housing demands of poor people who were looking for a shelter for their families from the hot and rainy weather, and to keep them safe and secure. In the opinion of Gilbert and Ward (1985) (eds.), "public housing does not serve those poor people who are actually in need of shelter but characteristically, seems reserved for people who support the government objectives." Angel (1983) explains an experience of public housing in most countries of the Third World. In his view " with the exception of Singapore, Hong Kong and China, public housing programmes throughout the developing world failed to meet expectations. This kind of housing is limited to meeting the high demand of the poor, because of the high costs of public housing construction, housing the poor in standard housing units require large subsidies per unit from public funds."

2.048 Recognising the lack of funds, great demand for houses and basic services from the urban poor, the governments adopted a new approach by providing and servicing land and leaving the actual housing construction to the people themselves. Two general policies have been adopted from the environmental experience of the poor, i.e. to upgrade the existing settlements and to ease the development of new settlements, (site-and-services). The main idea is to provide a plot of land with security of tenure, gradual servicing, access to credit, advice on construction and materials, leaving the whole construction process in the hands of the users according to the improvement in their economic resources. Under these formulas the government of Pakistan introduced the Metroville Project, and Improvement and Regularisation of slums (locally called Katchi Abadis).

2.049 The policy throughout the developing world has been changed, the necessity of the improvement of environments in slums is increasingly being encouraged and recognition of low-income housing areas as sub-system of settlement pattern in metropolitan areas has been started. Schemes of upgrading slums have been launched by the governments in most developing countries.

2.050 A comprehensive and realistic approach to the problems of low-income settlement in South East Asia was made in Manila through Zonal Improvement Programme. In 1969, the Indonesian government in Jakarta initiated the Kampung

Improvement Programme (KIP). In 1972, the government of Tanzania extended upgrading of squatter settlements managed by the Ministry of Lands, Housing and Urban Development. In 1974, following Tanzania and Zambia other African countries adopted the programmes of upgrading slums in their own countries.

2.051 During the 1970s, with the help of US AID, the government of Brazil authorised an Agency for Community Development to upgrade slums locally called favelas in Rio. Experiences of the same kind are reported from Peru (to upgrade Pueblos jornes), Bangkok, Madras, Delhi and Dacca (slums). Dwyer (1975), Shubert (1979) and Otto (1980) explain that " among the popular alternative strategies, the slum clearance, notably site-and-services, upgrading or improvement of existing slum areas and the encouragement of employment within the informal sector have received favorable support from most of the international agencies and have been often accepted as settlement planning approaches, applied in and adopted by many Third World countries in Africa, Asia, and Latin America."

Techniques and Methods Applied to Reduce the Problem.

Upgrading or Improvement Policy.

2.052 The planning concept in this upgrading policy was to emphasise an on-site improvement, rather than attempt total clearance. The objective was to provide the project site

with minimum urban infrastructural facilities (paved circulation paths, watersupply, sewage and refuse disposal system), while retaining most of the existing housing stock. It was expected that these improvements would eventually stimulate the residents into investing in their own houses, thus contributing to the improvement of their living environment. This improvement programme has shown that this approach seems to be the most viable alternative open to policy makers in most cities of the Third World.

Site and Services Policy.

2.052 This concept in the process of the development of residential areas has been supported by the United Nations since the early 1970s. The philosophy is to provide the urban poor with the opportunity to live and work in an affordable planned and sanitary urban environment. In the implementation process of this policy, the Government's involvement is minimal and restricted only to the planning and construction of subdivisions with a basic infrastructure system. Prospective occupiers are responsible for building their own houses. This concept allows local authorities to have jurisdiction and control not only of the overall physical development of low income settlements, but, most importantly, of its sanitary conditions as well. The World Bank specifically defines this development programme in the following way.

" site-and-services is the sub-division of urban land and its servicing with varying combinations and levels of public utilities and community facilities for residential and commercial use. Generally the objective of site and services is to provide an economically accessible physical framework to a specific target low-income population for their shelter and related employment needs. Site and services programmes normally rely heavily on the efforts of community residents with or without any assistance, to attain their objectives."

Source. Preliminary Draft IBRD, Washington DC (AUG 74).

2.053 The nature of the programme as described above required that several preconditions be met in order to be successful.

1. To plan an entirely new settlement community, a vast tract of vacant, cheap land, preferably in close proximity to a major public transportation network should be available and acquired. A careful locational analysis should be made before the project site is chosen and purchased.

2. The environmental quality of the proposed project site is an important factor in the site selection process. A great deal of care should be taken in site analysis to determine the suitability of the proposed site with respect to housing, street location, drainage and sewage disposal system.

3. The proposed project site should have good access to existing infrastructure systems, such as access to roads, electricity, sewerage system and most importantly to potable water.

4. The site-and-services programme emphasises the need for related employment needs. In the site and services, housing alone may not make much improvement in people lives. Commercial and perhaps some small business enterprises and light industrial activities and other social facilities within, or close to, the settlement, should be encouraged.

2.054 Typically the planning and designing of a site-and-services project is based on a set of very strict terms of reference as provided by the housing or project authority. These terms of reference relate to technical, scheduling and financial concerns. As a consequence little room is left for planners and designers- for example, the size of plot is standardised and is usually influenced by the methods of sanitary disposal to be utilized and by financial restrictions. In some cases, a 'core-house' which is basic shelter, is included on each plot- the occupier will have this initial basic shelter when he moves in and as his financial status improves he will eventually complete or expand his shelter and transform it into a more livable house reflecting his taste and choice. Sanitary core provision is necessary for the housing authority or local

government to be able to control the sanitary conditions of the entire project site. In reality it is hard to meet all these pre-conditions. Aside from the high costs of urban land, very seldom is a large tract of land to be found in close proximity to employment centres or main transportation lines and still be within the boundary of or close to the city. Further, the more or less one class nature of the project makes it difficult for this type of community to support or attract a variety of commercial and / or other social facilities.

2.055 Both organised self-help techniques and core housing ideas became inappropriate as a policy for low-income groups or urban poor for the reasons explained above. While evaluating programmes for site and services, Van der (1985) explains that "Only in two countries, Philipines (Manila) and Bostwana, have site and services projects resulted in stopping further increase of the proportion of illegal forms of low-income housing."

The Conflicting Choices.

2.056 In the last decades, sporadic studies on modernisation in the Third World countries have been carried out. As yet no specific conclusion has been reached. Now some scholars have suggested that the urbanisation (ie modernisation) process in Third World countries is fundamentally different from the earlier examples of the west. Hence scholars like Mc Gee, Friedman, Frank and others, are now beginning to

question the myths and fallacies of western-based planning theories and their suitability for application in the Third World. In general, their visions regarding the problems can be divided into two views: one sees the cities as "enclaves" surrounded by hostile peasantry, where the elite play games with the power and wealth they have acquired since independence. The other sees the cities as "beach-heads", centres of modernisation which act as the catalyst for economic growth, centres from which the benefits of modernisation flow outwards to revitalise the stagnating agricultural sector.

2.057 Friedmann (1973) who seems to belong to the second view, sees the strength of these countries lying primarily in their cities because as capitalist structures they have the capacity for economic growth. He theorises that as a form of human settlement the city is a social system located in a geographic space that occupies a certain position in a system of interconnected settlements.

2.058 Since national development occurs in this social interaction network, the role of cities as catalysts in national development is apparent. This theory is supported by Berry (1973) who seems to agree with Friedmann. He says that " continued concentration of economic growth in large

cities is necessary to capture economies of scale and to accumulate externalities in the form of social and economic overheads and infrastructure because these, in turn, are pre-requisites for the further growth needed to provide resources required to induce further development."

2.059 McGee (1971), who labels Friedmann's theory as a 'city dominant theory', argues that many western theorists have indiscriminately tried to apply western theories to the urbanisation problems of Third World. Though he admits that the form of the urbanisation process in the Third World may appear to be the same as that which characterised the west, the different mix of the components of the urbanisation process in the Third World suggests that this factor is of such importance that at least one element in western theory should be discarded. This is the view that the city is an inducer of change. He states further that "urbanisation may simply be defined as the growth of the cities or more pertinently designated as a process of societal change."

2.060 Friedmann and others seem to be concerned more with a geographic diffusion of urban values, behaviour and institutions; thus, foreseeing a process of modernisation at a regional (or even national) level. Mc Gee, on the other hand, seems to focus his attention more on problems at the urban level; on the geographic concentration of population

and non-agricultural activities in urban environments, notably the primate cities. The two views, however, seem in agreement that in both cases, urbanisation is referred to as a complex process which occurs within a spatially organised system.

Conclusion.

2.061 From a broad review of the literature about the nature of the problem, formation of slums, their effects on the development of metropolitan areas, and policies, programmes and schemes applied by the developing countries at a large scale to reduce the problem, the author has learned that in general, much of this literature points to the distinct form of settlements within the study of modernisation and urbanisation, and adapts two contradictory themes. The first identifies breakdown, lack of social standards, frustration, poverty, and other similar problems among slum dwellers and their offspring in the cities. The other emphasises the opposite characteristics, family continuity, maintenance of community, community organisations and the general ability of slum dwellers to struggle for bringing change in their lives.

2.062 A lack of control on invasion of land in large cities is fairly general in most of the Third World, because the

factor of greatest importance to poor people desperate for homes is land availability. The most significant kind of available land, however, is that which has a very low value for both the local authorities and affluent groups. Thus, the urban poor who cannot purchase or rent a house try to acquire a piece of land which is located either on the periphery of the city, in closest possible proximity to job opportunities, or at least conveniently accessible to transport facilities.

2.063 The poor invade urban land either individually or in small groups, whether in organised or unorganised ways. They also invade land by illegal or semi-legal means. The styles of invasion vary from country to country depending on local conditions- geographical, political, physical, social, economic and developmental. The immediate objective, however, is simply to settle quickly into the chosen area and to obtain de facto possession by a display of group solidarity. From the previous observations, comments and arguments it is clear that migration is largely an uncontrolled process in the cities of the Third World.

2.064 Due to the movement of population from rural to urban areas combined with the rate of natural increase in urban settlements, many families are living in overcrowded houses, utility capacity is overstretched, costs of services and

facilities are increased, the transport system deteriorates under the additional pressures, there is surplus of labour (problem of unemployment) and the community services are badly affected. This lead to a general degradation of the environment and affects the development of the metropolitan areas in terms of physical, social and economic growth. The present situation has increased the demand for better accommodation, service facilities and job opportunities for millions of the urban poor in the metropolitan areas of the Third World.

2.065 As regards shelter and job opportunities for the urban poor living in squatter settlements and slums (whether legally or illegally), the governments and authorities concerned have applied different policies at national and local level to reduce the problem. For maintenance and a cheap labour force, the governments and dominant capitalist modes of production have allowed the poor 'the self-help' production of such settlements in order to decrease the public pressure on governments to increase wages and to obviate heavy pressures for public funding. (Burgess 1978) Hence governments intervened more positively in the problems of the urban poor in the form of technical assistance, using the efforts and available resources of the residents for housing the poor on a large scale.

2.066 The Governments' responses to the urban poor have changed dramatically in the last three decades. Governments have approached the problem by applying different policies and techniques, especially upgrading or improvement and site-and-services, as processes in the development of housing and encouraging the poor to establish a better economic status. Whatever policies have been made or adopted by developing countries for reducing the problem of slums (housing, other basic services and unemployment) in urban areas, they have failed to achieve their fundamental goals.

2.067 It has been observed that the metropolitan problems are enormous and require the co-operation of all if they are to be tackled logically. In developing countries the top priority is given to economic development, while social and physical developments (including housing and city planning) are left far behind. Many researchers and scholars have carried out research on the problems of housing or employment in urban areas within the cities of the Third World. Some of these scholars have emphasised consideration of employment as one element in helping to solve the problems of the urban poor. However, the purpose of this study is to consider problems of the existing low-income settlements, particularly of katchi abadis in Karachi in order to propose suitable policies for solving the problems of these settlements in the metropolitan areas of Pakistan.

2.068 It is concluded that due to rapid growth of urban population, uncontrolled migration towards cities, and limited resources of income, there is always a shortage of housing, a lack of employment opportunities and heavy pressures on public utilities which give rise to many other problems in the big cities of developing countries. Thus the existing urban land-use and housing policies require evaluation for the development of a fundamental policy for metropolitan settlement in the future, which would benefit not only the rich but also the urban poor with low and lowest-income. Hence it is necessary to evaluate the existing policies and formulate an effective policy which could help in solving the major problem of physical settlement in the cities of the Third World. The next chapter will contain the experiences of slum formation and the policies adopted by the governments of India, Egypt and Pakistan- developing countries, with a view to reducing the problem of slums (katchi abadis).

Chapter Three. The Experience In The Developing Countries.

Introduction.

3.001 This chapter intends to examine the situation in India, Egypt and Pakistan the three developing countries. The purpose of examining is to highlight nature of the problem and critically describe policies and programmes applied by these countries for reducing the identified problem. To achieve this objective the author searches into principal causes of slum formation: proportion of the urban population living in low-income settlements and slums. The author also identifies the number of squatter families and slums or katchi abadis in each of these countries, and also in Delhi and Cairo metropolitan areas. Karachi metropolitan area is excluded from this chapter for the reason of it being the Case Study of this research, and hence is examined and described in Chapter 4. The other purpose of this chapter is to gain knowledge about the problem and policies adopted by three countries to solve the problem, and to analyse this information in order to suggest suitably feasible policies for reducing the rapidly growing problem of katchi abadis or slums in Pakistan, and the large cities of India, Egypt and other developing countries if possible.

3.002 Why amongst many developing countries have India and Egypt been selected, and why amongst other cities of these two countries have the Delhi and Cairo metropolitan areas been chosen? The grounds for comparison are:

1. The two countries, Pakistan and India enjoyed their Independence from the British Empire in the same year (1947).
2. Migration started from and to both countries at the time of Independence.
3. Both countries faced similiar problems in settlement of migrant families.
4. Both countries tackled the problems in emergency.
5. Both countries established organisations to tackle the problems of planning and development in their own countries.
6. Being constituents of Indian sub-continent both countries have broadly the same culture and life style, (except from the religious point of view) and also have a common economic range.
7. During the past 44 years of independence two wars have been proceeding with neighbouring countries, with consequent loss of the Easterly part of what was Pakistan (Bangladesh)
8. Soon after declaring Independence, the governments of Pakistan and India announced Karachi and Delhi the capitals of their respective countries.
9. Like Delhi in India, Karachi in Pakistan and Cairo in Egypt are both capital and primate city

(although Karachi lost its capital status in 1964 to Islamabad).

10. Like Pakistan with India, Egypt had a war with Israel.

11. Like Pakistan and India, Egypt had experienced rapid growth of urban population particularly in its primate city.

12. Because of the increase in their urban population due to natural growth and migration towards large cities, the three countries are faced with the problems of deficient housing, basic services and infrastructure in the large cities, and in the capital cities in particular.

13. There is a substantial increase in the amount of low-income housing areas in all three developing countries, and in their primate cities in particular.

14. Delhi, Cairo and Karachi are growing fast and have adopted similar patterns for their development.

15. The three developing countries have adopted and executed policies for solving problems of low-income housing areas, having very similar objectives.

For learning more about the actual situation with regard to the grounds for comparison mentioned above, three countries and their primate cities are considered as follows.

INDIA.

3.003 Although India is a predominantly agrarian country, it is expected to have a continuous increase in urban population throughout this century. India's urban population is the second largest in the world, the largest being China. It is expected that, by the end of the century India's urban population will be the largest of any country in the world. The total population (1981) and estimated (1991), and population living in low-income settlements in metropolitan areas in India are shown in Table 3.1.

Table 3.1 Estimated Urban Population and Slum Population in Metropolitan Cities of India, 1990.

Metropolis	Total population (M)		Slum population (M)		Slums % of total population	
	1981	1990 est.	1981	1990 est.	1981	1990 est.
Calcutta	9.19	12.53	3.02	4.38	32.9	35.0
Bombay	8.24	11.78	2.83	4.12	34.3	35.0
Delhi	5.72	9.76	1.42	3.20	25.0	32.8
Madras	4.28	6.02	1.36	2.10	31.7	35.0
Bangalore	2.92	5.18	0.30	1.37	10.3	26.4
Hyderabad	2.54	3.70	0.50	1.12	19.6	30.3
Ahmedabad	2.54	3.77	0.53	1.13	20.9	30.0
Kanpur	1.63	2.28	0.61	0.80	36.3	35.0
Pune	1.68	2.57	0.27	0.51	16.0	19.8
Nagpur	1.30	1.88	0.41	0.56	31.5	29.8
Lucknow	1.00	1.31	0.28	0.39	28.0	29.8
Jaipur	1.01	1.63	0.29	0.49	28.7	30.0
Total	42.05	62.41	11.82	20.17	28.5	32.2

est. Estimated.

Sources: Dr. Gowda, K. and M V Sridhara (1987), Paper for the international conference on 'Urban shelter in developing

countries' 1-4 September, London.

3.004 From the table 3.1 it is clear that by 1990, there will be an increase of about 20 M in the total population of the large cities of India. At the same time the number of people living in slums will increase by 9 M as compared to the 11 M population in 1981. In three, Bombay, Calcutta and Delhi the largest Metropolises of India, the Delhi metropolis is expected to accommodate a high proportion of the total population in the country. In Delhi by 1990 there will be an increase of about 4 M people.

Housing and Relevant Problems in India.

3.005 The problem of urban housing in India is greatly complicated by the rapid pace of urbanisation and by other inbuilt constraints in the urban process. The important problems associated with urban housing are,

- (i) large scale immigration resulting in Basties and Tintowns, leading to formation of slums;
- (ii) low level of household income and more generally a shortage of capital;
- (iii) lack of developed land;
- (iv) high price of developed plots and cost of houses built by the local authorities.

Because of the increase in the rate of population growth there has been an acute shortage of shelter for the people, in the urban areas of the country. According to Mongia

(1986), there was an increase in the shortage "from 14.5 million units in 1971 to 21.3 million units in 1981." The figures calculated by Ramaiah (1984) affirm this trend: "the shortage of 23.3 million units in 1982 has grown to 23.8 million in 1983." India's National Building Organisation (INBO) has estimated the country's housing deficit from time to time. According to INBO's conservative estimates and Robben (1986), in the National Five Year Plan (1985-1990), "reference is made to a shortage of 24.7 M in 1985."

3.006 The total shortage is in fact increasing. The Indian National Building Organisation (INBO) (1987), has estimated that it will become 29.2 M in 1990, 33.6 M in 1995 and 39.2 M by 2001 (see Table 3.2). The shortage of housing in the big cities of India is further exacerbated by the lack of basic amenities e.g. drinking water and toilet facilities which for a large number of households are unsatisfactory. According to the 31st round of National Surveys only 22% of slum households in cities enjoyed the facilities of underground drainage; about 58% of slum houses in cities were in areas which were waterlogged during the monsoon. Even today in Delhi, Juneja (1987) says " More than 1/3 of Delhi's population is getting less than 45 litres of water per day as against the per capita average of 225 litres per day. For Delhi as a whole the international standard is 360 litres per day."

Table 3.2 Actual and Estimated Housing Shortage in India.

Year	Deficit of Dwellings (M)		
	Rural Areas	Urban Areas	Country as a Whole
1951	6.5	2.5	9.0
1961	11.6	3.6	15.2
1971	11.6	2.9	14.5
1981	16.1	5.0	21.1
1985	18.8	5.9	24.7
1990	22.3	6.9	29.2
1995	n.a	n.a	33.6 *
2001	n.a	n.a	39.2 *
Total	86.9	26.8	186.5

*. Estimated.

Sources: Delhi: Volume 4, No.4, April-June 1987.
Third World Planning Review: Volume 8, No.4, November 1986.

Low-income settlements and Slums in India.

3.007 Substandard and low-income housing areas is no new phenomenon in India, but the increase in absolute numbers has been dramatic in recent years. The burgeoning of such settlements in India, as elsewhere, is the result of both 'push' and 'pull' factors. The metropolitan cities in India are attracting large number of families from rural areas and from small urban settlements. On their arrival the majority of these families find it more and more difficult to enter into the housing market whether by renting, by purchasing or through a housing agency, due to their modest means. In the prevailing conditions, such families are compelled to occupy public or private land. This phenomenon is well known

throughout the countries of the Third World. It has been found that such families in the cities of India are increasing at a rate higher than the rate of increase of the population.

3.008 As a result of this increase, unauthorised settlements and slums have been growing in the large cities of the country. These settlements have become the most serious problem within the urban settlements of India. A typical unauthorisly occupied site in India is normally an unattractive piece of public land, for example, a river or canal margin, an abandoned reservoir, a steep and rocky hillside or a disused graveyard. Robben (1986) comments that: " Current estimates reveal that 35-40 million people are now living in slums and squatter settlements and this number will increase to some 70 millions before the end of this century."

3.009 On the other hand inadequate housing, in the low-income settlements of a metropolis also means denial of access to services, sanitation, drainage, health facilities, education, recreation, and income-earning opportunities which can lead to the formation of slums in metropolitan area. The Planning Commission of India 1986 has estimated that "1/5 of the urban population live in slums." Hence in order to learn about the policies that the Government of India had adopted and applied to solve the problems relevant to housing along with other problems relating to the slums,

the author examines present policies relating to housing and slum improvement as follows.

Policies And Programmes Adapted For Solving The Problem.

3.010 The Indian Central Government is obviously familiar with the problem of housing shortage, particularly in urban areas. Since the 1950s several important policies and schemes have been launched by the Government of India in an attempt to reduce the problem of housing in the urban areas as follows:

i) Integrated subsidised housing schemes. This scheme was intended to be for the construction of subsidised rental houses for those low-paid industrial workers and others in economically weaker sections of the community who could not afford high rent housing in the centre of the city.

ii) Low and middle-income group housing scheme. The purpose of this scheme was to provide loan assistance to those people who could afford to build their own houses. The loan was assisted to the extent of 80% of the total cost of a house.

iii) Rental housing scheme for State Government employees. This scheme was introduced to help low-paid government employees to construct their houses. Under this scheme, the low-paid employees were financed by the Life Insurance Corporation (LIC) of India. This is purely a government

institution and its function is to finance the urban poor for the improvement of their living environment.

iv) Slum clearance or improvement scheme. Under this scheme of urban housing the State Government provided financial assistance to the states and union territories, and through them to local authorities, for the clearance or improvement of slum areas and rehousing the slum dwellers in the proper low-income houses constructed for them.

v) Land acquisition, development and disposal scheme. This scheme aimed at large-scale acquisition, development and disposal of land by the State Governments, to enable local authorities to make developed plots available at reasonable prices to intending house builders, particularly those belonging to low-income groups. The main goals of the scheme were:

- i) to achieve optimal social use of land;
- ii) to ensure the availability of land in adequate quantities at the right time and for a reasonable price to both public authorities and individuals;
- iii) to prevent the concentration of land ownership in a few private hands and safeguard the interests of the poor and underprivileged; and
- iv) to control urban land values and to eliminate speculative profits. Ballabh (1987)

3.011 Since 1982, the Government of India has reclassified all above schemes into six new categories, on the criterion of income range, as

- 1) housing schemes for the economically weakest sections;
- 2) low-income group housing;
- 3) middle-income group housing;
- 4) rental-housing schemes for the State Governments' employees;
- 5) Site-and-Services; and
- 6) Environmental Improvement of Urban Slums (EIUS);

3.012 The purpose of Environmental Improvement of Urban Slums (EIUS) is to provide security of tenure to the slum dwellers so that they may develop a stake in maintaining and improving the habitat. Under this programme the basic services like water supply, sewerage, stormwater drainage, community baths and latrines, widening and paving of existing lanes and street lighting are provided by the Metropolitan Authorities for the residents of slum areas.

Note: For the purpose of the implementation of the EIUS, the Government of India adopted the following definition for the identification of the slum in urban areas. " A slum area means any area where such dwellings predominate which by reason of dilapidation, overcrowding, faulty arrangement or

design of building, narrowness or faulty arrangement of street, lack of ventilation, light, sanitation facilities, inadequacy of open spaces and community facilities or any combination of these factors, are detrimental to safety, health or morale."

Source: Dr. Gowda K & Sridhara, M.V (1987).

Delhi: Vikas Virta, Volume 4 No.4 1987.

3.013 To solve the problems of the urban poor in metropolitan areas and other cities of the country, the government of India initiated slum improvement projects in a number of cities as an alternative approach to the previous policies and programmes which had failed. Since 1984, the UK's ODA and the Government of India have been funding an integrated slum improvement project in the city of Hyderabad (Dakhan) where according to Rt. Hon. Lynda Chalker, the UK Minister for Overseas Development Administration "Over half a million people live in the city's slum areas." The main aim of the project is to integrate the slum communities into the economic and social network as well as into the physical fabric of the city. This project is based on a problem-solving approach to slum improvement and community development. According to Chalker (1990) "The project includes secure land title, environmental improvement- such as paved streets, lighting, water, drainage and sanitation, improved health care and family planning services, loans for

small business and support for community initiatives in education and training."

3.014 The project has slightly modified the form of security of title as mentioned in the policy for EIUS. This project is not limited to slums on public land. Under the terms and conditions agreed by the government of India, land sharing arrangements have been worked out with private land owners. Slum dwellers have agreed to vacate part of the land they are occupying, so enabling the land owner to carry out residential or commercial development on condition that land ownership of the remainder of the site is handed over to the slum dwellers.

3.015 The package of project components for environmental improvement in slums includes physical inputs such as:

- hard surfaces to roads and footpaths;
- sewers where connections to the trunk system is available, with the further possibility of individual drain connections;
- low-cost sanitation on either a group or an individual basis;
- storm water and sullage drains;
- street lights with the possibility of individual service connections;
- water supply through a piped system or from deep-bore well;
- refuse containers for solid waste disposal;

- multi-purpose community halls;
- worksheds and vocational training centres.

3.016 The community development component includes the following programmes:

- pre-school education i.e day care centres;
- informal education for school drop-outs;
- adult literacy;
- vocational and skill upgrading;
- technical education sponsorship, training of women in economic activities;
- small business loans;
- matching grant support for sports, recreational and cultural activities;
- social awareness programmes and,
- study tours for slum leaders.

3.017 In order to make the programme more effective, a high importance is placed on the role of women in the project, and many of the project components are specifically directed to them. In addition, literacy and employment-training programmes are focused on the women in the community. It is recognised that the income they earn is likely to be spent on the children and on investments that will bring long-term improvements in family lifestyle. The project has a substantial training component aimed at developing professional skills and at training the different disciplines necessary for this integrated approach, to work together as a team.

Volunteers from the community are considered as the main part of the programme, who provide health and community development workers as well as honorary teachers. Volunteers, the majority of whom are women, are given training as part of the programme, providing the essential link between the families, communities and the professional project staff.

3.018 The health component of the project includes the following:

- maternal and child health-care centres, immunisation, nutrition and programmes to reduce infant mortality;
- family planning services;
- curative health services;
- health education, prevention and treatment of simple illnesses.

3.019 From the components of the slum improvement project as mentioned above it seems that the government of India and UK ODA have accepted a big challenge, and have initiated a very comprehensive programme for solving the problems of slum dwellers in the city of Hyderabad. This project in real terms seems an ideal which could be used for the improvement of physical, social and economic environments in the slums of the metropolitan areas of other developing countries.

Financial Resources to Help the Poor.

3.020 The Indian Government has established different state housing institutions, which lend money to the poor for constructing their houses and developing economic sources. The Life Insurance Corporation and the General Insurance Corporation are the main funding institutions which contribute on a large scale in lending money for housing and urban development. The Life Insurance Corporation (LIC) is the more prominent, according to Robben (1986) "covering about 50 percent of total institutional lending."

3.021 The General Insurance Corporation is another main funding body which provides funds to the Housing and Urban Development Corporation (HUDCO) and to the Housing Development Finance Corporation (HDFC). These two (HUDCO and HDFC) organisations, working more directly at local level are involved with lending for housing production purposes. The Housing and Urban Development Corporation lends mostly for planned schemes run by the state housing boards. On the other hand the Housing Development Finance Corporation, established some eight years ago, is working on a completely commercial basis. This financial body mostly lends money to corporate bodies which consequently may be lending on to their employees, thereby bypassing the poorest groups who are often unemployed. Mongia (1982) says "More of these schemes have produced houses that are largely occupied by

households in higher-income groups due to, for example, the requirement of high instalment payment."

3.022 On the other hand the commercial banks are hardly interested at all in the urban housing market. It is very surprising that their contribution to housing investment amounts to not more than 10% of institutional housing investment i.e. less than 1% of the total market investment. Robben (1986) says " Yet it should be pointed out here that the total contribution of all these institutions to housing investment is still very small in relation to total market. (estimated figure around 6-7 percent only.)"

Delhi Metropolitan Area.

3.023 Delhi has a distinct position in India, being the capital of the country: Delhi's influence extends throughout India, being the seat of the National Government and a prime centre for the distributive trade to North and North-west India. The genesis of Delhi lies in the increasing urbanisation which offers the most opportunities for increasing employment and provides the basis for specialisation.

The Union Territory of Delhi, first constituted in 1803, is a narrow strip of Indo-Gangetic plain, bounded on the North, West and South by the state of Haryana and on the East by Uttar Pradesh with the river Jamuna which flows on the Territory's eastern border in a North-South direction.

Delhi Metropolitan Area has recently been redesigned and now it comprises the Union Territory of Delhi, Faridabad, New Okhla Industrial Development Area (NOIDA), Bahadurgarh, Gurgaon, Kundli and the extension of the Delhi Ridge into Haryana. For the purpose of planning and development the Delhi Metropolitan Area, including all the zones mentioned above, is considered as one urban conglomeration. The total area of the Union Territory of Delhi is 1486 sq km. Out of this, 447 sq km has been previously included within the developable limits prescribed in the divisional plan (see Table 3.3). The balance of the urban population resides within 19 settlements, 15 of which were defined as towns in the 1981 census.

History and Growth of Delhi Metropolis.

3.024 Delhi is growing at a rapid pace because of increasing migration. It has absorbed the history of centuries; on the one hand it has the throbbing lanes of Shahjahanabad walled city, built by the Moghul Emperor Shahjahan in 1638, and its outgrowth, old Delhi, now noticeably a slum area; and on the other hand the grand vistas of modern New Delhi, born with the transfer of the Capital by the British from Calcutta to Delhi in 1912. Delhi is becoming a focus of the developing world. At present Delhi has one convention centre viz. Vigyan Bhawan which has become a centre of fame for International

Table 3.3 Divisional Plan for Union Territory of Delhi, showing the different zones with the approximate area of each zone.

CODE	NAME	AREA (sq km)
A.	Old City	11.6
B.	Karol Bagh	23.0
C.	Civil Lines	39.6
D.	New Delhi	68.6
E.	Transyamuna	88.0
F.	South Delhi 1	120.0
G.	West Delhi 1	118.7
H.	N.W. Delhi 1	56.8
I.	South Delhi 2	151.8
J.	West Delhi 2	120.6
K.	West Delhi 3	229.8
L.	N.W. Delhi 2	82.1
M.	N.W. Delhi 3	158.5
N.	River Yamuna	60.8
O.	North Delhi	157.5
total	Delhi Union Territory	1486.4
	Urban Area in 1961	173.0
	Urban Area in 1981	447.8
	Area added in 1987	40.0
	Urbanisable Area required to be added by the year 2001.	200.0

Source. Delhi. Vikas Virta Volume 2, No. 2, 1985. p. 50.

conferences and it may not be necessary to duplicate the same. The exhibition ground viz. Pragati Maidan is very well known for international exhibitions. Delhi has an Institute mainly for higher studies in planning and development. This Institute deals with the planning and development problems of developing countries in particular. This Institute along with having facilities for the research and training in development problems has also specialised departments of recently expanding fields, e.g. energy, ecology, environment, genetics, computer science and others.

Population Projections of Delhi Metropolitan Area.

3.025 In 1988, Delhi, the capital city of India has a population of about 8 M including squatter population of approximately 2.3 M or more than 33% of the urban population. Studies have revealed that Delhi had an urban area limit consisting of 448 sq km in 1981. By the year 2001 it would be able to accommodate about 8.2 M population by judicious infill and selected modifications of densities.

To accommodate an estimated 12.2 M urban population by the year 2001 a two-pronged strategy has been recommended by Delhi Metropolitan Corporation.

- i) to increase the population holding capacity of the area within the urbanisable limits declared in 1981, and
- ii) extension of the present urbanisable limits as far as necessary.

3.026 It is estimated that to accommodate the remaining 4 M population, the Delhi urban area would need to be extended by about 240 sq km. Land required for various developments in the extended timeframe by the year 2001 may be acquired from time to time, with due regard to the balanced development of the city. Up to now approximately 40 sq km have been added to the Delhi urban area. An additional 200 sq km of urbanisable land will be required (refer to Table 3.3).

Table 3.4 Population Growth of Delhi Union 1901-2001.

Year	Population (M)	Growth rate % per decade
1901	0.41	-----
1911	0.42	2.0
1921	0.49	17.0
1931	0.64	30.6
1941	0.92	44.0
1951	1.74	89.1
1961	2.66	52.8
1971	4.06	52.6
1981	6.20	52.7
1990	9.20	48.4 *
2001	12.20	32.6 *

*. Estimated.

Sources: Delhi 'Vikas Virta' Volume, 4 No. 4, 1987.
Sivaramakrishnan K.C 1986.
Abhijit, Datta and Gangadhar, Jha 1984.

Housing and Relevant Problems in Delhi Metropolitan Area.

3.027 Almost every city in India suffers stresses and strains. But the worst affected are the large cities- Delhi, Calcutta, Bombay and others with a population of a million

or more- the so called million cities. The Delhi Metropolis at present accommodates about 1.2 M households in different low-income housing developments such as resettlements, slum and squatter, subdivided, multifamily, and others. Slums and squatter settlements are only too common to need emphasis. It is estimated that not less than 25% of dwellers in Delhi live in unauthorised settlements and slums. On the whole in India 30% of the city's population in large cities live in these settlements. These settlements are unserviced, with filth and squalor all around. In most cases open drains are dug alongside the footpaths in the settlement, which result in direct exposure of waste-water in spaces where some of the outdoor activities are regularly occurring. The foregoing sketch of the housing conditions of the poor in terms of dwelling type and quality (by construction material), number of rooms and floor space shows conditions of overcrowding, but the problems become more acute when households also lack basic amenities, utilities and facilities in their dwellings.

3.028 Regarding basic utilities and facilities, Sandhu (1987) for a comparative study on slums in Amritsar and Delhi, has used the survey results of Mujumdar (1983), who reported that in Delhi slums 94% of the poor lived in one-roomed dwellings (huts) of katcha or semi pucca type (see table 3.5) that lacked most of the basic facilities (kitchen, bath, and latrine)- there were no dwellings with private toilet, running water, sewer and electricity.

Table 3.5 Types of Dwelling and Number of Bedrooms in Each Type in Slum Areas in Delhi 1983 and Amritsar 1975.

Type of Dwelling	Slum Area		Number of Bedrooms	Slum Area	
	Delhi %	Amritsar %		Delhi %	Amritsar %
Katcha	51.7	9.3	One	88	45.7
Semipucca	44.3	43.3	Two	6	33.0
Pucca	4.0	46.4	Three +	6	20.3
No dwelling	0.0	1.0	Not applicable	0	1.0
Total	100.0	100.0		100.0	100.0

Source. Sandhu, Ravinder Singh (1987).

3.029 The studies on slum conditions done by Chandhoke (1986) confirmed that "in Delhi slums about 60% of the households had neither kitchen nor bathroom, and about 30% did not have lavatory of any sort in their house." The following table 3.6 presents available and future requirements of infrastructural facilities in the Delhi metropolis.

Table 3.6 Delhi: Present and Future Requirements in Infrastructure Network Capacity.

Infrastructure Network	Available Capacity	Estimated Capacity Requirement	
		1986	The Year 2001
Water Supply	4633 Ml/d	2232 Ml/d	4950 Ml/d
Sewerage	508 Ml/d	1768 Ml/d	4059 Ml/d
Electricity	500 MW	650 MW	2500 MW
Solid Waste	2000 t/d	2563 t/d	6700 tons/d

Source. Chandhoke, S.K (1986) with modifications.

3.030 The types of poor man's housing in the metropolitan area of Delhi include squatter settlements, squatter resettlement colonies, slums, slum dwellers' resettlement areas, inner city housing stock and the urban old villages. According to Steinberg (1990) "Out of the total housing stock in Delhi, over 50% of it is in the possession of the urban poor. About 10% of this housing stock is in squatter settlements and other 40% is either unauthorised construction or situated in the resettlement colonies of Delhi." With regards to the need of housing to provide basic shelter for the rapidly growing population in Delhi, it is estimated that about 1.6 M units will be required in the following two decades (1981-2001), and at quinquennial intervals as shown in the following table 3.7.

Table 3.7 Housing Required to Accommodate the Projected Population in Delhi Metropolitan Area 1981-2001.

Period (Years)	New units required (K)	Average per year (K)
1981-1986	323	65
1986-1991	379	76
1991-1996	434	87
1996-2001	483	97
Total	1619	N.A

N.A - Not applicable

Source: Delhi Vikas Virta Volume, 2 No. 2 1985. p. 12.

Low-income Settlements and Slums in Delhi Metropolis.

3.031 Within Delhi there is another Delhi, a jettisoned second city within the first that the majority of residents of the latter would prefer to forget. This dispossessed Delhi is represented by over 650 scattered Jhuggi-Jhoopris (shanty towns) which accommodate an estimated 2 M people.

The proportion of population living in unauthorised settlements in the city has risen from 4.5% in 1951 to 28% in 1987 (see Table 3.8). In the period between 1962 and 1981, more than 612 unauthorised low-income settlements appeared containing over 120 K dwelling units, with a density in places of 700 persons per hectare. According to Chandhoke (1986) "Even today there are 3.5 M people living in 50 K squatter families in Jhuggis. Slum areas have also expanded encompassing 1.8 M people in them." According to Bhatia (1989) "however, spokesman for the Voluntary Health Association of Delhi claims that a total number of 4.8 M live in sub-human conditions in so called resettlement colonies, which are often lacking the most basic amenities, including safe drinking water and proper sewerage facilities; these slums are fertile breeding grounds of disease."

3.032 According to the census in 1981, of the total additional number of families in 1951-1960 about 16.3% were housed in unauthorised settlements and in 1971-1981 this proportion increased rapidly, reaching 40%. The families

added to the city during the period of 1971-81 give a clearer picture of the relative increase in the number of squatter families. (See Table 3.9)

Table 3.8 Population % Living in Unauthorised Areas to the Total Population of Delhi Metropolitan Area 1951-1987.

Year	Total population (M)	Squatter population including settled (M)	%	
			Proportion of Squatters	Others
1951	1.437	0.64	4.5	95.6
1961	2.359	0.214	9.1	90.9
1971	3.647	0.580	15.9	84.1
1981	5.729	1.423	25.0	75.0
1987	5.787	1.646	28.4	71.6

Table 3.9 Additional Families and Proportion of Squatter to the Total Families in the Metropolitan Area 1961-1981.

Period	Total additional Families (K)	Additional Number (k)	%	
			Squatters % (*)	Others % (**)
1951-1961	184.5	30.1	16.3	83.7
1961-1971	257.5	73.0	28.4	71.6
1971-1981	421.1	163.6	40.1	59.9

(*). The percentage signifies the share of the squatters in the total additional families.

(**). Families other than the squatter families.

Source: Delhi Volume, 4 No. 4, 1987.

Policies and Programmes for Reducing Problems in Delhi.

3.033 The Government of India considered the problem of planned development in Delhi, even before the partition of India in 1947. For the use of urban land for various development purposes in Delhi, the Government of India initially set up the Delhi Improvement Trust (DIT) in 1937. Due to the arrival of about half-a-million refugees in the city after the political partition of India in the late forties, rapid population growth and urban sprawl occurred, and there was great pressure on urban services, which also demanded more land for use in Delhi.

3.034 In the early 1950s, in view of the national programme for rehabilitation of refugees, the Delhi Improvement Trust built many colonies in the metropolitan area to settle the refugees. Under this programme, initially, two-roomed dwelling units were built, and given to the residents on lease, either with an initial payment of Rs. 2000 to 5000 or as compensation for their lost property during the process of movement from Pakistan to India. Because of being the capital of a new nation, Delhi received large numbers of refugees. There were very high demands for housing large numbers of migrants, for provision of services in new areas and for maintenance of existing housing stock and services in the city. DIT was unable to deal with the situation. Hence the Government set up the Delhi Development Provincial Authority in 1955. Once again Delhi Development Provincial

Authority's planners could not cope with the situation, and were unable to control the increasing problems such as rise in land values, land ownership pattern and the flow of rural migrants to the city. Finally, the Government of India, established the Delhi Development Authority (DDA) in 1957.

3.035 In Delhi, like other major cities of developing countries, the problem of slums and juggies has attained substantial proportions, thereby causing concern to the authorities as well as to the community. In 1960, the local authorities announced the programme for shifting and relocation of squatters and juggi dwellers from the central parts of the metropolitan area. Under this programme, Juggi Resettlement Colonies were built, and the urban poor were forced to evacuate their houses and settle in new colonies built away from the city centre.

3.036 In addition to the implementation of programmes mentioned above, the Delhi Development Authority, prepared the Master Plan (1961-1981) for the planned development of urban areas. Since the inception of the Master Plan for Delhi, several programmes for housing the urban poor have been launched by Delhi Development Authority. Some of these are as follows.

- i) Allotment of developed plots to low-income groups.
- ii) Allotment of developed plots to middle-income groups.
- iii) Provision of small-sized plots to the squatters evicted from public land.

- iv) Auction of plots in the new residential schemes.
- v) Allotment of public houses to persons in the economically weaker section.
- vi) Provision of houses and flats (on rent, purchase or cash-down) to the low-income group.
- vii) Allotment of land to co-operative housing societies.
- viii) Provision of self-financing schemes.
- ix) Provision of J.J. tenements (juggi and jhopra- a house of low quality, made of katcha bricks, bamboo and straw).
- x) Creation of new satellite townships outside the metropolis.

3.037 In its efforts to rehouse slum dwellers, the DDA has built a number of low-cost apartments, the so-called Janta (public) flats which were heavily subsidised to accommodate the people in economically weaker section. The public flats consist of one and two-roomed units. In addition to these programmes, the policy of acquisition, development and disposal of developed plots was a major component of the Delhi Development Plan. The Development Plan was considered the 'Delhi Model' and it was applied in the other growing cities of the country. The Delhi Model which is based on the policy of large-scale acquisition, development and disposal of land, and has been suggested to apply to the development of other growing cities in the country, shall be reviewed critically in the following subsections.

Delhi Model of Urbanisation.

3.038 In order to redeem Delhi from its worsening situation an interim General Plan was prepared. The very first task of DDA was the preparation of a Master Plan (1961-1982) and promoting and securing the development of Delhi accordingly with the implementation of the interim Development Plan of Delhi. One of the important objective of the Master Plan of Delhi was to make housing available to all sections of the community. At the same time the DDA also considered the formulation of an appropriate urban land policy which would make a sufficient quantity of urban land available, as an important policy measure for the implementation of the Delhi Master Plan. The Master Plan prepared with the assistance of a Ford Foundation team from America headed by Gerald Breese and Bert Hoselitz, was approved by the Government of India in 1962. The Master Plan intended to correct the haphazard growth of the past and to promote planned growth during 1961-1982. The Master Plan also included a Land Use Plan for urban Delhi to find solutions for the entire complex of interrelated social, economic and governmental (management) problems. According to Abhijit (1984) " For the first time in the history of urban development in India a progressive urban land policy was announced by the Union Government indicating modalities of the scheme of large scale acquisition, development and disposal of land in Delhi. It aimed at balanced and integrated development to take care of both present and future growth up to 1982."

3.039 The main objective of land policy announced in 1961, for Delhi, consists of a concept, based on the formation of a landbank through nationalisation of land by a public authority and undertaking development in urban areas, by use of nationalised land as a resource through the revolving fund technique. Thus to facilitate the implementation of the Master Plan, sanctioned in 1962, Rabeiro (1982) says " The government of India announced a scheme for large-scale Acquisition, Development and Disposal of Land in Delhi". The main objectives of this scheme, Rabeiro further describes, were " to lay down a clear and national land policy consistent with the socio-economic and physical needs of the city and to prevent speculative and other unhealthy transactions in land; to provide developed and undeveloped land for bonafide residential, industrial, commercial and institutional use and to ensure a systematic distribution of land through the prescribed land use pattern." The land use plan sought to promote a spatial pattern having a positive relationship between the workplace and residence. Under this scheme, the land required for further urban development was to be acquired by the Delhi Administration, under the Land Acquisition Act 1957. It was proposed that, after acquiring the required land, the DDA would subdivide the acquired land and develop it by providing the necessary services like, roads, water, sanitation and electric services.

3.040 Various-sized residential plots were allowed under the Master Plan, viz: 67 sq m for low-income groups, 105 sq m

for middle-income groups and 167 sq m for high-income groups. Howland (1975) says " alternative land allotments were to be reserved for the families whose land has been acquired and the size varied from 105 to 669 square metres." For the purpose of alternative allotments a special census of squatter families was conducted in 1960, and the families covered by the census were to be provided with alternative accommodation. The occupants (covered by the census) were called 'eligible'. Occupants other than 'eligible' (known as ineligible) were evicted from the plots without any provision of alternative allotments. Under the 'large scale' scheme mentioned above, a general policy for the disposal of serviced plots was laid down which stated that the total land disposed in serviced plots to LIG, MIG and HIG respectively should be on the ratio of 50 : 30 : 20.

3.041 For the implementation of a general policy the Delhi Development Authority disposed of the serviced plots by auction to the HIG, at the cost of development to the MIG, and at subsidised rates to the LIG. Considering the importance of the 'Delhi Model', the author intends to assess thoroughly the policy of acquisition, development and disposal of land, in order to establish the relationship between the success and the failure of the scheme.

Land Aquisition.

3.042 At the start of the Delhi Master Plan the urbanised area of 173 sq km was to be enlarged to about 448 sq km by 1981, including the areas already built up, which means an additional 275 sq km of land were to be acquired for various land uses to accommodate the projected population of 4.6 M in Delhi in 1981. The estimated residential land proved to be less since the population in 1981 exceeded the plan's projection by nearly 1.6 M. According to Abhijit (1984) "By April 1980 about 195 sq km of land were acquired, some 79 sq km short of requirements, and the development of residential, industrial and commercial uses was substantially below the target requirements." The process, from notification and freezing of land to the actual possession for planned growth, has not been as rapid as desired in the Delhi Development Plan. (See Table 3.10).

Land Development.

3.043 From Table 3.11 it is clear that, whatever land was acquired for the development of the urban area, it could not be developed during the plan period. Only 143 sq km of acquired land had been developed, whereas the total land envisaged in the Plan to be developed was 274 sq km. Some 11.30 sq km of land were in various stages of development.

Table 3.10 Development of Land for Residential, Industrial and Commercial Uses in Delhi, 1977-78.

Utilisation	Area envisaged in Delhi Plan (sq km)	Area actually developed (sq km)	Shortfall of Area (sq km) %	
Residential	121	54	67	55.37
Industrial	19	9	10	52.63
Commercial	8	1	7	87.50
Government	2	2	0	00.00
Institutional	23	23	0	00.00
Recreation	101	25	76	75.25
Total	274	114	160	58.39

Sources: Abhijit, Datta and Gangadhar, Jha 1984, p.p 69-70.

Third World Planning Review Volume, 9 No. 2, 1987 p. 108.

Table 3.11 Proposed and Achieved Land Development in Delhi up to 1982.

Land use	A Area to be developed (km)	B Area developed (km)	C Area under development (km)	D (*) Achievement made %
Residential	121	73	8	67.0
Industrial	19	11	2	68.4
Commercial	8	9	1	125.0
Government	25	25	0.30	101.2
Institutions				
Recreational	101	25	n.a	24.7
Total	274	143	11.30	56.3

(D). Indicates the percentage of achieved development to the total area intended for future development.

Therefore $D = B + C / A$ Multiplied by 100.

Source: Third World Planning Review Volume 9, No.2, 1987.

Furthermore the slow pace of development and disposal of acquired land, coupled with an accelerated rate of migration has led to the formation of illegal settlements on a large scale. According to Abhijit (1984) " About 0.6 M people are presently residing in such (illegal) colonies or settlements which occupy an area of 7500 acres." (30 sq km).

From tables 3.10 and 3.11 it seems that the process of acquisition and development for planned growth in the city has not proceeded as rapidly as described in the Master Plan at the time of policy formulation. The urban land policy and Delhi Master Plan were supposed to prevent this kind of trend.

Distribution Pattern of Developed Land in Delhi Metropolis

3.044 One of the objectives of the Urban Land Policy, being the major component of the Master Plan of Delhi, was the supply (disposal) of suitable developed land e.g 50% to Low Income Group (LIG), 30% to Middle Income Group (MIG) and the remaining 20% of developed land to High Income Group (HIG). The way in which policy for acquisition, development and disposal of land (plots) was executed by Delhi Development Authority illustrates that the supply of developed land to LIG and MIG was unsatisfactory. The number of developed plots auctioned for HIG exceeded the total number of plots allotted to LIG and MIG. According to Abhijit 1984 " Between 1960-61 and 1970-71, Delhi's high-income group was given as

much as 49.8% of the total plots through auction", (This group was supposed to receive 20% of total) " those whose land was acquired (alternative allottees) were given 14% and the middle-income group and low-income group were allotted only 24.7% and 11.5% of the total plots respectively."

3.045 According to Ballabh (1987) " Up to 1975, only about 1700 plots out of the 14000 total were allotted to LIG resulting in a ratio of 12 : 23 : 51 among the LIG, MIG and HIG respectively." The remaining 14% of the total allotted plots was reserved for the alternative allottees. This shows that once again the HIG was given one-and-half times more than the plots allotted to MIG and LIG. The distribution ratio of residential plots for LIG and MIG reduced more sharply- it was, Ballabh (1987) says " in the ratio of 6.5 : 4.6 : 68.8 among the LIG, MIG and HIG respectively." At that time the remaining 20% of total residential plots was allotted to alternative allottees. Acharya (1988) gives the details of plot distribution as follows: " Up to June 1982 a total of 33 K plots had been distributed (14.6 K to LIG, 5.8 K to MIG, 9.6 K to HIG and 2.6 K as alternative allotment." (See Table 3.12) In a further attempt to solve the problems of the urban poor, the Delhi Development Authority had distributed 19.8 K plots (mostly of 21 sq m each) to those urban poor who were relocated in forty-four resettlement colonies. But these plots were financed outside the framework of the revolving fund. Acharya (1988) comments "the

annual average number of plots disposed of by the DDA during the 1961-1982 period is only about 570, in contrast to the stipulated figure of 5000."

Table 3.12 Distribution of Land (Plots) Between Different Categories in Delhi Metropolitan Area.

Category	Land to be Distributed		distributed Area (%)
	Number of plots	Area (sq km)	
High income (Auction)	9570	243	47.0
Middle income	5820	109	21.0
Low income group	14669	108	21.0
Alternative	2950	56	11.0
Total	33009	516	100.0

The alternative category means those people whose land was acquired for the purpose of development under land policy.

Sources: Third World Planning Review Volume 9 No.2 1987.

Acharya (1988) Environment and Planning Vol. 20.

3.046 It is clear from Table 3.12 that 47% of the residential land has been allotted to HIG; 21% of land to MIG; 21% to LIG; and 11% to alternative allottees. This proportion of plot distribution shows that 58% of the total plots have been allotted to HIG and alternative allottees, which is a substantially higher proportion than that actually recommended for these groups in the Urban Land

Policy for acquisition, development and disposal of land. This distribution pattern confirms improper implementation of the Urban Land Policy for distribution of land proposed in the Delhi Model of Urbanisation. This inadequate supply of plots in addition to the high land-prices has restricted the chances of the poor to buy land, so pushing them to the fringes even farther away from the workplaces; and this has encouraged haphazard development in contrast to the spirit of the Master Plan. According to Acharya (1988) " they gave rise to an increase in the number of unauthorised colonies to about 600 in 1982 from a figure of 130 in the 1960-1961 period."

3.047 The establishment of satellite towns and of the new urban communities to house small industries in order to shift or decentralise population, major activities from primate cities, and to provide job opportunities for resettled population is a very well known weapon in the armoury of the town planners in the developing countries. Applying this tool for solving the city's problems, the Master Plan for Delhi prepared in 1962, itself contained proposals for the development of seven satellite towns around the metropolis. The purpose of development of these satellite towns was to decentralise population, facilities and other activities from already congested and overloaded metropolitan area. The same point has again been made in the

proposed amendment and approved by the Delhi Planning Board in 1973.

3.048 For implementation of policy for development of new urban communities, the local authorities decided to develop the New Okhla Industrial Development Area (NOIDA). It is located to the east of the River Yamuna some 12 km south-east from the Connaught Place shopping centre of New Delhi. In order to develop the industrial township, a single Authority was established which is responsible for all the planning aspects of the township development, including the provision and maintenance of its civic amenities and infrastructure. Although primarily created to promote industrial growth, a major task of the authority relates to providing housing and basic amenities for those who are working in the urban area. During 1976-1979, the first phase in the growth of NOIDA, some 4546 industrial plots were developed and around 1112 industrial sheds were constructed. The industries deal mainly with electronics, engineering and manufacture of garments. Several small units deal with printing, packaging and food products which provide job opportunities for low-skilled people in the area. Throughout the process of design and construction, the emphasis has been on the promotion of pollution-free industries.

3.049 In 1983, considering the success in the initial phase of the development of township, the authorities prepared a

Master Plan for the implementation of Phase 2 in the years 1983-2001. The Master Plan NOIDA 2001, envisages the development of a self-contained, socially balanced and well designed community with an average density of 25 persons per hectare. Phase 2 consists of land distribution pattern and development of plots for the residential, industrial and commercial, and institutional purposes. In order to control illegal expansion (growth) of township, the Authority has restricted the allocation of land and houses to certain categories such as: villagers whose lands have been acquired, industrialists, members of industrial work force, people who established commercial premises, schools, hospitals, and finally direct employees of the Authority.

3.050 To solve the problems of economically weaker groups, the Authority is responsible for the construction of houses and flats. The one and two-roomed dwellings built by the authority are made available to the poor in single, double and triple storey blocks. Houses and flats built for this group are heavily subsidised by NOIDA to bring them within reach of the poor. Other housing initiatives take the form of allocation of developed plots varying between 112.5 and 450 sq m to the middle and higher-income groups who can afford to construct their own houses on them. In the case of building own houses, construction has to comply with the Building By-Laws of the NOIDA.

Summary and Conclusion.

3.051 In view of the aims described in the beginning of this chapter, after reviewing available information about the problems of the urban poor, and the implementation of policies adopted and schemes executed by the Government of India at different levels, particularly at metropolitan level in Delhi, the author has learned that:

3.052 Due to rapid processes of urbanisation, growth of natural population, and uncontrolled and unchecked migration, the number of low-income housing areas is increasing (certainly will increase) in the country as a whole, particularly in Delhi. According to one estimate, by 1990, in Delhi the proportion of slum dwellers will increase by 7.8% as compared to 25% in 1981. Increase in the urban population has affected land prices, increased shortage of decent housing, and has put high pressures on infrastructure and social services in the urban areas. Because of high prices of land and housing, the urban poor cannot afford to purchase or rent the houses in the formal sectors nor due to their limited earnings can they repay the heavy costs of houses and charges for services provided by the government. They are pushed far away from central and other planned areas of the cities, and are encouraged to acquire a piece of land by different means, build their own houses and make improvements according to their modest needs and incomes.

Large investments are arranged by the urban poor themselves from informal sources. These informal sources include personal savings, borrowing from within the extended family, trade credit and also through so-called rotating credit societies. The author has further learned that at present some 35 M - 40 M people are living in self-built settlements of India, (in Delhi alone some 5 M people are living in more than 612 unauthorised settlements), exposed to poor sanitation conditions. Large numbers of people are living in small spaces- one or two-roomed dwelling units. They lack most of the basic amenities and facilities- bath, latrine, kitchen, water supply, sewer, electricity and refuse collection. The residents lack education, health, recreation facilities along with the opportunities for jobs in these low-income housing areas.

3:053 Regarding the policies for reducing the problems of slums, no doubt from time to time, a number of programmes have been prepared and various schemes have been executed by the Indian government at national and metropolitan level. These programmes include establishment of Planning and Administrative Departments, policies for the Rehabilitation of Refugees, Squatters and Slum Resettlement and preparation of Master Plans. The Plans for large cities, including Delhi, have been prepared with assistance from foreign experts to tackle the increasing problems of human settlements in India, particularly in Delhi. The plans have

proposed a variety of programmes and schemes for construction of public sector housing (mostly of one or two rooms), in squatter and slum resettlement colonies, upgrading conditions in existing slums, and provision of site-and-services in order to improve the environment in low income settlements within the metropolis. Review of the Delhi Model of Urbanisation based on a policy for large-scale acquisition, development and disposal of land for planned urban growth has shown that the model has failed to achieve those objectives which were proposed in the Master Plan for Delhi Metropolitan Area. At the time of the Urban Development Plan, a minimum plot size of 67 sq m was specially recommended for LIG. At the time of allotment, many of these plots were occupied by MIG, because the high price of land made it unsuitable for LIGs. Because there was a shortage of land for MIG, therefore, many plots of 67 sq m were sold by LIG to MIG illegally, who were satisfied with the size of these plots. Delhi Development Authority (1982) declares "In view of such pressures on land, the minimum plot size had to be reduced twice during the plan period, first to 33.5 sq m and further to 21 sq m." The process of acquisition, development and disposal of land for planned growth in the city has not proceeded as rapidly and as it was described in the Master Plan at the time of policy formulation, nor in accordance with the income-group distribution envisaged. The slow pace of acquisition and development of land, and maldistribution of developed land

confirm the inadequate implementation; in other words, failure of the policies for solving the problems of the urban poor. On the contrary, this has helped the development of new low-income housing areas and transformation of existing ones into slums in India, and in the capital city in particular.

3.054 From the information available it is also clear that the institutions do favour only those who already have a good status and can afford to pay back the full amount in large instalments to housing corporations and commercial banks. Until and unless the poor person acquires some source of income or secured property, he is bound in poverty and cannot avail himself of loan facilities. Hence if the government of India wants the problems relevant to housing to be tackled properly, along with other problems relating to the slum dwellers, then the present policies relating to housing and slum improvement must be seriously reconsidered. However, it is suggested that a policy should be formulated which considers not only the housing which urban poor can afford but also shall provide opportunities for the urban poor to develop their social and economic status and that of the future generation.

EGYPT.

3.055 Egypt, after the union with Syria in February 1958, was called the United Arab Republic. Following the dissolution of that union in September 1961, adopted the style Arab Republic of Egypt. It lies in the desert belt which stretches across the northern hemisphere from the Atlantic Ocean through Arabia and Iran to the heart of China. This desert belt forms the main habitat of the Islamic peoples. Although Egypt has a total area of 1.2 M sq km, only 4% of that is arable land, and all that arable land is confined to the narrow strip on either side of the River Nile where the majority of Egyptians live and into which Cairo, the capital of the country is expanding faster.

3.056 At the beginning of the nineteenth century, Egypt entered into a period of rapid transformation which revolutionised its entire economic, social, and governmental structure within a relatively short time. In 1866 the port of Alexandria was developed and its capacity enlarged. Due to this, the Suez Canal was opened for international traffic. A large number of steamships called at Egyptian ports. Modern commercial and mortgage banks were established and experienced a spectacular growth in the mid-1960s. One of the most important developments which took place during the nineteenth century was a very rapid population growth. This phenomenon has continued to the present day. Like other developing countries, Egypt is faced with the problems of

over-population, unchecked rural-urban migration, rapid growth of urban population, oversized urban centres, mounting demands for housing, high pressures on the services, strained infrastructure, and socio-political unrest in the country.

Population Growth.

3.057 Egypt is one of the developing countries which, in the nineteenth century, entered a period of demographic transition i.e. their population started growing at a rapid pace. According to Chiri (1985) " Its population is 48 M crowded into the relatively narrow valley of the Nile and its Delta. About half of the country's population is in urban areas, more than 20% in Cairo alone." The growth of population is illustrated in the table below which shows clearly the acceleration in the rate of growth that took place in Egypt, as in so many underdeveloped countries.

Table 3.13 Growth of population in Egypt 1907-2000.

Year	Population (M)
1907	11.2
1917	12.7
1927	14.2
1937	15.9
1947	19.0
1960	26.0
1976	36.6
1980	42.0
1982	45.0
1985	48.0
2000	56.0

Sources. Review of literature and Muhamed M.El-Sioufi (1982)

Urban Population Growth.

3.058 The recent studies show that the natural population growth rate is 2.4% per year for all Egypt, in urban areas it is about 2% only, but due to the continuous migration from rural to bigger urban areas such as Cairo and Alexandria in particular, the population growth rate in these urban areas is 4% per year. (Chiri, 1985)

Housing and Relevant Problems in Egypt.

3.059 On the one hand rapid population growth has badly affected the problems of the labour force and unemployment; and on the other hand, its consequences (even more obviously) have put pressure on the country's infrastructure. This pressure is ever present in daily life, affecting everything from telephones to urban transportation, from railways to the road network, from drainage to running water, and housing conditions first and foremost. As more and more people enter into the large cities in Egypt, the demand on urban housing increases and the task of accommodating all citizens in adequate shelter becomes more and more difficult for the authorities concerned. In the opinion of Roberto (1984) "Housing is a particularly difficult problem in Egypt and the situation has been worsened by migration towards the main urban centres (Cairo and Alexandria)." Fadil (1981) says "housing as a major problem is apparent from the fact that the number of those living in tents on

rooftops or in the cemetery ("The City of the Dead") was put at above 1 M."

3.060 A large proportion of the population is still very poor and lives in miserable conditions e.g majority of families live in a single room. Egypt has a dramatic and increasing shortage of urban housing which affects the middle, low, and lowest-income communities in particular. This increase in demand for, and shortage in supply of, adequate shelter is due to several factors acting together:

1. increase in the country's population.
2. migration of excess population from rural to urban areas.
3. rapid growth of urban population.
4. lack of and / or limited economic resources of the government, and of the urban low-income community.
5. inability of poor people to afford public housing.
6. shortage of skilled and semi-skilled labour.
7. reduced willingness of the private sector to invest in housing for the low-income group in particular.

3.061 The studies related to housing shortage in Egypt, show that since 1960, the country is continuously facing problems of housing at national level, in the urban areas, and particularly within the large cities of the country. Egypt

has great difficulty in providing decent shelter along with basic service facilities and jobs to the high proportion of urban poor population, and those in particular who have moved from their native place of residence to the bigger cities, in search of better accommodation, education, health and economic resources.

3.062 The studies done by El-Sioufi (1982) and Chiri (1985) confirmed that " Officially the shortage of housing was placed at 1.5 M dwelling units in all Egypt." Keeping in view the present shortage in urban housing (e.g 1.5 M units) Chiri estimates "Egypt will need 3.6 M units, at an annual rate of 240 K units, in addition to the 100 K units per year required to cover the present shortage." The experience shows that only 492 K dwelling units were officially built in the past three years, at an annual rate of 164 K units.

3.063 It is clear from this rate of production (supply) of housing units that the present rate of production can neither eliminate the deficit in the housing stock nor will it help the great demand for accommodating large numbers of urban poor in adequate shelter.

Infrastructure.

3.064 Due mainly to the rapid population growth and its various consequences, Egypt's present infrastructure is completely inadequate for the present population. It needs urgent attention to make it adequate for present and future

needs. In the view of Roberto (1984) " The rapid population growth has shown that the existing infrastructure is far less than adequate, and in fact enormous public expenditure programmes will be necessary to provide even a basic level of infrastructure for the year 2000."

Water supply and Sanitation.

3:065 Drainage is still a great weakness. Main drains are available everywhere, but they need deepening and more pumps, while field drains are inadequate, and moreover are difficult to connect with the main collectors through neighbouring plots.

Social Services.

3.066 Apart from a few large cities, health conditions in Egypt are among the worst in the world. In spite of the progress achieved due to hygiene and health facilities, poor health, perhaps more than any other single factor, is responsible for the wretchedness of the peasants in Egypt.

Health conditions continue to be very poor. In 1960, there was a total of 32 K beds in all Government and private hospitals, or one for every 800 inhabitants. One of the main obstacles to progress was the shortage of doctors. Egypt's modern social structure is much similar to that which is common in many Third World countries, for instance Iran, Pakistan, India, Mexico, Nigeria and Indonesia.

Economic Conditions.

Unemployment and Underemployment.

3.067 World War II eliminated temporarily the problem of unemployment, only to make things much worse in the long term. The demand for manpower to staff the large number of military workshops established by the Allies and a large local industry which arose as a substitute for the shrinkage of imports accelerated the movement of people from rural areas to towns. This led to a further crowding of the slums, especially since little new construction had been undertaken.

3.068 The overpopulation may also be approached from the angle of underemployment. In Egyptian cities there are many forms of disguised unemployment. After World War II, a relatively small proportion of the new urban population was absorbed in newly established large-scale modern industry. In agriculture there is the threefold phenomenon of seasonal unemployment, due to small size of farms, and disguised unemployment owing to the fragmentation of farms and the consequent increase in work, e.g. walking from one plot to the other.

Poverty.

3.069 Egypt's poverty is reflected in her badly under-developed human resources. The following factors had helped in the creation of poverty.

a) One consequence is the ever-widening gap between the techniques used in everyday life.

b) Another consequence is the ever-growing scale of contemporary industry and the ever-greater volume of resources required.

c) The third consequence is Egypt's dependency on mostly the developed countries for their machinery and research, and these are designed primarily to meet the needs of developed countries, with their very different 'factor mix'. Roberto (1984) says "The number of families and individuals receiving an income considered to be below the poverty line fell between the end of the 1950s and the mid-1960s. Since then however, this number has risen dramatically in Egypt."

Policies and Programmes Adopted for Solving Problems.

3.070 The housing policies in Egypt are prepared and implemented by the Ministry of Housing and the Ministry of Reconstruction and New Communities. The Ministries concerned produce finished housing units built by the public sector Construction Companies (coordinated through the General

Organisation for Housing) and financed by low-interest loans from the Bank of Housing and Reconstruction. The built units are let to the users for heavily subsidised rents. During the early years of the century, several commendable programmes for the modernisation of Egypt's educational system and for the creation of public housing and basic services for the entire population were indicated. The government initiated programmes for housing and services in the bigger cities particularly in Cairo, the capital and educational, social and cultural centre of the country. To many people at that time, the symbol of success was to live in Cairo and Alexandria, because these two cities were considered to be the commercial and social centres of the country. With the creation of new industrial centres and the swelling of already overcrowded cities, there has been an extreme shortage of adequate, low-cost living accommodation.

3.071 Some attempts have been made to overcome the problems of human settlement by applying various schemes of housing and of basic services. In 1949, Egypt's Government had initiated a scheme to provide low-cost housing for workers. Under this scheme, the Government granted generous subsidies for the construction of low-cost housing units to various official and semi-official organisations. The only places to benefit from this policy were the major Municipalities of Cairo, Alexandria, and (after the Anglo-French attack) Port Said.

3.072 Issawi (1963) says "In 1959, it was estimated that there were 1.8 M urban dwellings and that 60 K dwelling units should be built each year to meet required dwellings for an estimated population growth of 2.5% per annum." In 1960 about 13.1 K such houses were built, and attempts were being made to encourage the building of middle-class housing by various ministries, municipalities, co-operatives and construction companies.

3.073 In the past the Government tried to alleviate the problem by creating 'large popular housing schemes' in the existing cities. In keeping with the Government's wishes, most of the popular housing was to be channeled through the Construction Company established in 1953. The company, with the assistance of governmental agencies, undertook the construction of a variety of projects: homes for railroad workers, fashionable flats for police officials, popular houses near Cairo, accommodation for students of Al-Azhar University, and new quarters for petroleum workers at the Suez Canal.

3.074 In another effort to produce more housing units in the country, the Government of Egypt encouraged the development of Housing Co-operatives. For this purpose, about fifteen co-operative societies, including one for army officers and one for police officers were registered with the Ministry of Social Affairs. Under this programme of housing construction, the applicants were required to make a down

payment of 40% of cost, and for the remaining 60% to be guaranteed by Government. In 1956 the Government launched a scheme for the provision of adequate field drainage for the whole country which required twenty-one years to complete.

3.075 In the early 1970s, the Government of Egypt introduced prefabricated industries in the country on a large scale. Under this programme, the government of Egypt purchased the first large-panel prefabrication factory from East Germany in 1972. The government initiated its prefabricated housing programme in 1974, and more large-panel prefabrication factories were purchased from different European countries, for public construction companies. According to Chiri (1985) "In 1978, the number of prefabrication factories in Egypt, was eleven with a planned capacity of more than 20 K housing units per year, but only three factories were operational and a few hundred housing units were erected."

3.076 Reasons for the failure of this prefabricated housing programme in Egypt are as follows:

1. This programme required heavy equipment for production, transportation and erection of houses on the proposed sites.
2. The construction of houses by prefabrication factories required the highest usage of major construction materials such as cement and steel.
3. The construction, transportation and erection of houses required a well trained and highly skilled workforce which did not exist in Egypt at that time.

4. At the same time, the demand for special categories of workers displaced the lower-skilled category of workers from the site.

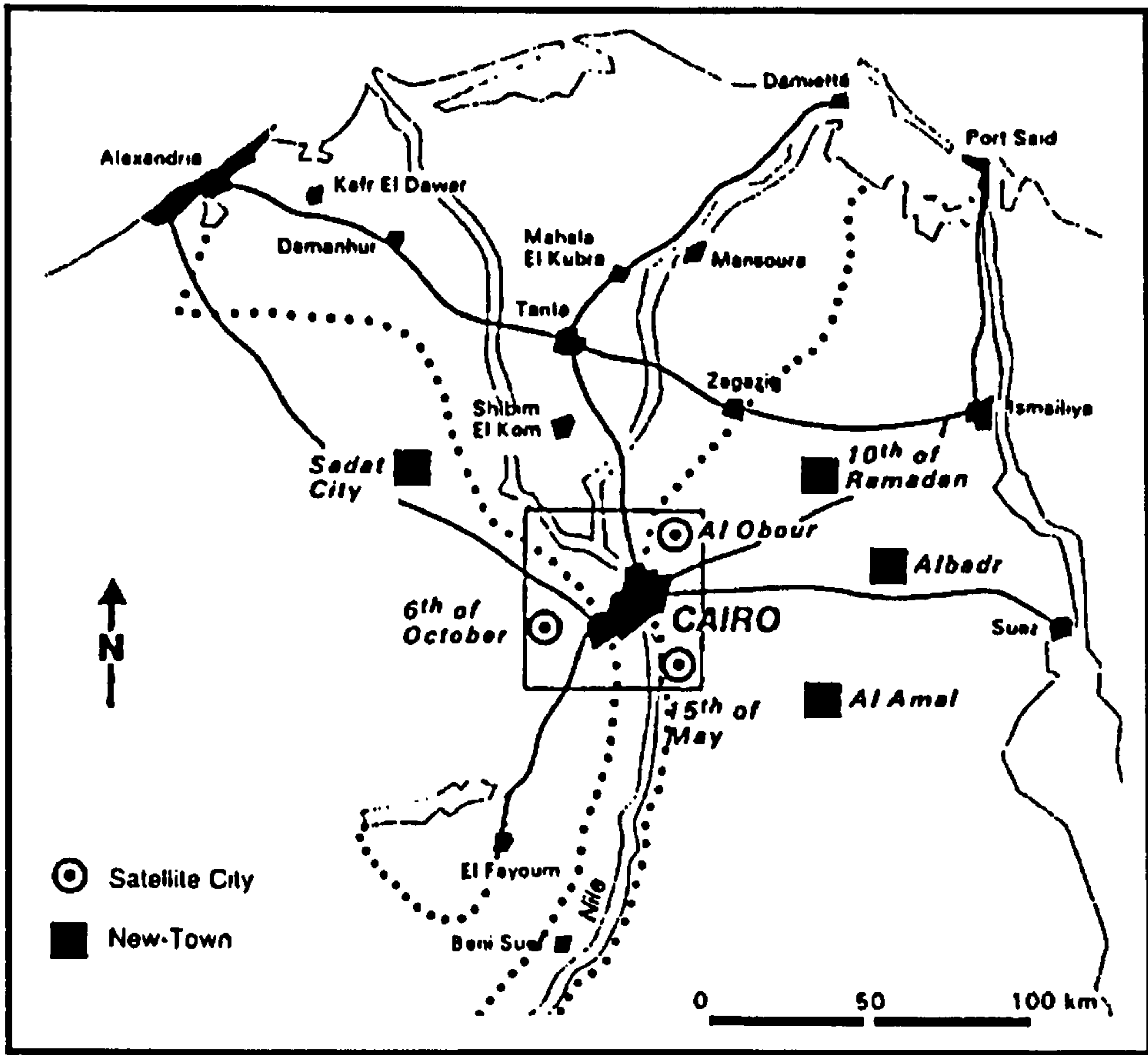
5. Due to reasons mentioned above, the cost of housing was increased, the poor could not afford to occupy houses built by this process, and most people of low-income group lost their jobs.

3.077 After the war with Israel (1967), since the opening of the Suez Canal, and the reconstruction of Port-Said and Ismailia, until the early 1970s, no new settlement was officially developed in Egypt, with the exception of Heliopolis, Maadi and Medinet Nasr (all suburbs of Cairo—the capital of the country). But the natural growth of population, migration from rural to urban areas particularly to the large cities, and trend of losing productive land to non-agricultural purposes caused the government of Egypt to realise the problems, and to adopt the spatial planning policies based on development away from the large cities. The government of Egypt recognised the serious nature of the housing and other relevant problems in the country. In order to solve the problems, the Government decided to commission Master Plans for Alexandria, Cairo, Ismailia, Port-Said and Suez. Master Plans spasmodically implemented since 1970s, suggest the development of desert (unutilized land) area. The plans proposed establishment of industries, provision of infrastructure and resettlement of people in the newly

developed townships outside already overcrowded and congested cities.

3.078 Anwar El-Sadat the President of Egypt responded to the problems. In 1974, the president of Egypt said "I believe it is time for drawing up a new map for Egypt. This cannot be achieved by setting up scattered projects here and there, it can be done by creating areas for population concentration and new economic activities able to equal the pulling power of the capital." The president announced the development of new cities by further saying " It has become important for Egypt to carry out new projects for the establishment of new cities."

3.079 In order to decentralise the population and service facilities from the large cities, and to implement the programmes for development of New Communities, in accordance with the President's policy, the Government of Egypt and State governorates initiated development programmes of New Cities and several Site-and-Services projects (based on core housing) at a convenient distance from the large cities of Asyut, Alexandria, Cairo and Ismailia. Some of them notably 10th of Ramadan City, Sadat City, Al Badr and Al Amal were intended to form free-standing New Towns as poles of attraction in competition with Cairo. (see Figure 3.1) The officials implementing the strategy have referred to and adopted the British New Towns concept. Sadat City is midway between Cairo and Alexandria within one-hour drive from both



SOURCE: OPEN HOUSE INTERNATIONAL, VOLUME 16, NUMBER 13, 1991.
 AUTHOR NICHOLAS W., et al, DEVELOPMENT WITHIN DEVELOPMENT

biggest cities of Egypt. It is the second independent City, after the 10th Ramadan New City, dedicated on 29 May 1977. Fading (1988) confirms that 10th Ramadan, the new city sprouting about 48 km south east of Cairo, along the road to Ismailia, had about 8.5 K residents in 1986; whereas Sadat City, about 72 km north west of Cairo, along the road to Alexandria, had fewer than 2 K residents in the same year.

3.080 The government of Egypt decided to prepare a Master Plan for Ismailia. The project was administered by Egyptian Advisory Committee for Reconstruction and United Nations Development Programme, and was supported by British Overseas Development Administration in 1976-1977. The result was a Plan having reasonable influence on the distribution of national government investment, and some influence on local physical planning within the estates. The Project contained proposals for upgrading existing plans and for the detailed design of a pilot project within the context of the Master Plan. This was based on the factor of design for continued employment and new housing by Sites-and-Services.

3.081 The Third stage of the project involved technical assistance by the consultants to the governorate to assist in the implementation of the Master Plan and the pilot project. To make the technical assistance scheme effective the ODA provided a grant of UK £ 100 K as seed money which could be used with some flexibility to help put the projects into a self-financing basis. The programme funded by the

Overseas Development Administration of the United Kingdom took an opportunity to convey the message that there were alternatives including upgrading and need to conserve the existing housing stocks which could be introduced as part of the National and Governorates housing strategy to complement the existing methods of public housing of 5-storey walk-up flats.

3.082 Thus, through the Technical Assistance Programme the Kabbutti Upgrading project in Port-Said was designed to improve the living conditions of the poorest group of the area. The strategy proposed a policy of minimal disruption and for introducing new and improved services such as roads, liquid and solid waste disposal and water supply to the villagers, and creating some 400 site and service plots on land adjacent to the existing village. Based on surveys and studies which were carried out in the village and with the Governorate, District and Village Councils, the Plan ultimately envisaged the following:

1. integration of the village into the general fabric of Port Said;
2. consolidation of the village, with most available space to be subdivided and used for plots;
3. land filling,
4. a network of small village roads (defining developmental blocks);
5. network of serviced footpaths;

6. piped water by individual connection or communal standpipes;
7. registration of everyone in the village to ensure equitability and identification of priority households;
8. eventual connections to sewerage system;
9. the scheme to be self-financing by sale of plots based on affordability, with stated priorities;

3.083 The improvement of the area was to be carried out in the following stages of planning and development:

1. preparation and development of unoccupied and under-occupied land.
2. improvement works to existing areas including establishment of rights of way and improving basic utilities.
3. improvement works by residents themselves to raise plot level, upgrade houses, and where possible to connect to new or improved utilities.
4. construction of new community facilities ranging from schools and social services to refuse collection.
5. subdivision and regularisation of tenure.
6. construction of improved roads and sewerage network.

3.084 In view of the development stages mentioned above, the programme for Upgrading and Site and Services outlined the responsibilities of both Governorate and utility agencies, and emphasised the need for coordination, whilst recognising the very limited home-grown resources available to project.

The amount of land identified to be developed and sold to those villagers who were to be relocated due to road or footpath alignments and then to the others was to ensure a positive cash flow to enable a programme for improvement. The Governor recognised the role that upgrading on site and services would play as a tool in estate housing policy, and pledged LE 500 K as inception capital. At the initial stage the Kabbutti Upgrading Programme had the support of local institutions, from the village council to district council, from the Department of Housing to the Governor himself.

3.085 As soon as the development on first site and services area was started, the central government promulgated a new planning regulation. To abide by this regulation, the project team had to re-plan the relocation areas, and to take these plans to Cairo in order to convince Central Government. The imposed regulations were finally waived; this took nearly one year. Despite disagreements between the Governorate, utility agencies and the Central Government according to Rowland (1985) "Investment in their houses is happening more and more as local people build. But maybe this is a more real situation and will therefore take a long time to reach the desired end result."

Cairo Metropolitan Area.

3.086 Cairo, a vast conurbation covering an area of 128 sq km, estimated to shelter some 8 M inhabitants is the largest city in Africa and the Middle East. The existing city is geographically divided into two banks, East and West, by the River Nile. Cairo, in Arabic known as Al Qahira or 'The Conqueror' was the name of a section of the garrison city founded as recently as 1000 years ago by the Fatimid conquerors of Egypt and mistaken for the whole by an Italian merchant of the time. According to Fading (1988) "Cairo was once a beautiful place- the Turk Mamelukes' elegant mosques, schools, inns and tombs so impressed the Moroccan writer Ibn Battuta in the 1300s that he dubbed it 'mother of cities- boundless in the multitude of buildings, peerless in beauty and splendour'."

3.087 In the nineteenth century the Abanian, Sultan Muhammed Ali, and his grandson Ismail pushed Cairo westwards to the banks of the Nile. Egyptians and Europeans continued expansion under British colonial rule, and created exclusive suburbs for the rich such as Zamalek and Heliopolis. These areas remain prosperous, although no part of Cairo can be called exclusive today. Under a series of successive dynasties in the Middle Ages, Cairo grew into a metropolis as magnificent as those great urban centres of the North East, Damascus and Baghdad.

3.088 Presently, it is the capital of the country, the cultural, educational, intellectual and religious centre of the Arab world and one of the world's most densely populated cities. Cairo, with its cinemas, coffee houses, and many other diversions, is considered to be a veritable Mecca by Egyptians. The magnetism of the city (Cairo) is reinforced by the need to migrate from the villages. Migrants move into Cairo mainly because, El-Sioufi (1982) says "although on a global scale the standard of living is not especially high there, it is clearly much higher than it is in most of the rest of the country." The centrality of the city is such that they use the same name, Misr, for both capital and the country. Few third world capital cities dominate their countries as Cairo does Egypt. According to Fading (1988) "For Egyptians (and still for Arabs from other countries) Cairo is New York, Washington, Hollywood, Oxbridge and the Vatican combined."

Population Growth in Metropolitan Cairo.

3.089 Between 1917 and 1937 the population of Cairo rose from 0.8 M to 1.3 M and that of Alexandria from 0.4 M to 0.7 M, representing increases of 66% and 55% respectively, compared with 25% for the country as a whole. During World War II, British and American military installations required the services of many Egyptian labourers. This in turn swelled the migration to the cities. During the war period,

migration to the towns was greatly accelerated by the opportunities for employment provided by the Allied Armies. This movement continued after the war, owing to the 'pull' effect of greater industrialisation and construction in the towns and the 'push' effect of increasing population pressure in the countryside. According to Hopwood (1982) "The population of Cairo alone is now thought to be 8 M." Cairo's rapid growth is due both to natural increase and to large-scale migration from the rural areas and after 1967, according to Williams (1985) "from the Canal zone."

3.090 The recent study on population projections of Cairo reveals that the city's population has increased rapidly and presently, according to Fading (1988) "the metropolitan area planned for 2 M people, has more than 10 M by official estimate, and by 2000, it will probably have between 16 and 20 M people." It is difficult to forecast how Cairo will or can develop with an estimated population of 16 M to 20 M in the year 2000. Keeping the fast growth of the metropolis in mind, it is considered that Cairo by a process of osmosis could absorb its increasing population only by degrading living and working environments of human settlements and continuously lowering its standards.

Housing and Relevant Problems in Cairo.

3.091 Any increase in the rural population means an automatic increase in migration to the city and in the city's population. Presently more than 33% of the Cairo's population consists of immigrants. They move into already overcrowded areas, according to Hopwood (1982) "creating a density in some parts of over 260 K to the square mile (New York with its sky scrapers has a density of 25 K per sq mile)." The immigrants move into the poorer areas of the city, increasing congestion and overcrowding. Families live in one-roomed dwelling, build shacks on the roof of existing dwelling, share facilities, or according to Hopwood (1982) "some 1 M of them squat in the tombs and houses of the City of the Dead- a large cemetery", as there is never enough public housing to accommodate the increased numbers of poor people. On the contrary, private developers build only for those who can afford to repay on their investment for high-cost housing. At the roots of Cairo's critical problem is rapid growth of population either by natural increase or migration. Cairo as the national seat of government, the primate city of Egypt and a megalopolis of the third world is growing at 4% per annum. According to Chiri (1985) "more than 500 new migrants crowd into Cairo each day."

3.092 When the growth began, housing was already a problem, but one that was fairly controlled until the early 1950s. Acute shortages began to develop in the late fifties and

early sixties, when attempts at regulations left the private sector unwilling to keep up with demand any longer. Flats in conventional houses are hard to get: rent control laws, in effect for decades, have diminished the incentive to maintain older buildings, which are gradually collapsing. They are replaced either by commercial buildings or by high-rise blocks of flats that most people cannot afford. Cairo is growing and spreading swiftly, with extensive new areas growing up on the peripheries, far away from public transport and poorly served by shops. According to Wikan (1985) " Young people are at a disadvantage- they need work, they need to marry, and they need a house." But in the view of Williams (1985) " The problem of housing is most critical at the lower income levels, and the poor have met the shortage of housing with various clandestine and informal solutions."

3.093 Most of Cairo's other problems are simply exacerbated copies of those facing most Third World capital cities. According to Hopwood (1982) "Housing and transport already lag far behind, the major problem is the over-concentration on Cairo which acts as a magnet for all Egypt." According to an estimate Cairo consumes 27% of the nation's electricity, 40% of vegetables, fruit and meat; it has 33% of doctors, 30% of secondary school students and 58% of graduate civil servants. Besides them, government and most other cultural facilities are located in the capital city.

3.094 Like many other cities in the developing countries, Cairo is being faced with the problem of supplying wastewater services to its population which has been growing rapidly in recent years. In serving a population that is increasing faster, the Cairo wastewater system, which was originally designed for a population of less than 1 million, had been seriously over-used and become out-dated, with deteriorating sanitary conditions throughout much of the city. According to Abu-saada (1989) " Presently, about 66 per cent of the population is served by the existing sewerage system and 34 per cent reside in unsewered areas. The reliability of collection in the sewered areas is reduced due to the general over-loading of the system and inadequate pumping capacity."

3.095 Due to poor maintenance these services are frequently blocked, overflowing and inoperable, which causes flooding, ponding and pollution of entire neighbourhoods. On the other hand, the high cost of services and collection of wastewater in low-income unsewered housing areas discourages the poor people from using a proper sewerage system in these areas and promotes a variety of improper disposal systems e.g pits. In most cases these pits are open to the sky, flooding into streets and resulting in insanitary conditions. Approximately one half of the sewage collected receives partial wastewater treatment. The remaining half, including that collected from unsewered areas, is disposed directly into open drains. These drains eventually discharge into the

Nile River (channelised into two branches) resulting in degradation of water quality.

Low-income Settlements and Slums in Metropolitan Cairo.

3.096 The term "informal settlement" has come to be used to refer to those communities in Egypt, built around Cairo in violation of the rules and regulations that have been promulgated by the government in a vain effort to control urban expansion. The illegality of these settlements deprives their residents of basic services such as water, sewerage, electricity and public transportation. In Cairo, thousands of people live in and among its tombs, because housing there is cheap and more close to work.

3.097 It is common practice in Cairo, when migrants move into the city, that single houses are converted into tenements; extra storeys are built onto the roof of existing buildings, and instead of spending one or two months with relatives, newcomers settle in for long periods creating overcrowding and putting extraordinary pressure on existing service facilities. The urban poor have created a city of roof dwellers who build rooms and shacks, complete with poultry runs on the roofs of buildings. According to Aldridge (1970) "obviously these rooftop slums are mostly servant's quarters, but in the old city at least they are the byproduct of overcrowding." Sharing her experience, Wikan (1980) further describes the conditions that exist in

the tomb cities- "in short the medieval core is an area of social segregation of extraordinarily high population densities, of clandestine housing arrangements, in substandard, structurally unsound buildings frequently without water, electricity, adequate garbage disposal or sanitation." According to El-Sioufi (1982) " Between 1973 and 1978 these settlements accounted for 76% of all new housing built in greater Cairo. Most of the expansion of Cairo to the north, west, and south consists entirely of illegal housing."

3.098 All low-income people prefer the low-cost housing units provided by government, but since the government cannot afford to build houses on a large scale to provide shelter to the needy people who constitute a high proportion of the low-income group. Hence according to Chiri (1985) "the informal housing in Egypt will continue, probably increase, as an illegal contribution of the private sector to the solution of the housing problem in Egypt." According to Williams (1985) " the number of people who live in tomb cities is estimated to be about half a million." It is considered that due to the high rates of a) urbanisation, b) natural growth of the city and c) industrialisation, metropolitan Cairo is expanding in all directions. In addition, the process of migration towards the metropolis and on the large-scale establishment of the cemetery and tomb cities have badly affected the planning and development process in the metropolitan area. in view of Fading (1988)

"The 1986 census surveyed the area for the first time, but officials have not yet produced a number."

Programmes for Reducing Problems in Cairo.

3.099 In 1953, to meet the demand for housing the Government organised public housing projects. Local authorities sponsored the construction of 'popular housing' through the Development Company and registered about fifteen societies with the Ministry of Social Affairs. Both Development Company and Societies undertook construction of various housing projects. At the same time, private enterprise directed its attention exclusively to condominiums and other types of housing which were suitable for especially the rich or high-income group, leaving the middle-and low-income groups to arrange shelter for themselves.

3.100 In 1957, the Government prohibited the initiation of further self-financed building projects by the development company. Wheelock (1960) reviews the prohibition of projects and explains " Because of inaccuracy of preliminary cost estimation, the projects failed and therefore the government prohibited self-financed building projects by the company." After the failure of the popular housing scheme, the Government tried hard to cope with the problem of housing, building thousands of flats for industrial workers and lower-grade government clerks, but leaving the problems of the urban poor untouched.

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3.101 In their attempts for solving the housing and relevant problems of industrial workers, the local authorities developed the Workers City, Helwan, just west of Cairo and close to heavy industries in early 1960s. Initially, five-storey walk-up flats were built, shops, schools and mosque were provided, and the estate was connected by an electric tramway to the central part of Cairo. The site covers an area of approximately 41 hectares and contains 6800 flats. Half of the built flats are two-roomed while the remainder are three-roomed. The blocks are built using methods and materials traditional for recent Egyptian government and private housing. The external spaces are all public; either access routes or public open spaces. Like other governments, it might be the Egyptian government's intention that a household shall move to a larger dwelling as its income and number of members increase. On one hand, constant housing shortages and severely controlled rents have made movement difficult. On the other hand, informal payments (key money) to obtain tenancies are beyond most low-income earners so they have to stay in their originally allocated housing units despite changes in financial and domestic circumstances. Thus the population of Worker's City is living in these flats since 1966. Due to the increase in the number of family members and improvements to their financial resources according to Tipple et al. (1985) "most households had made alterations to the flats, usually to increase the

area usable for general activities at the expense of specialised areas."

3.102 At the end of second war with Israel in 1973, the government of Egypt started repairing and developing the cities of the Suez Canal zone, and implemented programmes for development of New Communities to reduce the population pressures in the urban areas of Cairo. The main purpose of this programme was to save agricultural land by urbanizing the desert edge of the former Delta, which is termed the Capital Crescent Region (CCR), extending from Alexandria to Suez Canal zone with Cairo as its functional centre.

3.103 For this purpose a national strategy for developing satellite towns on previously unutilized areas of the country was developed, and energetically implemented at large scale. Some of the satellite towns such as El Obour, Fifteenth of May, New Community Project near the Workers' City and Sixth of October were intended to provide integrated urban development close to Cairo and under its direct influence.

3.104 With regard to infrastructural improvement and development projects, Egypt as a whole but particularly Cairo has benefited for more than 15 years from lavish aid received from the western countries, including the Greater Cairo Wastewater Project which was initiated jointly by USAID and UKODA. The World Bank also had paid for Cairo's first parking garages and for introducing new traffic

lights. During the last few years, a French-designed metro, including five underground stations, has linked the southern industrial suburb of Helwan to down-town Cairo. It is being extended to the north east of the metropolitan area to reduce burden of vehicles on roads and save time from and to workplace.

Summary and Conclusion.

3.105 From the experience of slum formation and policies adopted by the government of Egypt and implemented by the local authorities in large cities of the country, and Cairo in particular the author has learned that the population of all Egypt is growing very fast; and that the population of large cities is growing faster when compared to the total national population. Presently Cairo has more than 10 M population and by 2000, the city will have to accommodate between 16 and 20 M people. Cairo being capital, primate city and intellectual and religious centre acts as a magnet to attract people from countryside. Presently Cairo's population is growing at 4% per annum as compared to a national average 2% per annum.

3.106 The rapid rate of urbanisation has affected both the quantity and quality of housing and available services, and has triggered an ever faster growth in the demand for basic shelter, transportation and communication systems and social

services in Egypt as a whole and in the Cairo metropolis in particular. The City is growing and spreading faster with the development of more and more low-income settlements towards peripheries. Due to the serious shortage of housing, a large number of middle, low and lower-income people are living in miserable conditions. The poor people on their arrival in large cities, especially in Cairo, occupy an open space between existing public housing or in the cemeteries (City of Dead), acquire tombs (holy shrines and sometimes old mosques) or they stay with their relatives. They build cheap houses on occupied land, erect shacks or tomb houses or arrange temporary accommodation on the top of buildings by tents and extensions, sharing available service facilities. The experience in Cairo has shown that the poor themselves have been significant agents in reshaping their own lives- they build cheap houses, and improve living conditions by extensions to the dwellings, either as individuals or in groups. The increase in population has been associated with a serious shortage of houses, and put high pressures on public utilities, resulting in a widening of the gap between the demand for and supply of adequate shelter and utilities.

3.107 The existing infrastructure and other problems of large cities, particularly Cairo are similar to those facing most Third World primate cities. Presently some 66% of the city's total population has access to the existing sewerage

system. Due to poor maintenance the system is blocked, overflowing and inoperable. The people use pits an unhygienic source of sewage disposal. Most of these pits are uncovered, flowing in the streets resulting in insanitary conditions. The government of Egypt has recognised, for many years, the serious nature of the housing and relevant problems in the country. In response to the nature of the problems, the government of Egypt has adopted and applied various policies and schemes in the country as a whole, and in primate city in particular.

3.108 In view of national policy for construction of low-cost housing the Cairo metropolitan authorities initiated public housing projects through Development Companies. Due to failure of popular housing scheme the local authorities built 5-storey blocks for industrial workers and low-waged public employees leaving the problems of poor living in cemetery and tomb cities. The experience of housing provided by nationalised construction companies has confirmed that these houses did not benefit the middle-income and low-income groups, the poor people could not afford the high cost of houses. The experience of prefabrication industry for solving the problem of housing has confirmed this policy failed because of heavy equipment required for production, transportation and erection of houses. The other reasons for failure of this policy are: this programme required highest usage of major construction materials, well trained and highly skilled staff. Due to the reasons mentioned above the

cost of houses was unaffordable by the low-income people, and most of the low-skilled workers lost their jobs.

3.109 The government's approach to mass housing has consistently been the production of housing in large quantities within a short period. This approach led to the construction of small identical housing units in 4-and-5-storey walk-up blocks of flats. Typical forms of government accommodation for low-income population groups are two-and-three roomed flats designed according to predetermined standards for the size of room and plumbing fixtures etc.

3.110 The other attempts to provide housing rely on development of satellite towns independent from the already existing urban centres, New Communities settlements, self-help approaches in site-and-services and upgrading schemes. Numerous studies have been made, at various times, by Egyptians and foreign experts, to suggest possible solutions to these harmful problems. Foreign aid agencies, consultants and technical assistants have been involved in the process. In view of the foreign experts' suggestions many decisions have been taken to implement policies to solve problems at national and metropolitan level. The foreign experts have prepared the Master Plans for large cities- Ismailia, Port Said, Suez Canal and Cairo metropolis. The Mster Pland suggest development of New Towns, New Communities and Satellite Towns within, around oraway from the cities, especially Cairo. For implementation

of this strategy, the Egypt has received financial and technical assistance from UKODA and USAID Programme. Most of the projects are jointly initiated by the World Bank.

3.111 A critical review of policies for large-scale public housing, multi-storey flats for industrial workers near Helwan (Cairo) shows a triangular relationship between size of flat (space), size of family (households) and purchasing power (affordability). The size of the flat remains smaller as compared to the size of households and the cost lies in a range beyond the reach of the low-income households at the time of allocation. The experience of new towns, new communities, site and service and upgrading existing low-income housing areas in Egypt, and Cairo in particular shows that these projects have achieved partial success; while others are still under progress. The big cities of Egypt like Cairo are growing fast day by day, and that growth is accelerating. Due to the rapid growth of the cities, conditions of the low-income families, especially those settled in the slums, are becoming worse. To satisfy the needs of the poor families, the government of Egypt will have to reconsider its present policies and programmes for further development of new settlements and the improvement of socio-economic conditions of slum dwellers in the large cities of the country and in Cairo in particular.

PAKISTAN.

3.112 Pakistan was created by the partition of British India and emerged on the map of the world on August 14, 1947 as a nation with two detached territories, East Pakistan and West Pakistan. Separated by Indian territory, East and West Pakistan were 1.77 K km apart. The eastern wing of the country, now Bangladesh, seceded in December 1971. Pakistan mainly comprises four provinces (states): North West Frontier (NWF), Punjab, Sindh, and Baluchistan. Although Baluchistan is the largest province with an area of 347 sq km, it contains a low density per sq km. This is due to a high proportion of arid and mountainous land, a dearth of an industrial network, and non-availability of irrigation water in that province. (see Figure 3.2)

3.113 Pakistan with an area of 796 K sq km at present, stretches over 1600 km north to south and is about 855 km from east to west. Out of the total area of 796 K sq km, about 476 K sq km in the north and north-west form a highly differentiated mountainous terrain. The remaining 320 K sq km present a flat or gently sloping surface. The whole country, except for most of Baluchistan, falls into the hydrological unit drained by the Indus system of rivers. The River Indus, having its source in Lake Mansorowar in Tibet, flows through almost the whole of Pakistan.

LARGE CITIES



SOURCE: SHELTER FOR HOMELESS: PAKISTAN CANVAS. ENVIRONMENT AND URBAN AFFAIRS DIVISION, GOVERNMENT OF PAKISTAN

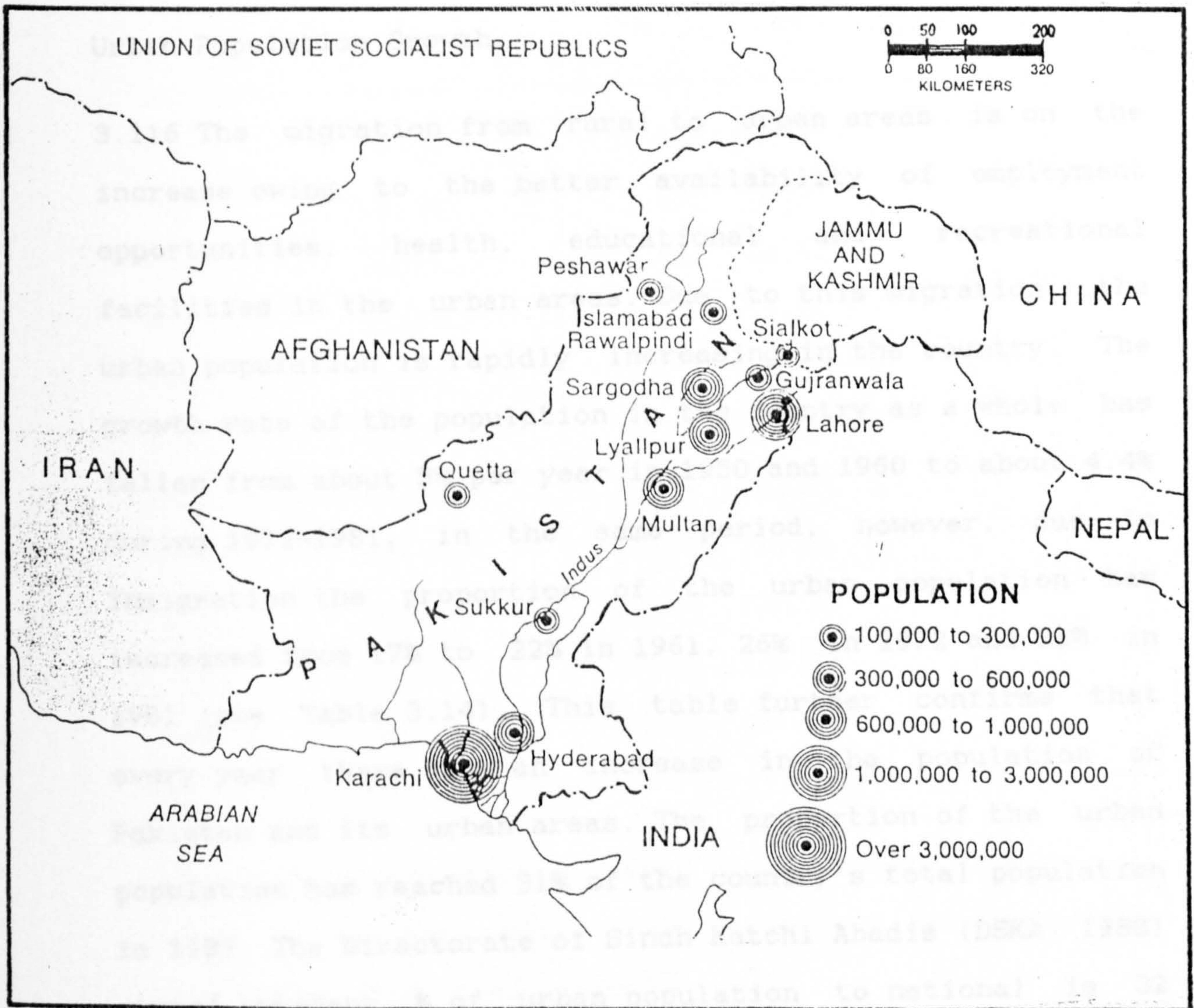
3.114 Pakistan is a land of diversified relief. In the north it is bounded by the Himalayan Ranges, the Karakoram Ranges and the Hindukush beyond it. The Himalayas have an average elevation of 6100 metres with some of the highest peaks in the world. K-2 (Mount Godwin Austin), 8616 metres is the highest peak of the Karakoram Range, while Tirich Mir, 7736 metres is the highest peak of the Hindukush. The People's Republic of China and the Soviet Union, two of the world's superpowers, are Pakistan's immediate neighbours on the North East and North West respectively. In the East, Pakistan has a common border with India, while to the West and South West Pakistan has common borders with Afghanistan and Iran respectively. The Arabian Sea lies to the South of the country. (See Figure 3.3)

Population Growth.

3.115 Pakistan is a developing country and, like other developing countries, it is presently going through a period of rapid population growth. The population of Pakistan at the turn of the century i.e 1901 was 16.58 M. Prior to 1947, the growth rate of both population and urban area were relatively low. With the large net movement of population from India after Independence the population has rapidly increased. Since Independence the population of the country has increased from 34 M in 1951 to over 100 M in 1987. According to the Planning Commission (1988) "the rate of

COUNTRIES

growth for the National population at present is 2.5 percent
annum.



SOURCE : KARACHI DEVELOPMENT PLAN 1974-1985. MASTER PLAN DEPARTMENT, K.D.A.

growth for the National population at present is 3.1% per annum."

Urban Population Growth.

3.116 The migration from rural to urban areas is on the increase owing to the better availability of employment opportunities, health, educational and recreational facilities in the urban areas. Due to this migration, the urban population is rapidly increasing in the country. The growth rate of the population in the country as a whole has fallen from about 5% per year in 1950 and 1960 to about 4.4% during 1972-1981, in the same period, however, due to immigration the proportion of the urban population has increased from 17% to 22% in 1961, 26% in 1972 and 28% in 1981 (see Table 3.14). This table further confirms that every year there is an increase in the population of Pakistan and its urban areas. The proportion of the urban population has reached 31% of the country's total population in 1987. The Directorate of Sindh Katchi Abadis (DSKA 1988) stated "present % of urban population to national is 32 which is increasing at an annual rate of about 4.5 percent."

Table 3.14 Growth of National and Urban Population 1901-87.

Year	Total population:	Urban population:		Increase per year (M)
	(M)	(M)	(%)	
1901	16.58	1.62	(9.8)	0.007
1911	19.38	1.69	(8.7)	0.037
1921	21.11	2.06	(9.8)	0.071
1931	23.54	2.77	(11.8)	0.125
1941	28.29	4.02	(14.2)	0.200
1951	33.78	6.02	(17.8)	0.363
1961	42.88	9.65	(22.5)	0.671
1972	65.30	17.04	(26.3)	0.755
1981	84.20	23.84	(28.3)	2.030
1983	90.40	27.90	(30.8)	0.275
1987	102.70	29.00	(31.0)	

Source: Pakistan Statistical Year Books (1984), (1988).

Schoorl. J. W (1983): Between Basti Dwellers and Bureacrats.

National Five Year Plan (1988-93).

3.117 Because of the rapid growth of urbanisation the major cities of Pakistan face physical, social, economic, cultural and environmental problems. The major cities of the country are growing faster day by day. Population (1981) and annual average growth rate of major cities of Pakistan are shown in the following Table 3.15. (Refer to Figure 3.4 for large cities of the country)

Table 3.15 Population (1981) of Major Cities of Pakistan and its Annual Average Growth (1972-1981).

NAME OF CITY	P o p u l a t i o n		Annual Average Growth 1972-1981 (% per annum compound)
	1972 (K)	1981 (K)	
Karachi	3515	5103	4.5
Lahore	2170	2922	3.4
Faisalabad	823	1090	3.2
Rawalpindi	722	928	3.1
Hyderabad	629	795	2.8
Multan	539	730	3.8
Gujranwala	324	597	6.1
Peshawar	273	555	8.7
Sialkot	204	296	4.5
Quetta	158	285	7.2
Islamabad	77	201	8.5

Sources: Pakistan Year Book (1981), (1983).

Housing And Relevant Problems in Pakistan.

3.118 The problems of ever-increasing shelterless people and the lack of adequate basic services and facilities in urban areas of developing countries have assumed gigantic proportions. The urban issues in Pakistan emerged right from its emergence onto the map of the world (1947). Because of the movement of a huge number of refugees from India to different parts of Pakistan, and later on from Bangladesh (1971), especially to Karachi, the country has hardly managed to cope with the problems relating to housing. According to estimates Karachi will grow to a population of 13 M by the end of the century and Lahore to around 8 M population by then. (Khowaja 1976)

3.119 Due to the rapid natural growth of the population and inadequate attempts to augment housing stock made by the Government, the gap between housing demand and supply will go on increasing unless a conscious effort is made towards the solution of the problem at a national level. According to Khowaja (1976), "Lahore by 1972, has already developed a shortfall of 200 K dwelling units and it has been estimated that by 1984 almost 81.6% of present housing stock will become obsolete and will require replacement."

3.120 Another manifestation of the worsening of the situation in the large cities is the increase in the number of katchi abadi or slum dwellers in the urban areas. One of

the major reasons for the emergence of katchi abadis in large cities is the continuous migration of people from rural to urban areas. Khowaja (1976), " it is estimated that in 1981, 25% of the urban population of the country in the large cities will be living in (such katchi abadis) sub-standard conditions." According to the Planning Commission (1983), "the number of katchi abadi dwellers during the eight-year period (1972 to 1980) has been increased by about 1.0 M." Khowaja (1976) says " there are 80 K juggis in Lahore, illegally accommodating a large number of low-income people in grossly sub-human conditions."

3.121 The situation in the rapidly growing metropolitan and other big cities of the country does not differ much from the situation described above. According to S. Naeem (1981) "about 35% houses have latrine and 24% houses have bathroom facilities. The houses having piped water are 16.6% and the houses with electric connections are only 17.9%. About 33% of the total population of the country are living in katchi abadis and slums."

3.122 At the same time the rate of occupancy during 1972-1980 has increased from 6 to 7 persons per household and the average number of persons per room increased from 3 to 3.5 persons per room. The average household size 1976-1986 for the four Provinces and for Pakistan, by urban and rural areas, is shown in Table 3.16.

Table 3.16 Average Household Size by Province and Urban-Rural Residence. U = Urban Area, R = Rural Area.

Y E A R S	1976		1981		1984		1985		1986	
HOUSEHOLD SIZE	T Y P E O F A R E A									
TERRITORY	U	R	U	R	U	R	U	R	U	R
Punjab	6.3	5.7	6.9	6.3	6.6	6.1	6.7	6.1	6.6	6.2
Sind	6.9	5.9	7.0	7.0	7.0	6.2	7.0	6.5	6.9	6.6
N W F	6.5	6.4	7.2	6.8	6.6	6.4	6.8	6.4	6.8	6.6
Baluchistan	6.7	6.2	7.6	7.3	7.5	5.9	6.9	5.9	7.2	6.0
Pakistan	6.6	6.0	7.1	6.8	6.9	6.1	6.8	6.2	6.8	6.3

Sources: Pakistan Demographic Survey 1986.

3.123 The above table shows that the average household size for urban areas of all Provinces and of Pakistan as a whole is larger than in rural areas. The average household size 6.5 calculated for 1986 is slightly larger than 6.3 for 1976, but is smaller than 6.9 calculated for 1981.

3.124 The following table 3.17 shows that in 1986 the share of single-person house-holds is approximately 3 percent. The households with 5 or fewer persons constitute 41% of the total households, the corresponding figures for rural and urban areas are 43% and 38% respectively. The proportion of households having 10 persons or more is higher in urban

areas than in rural areas. The table further shows that in 1986, the share of single person households in urban and rural areas is 3.4 and 3% respectively: and that 37% of households in urban areas and 32% of households in rural areas contain 8 or more persons.

Table 3.17 Percentage Distribution of Households by Number of Persons and Urban (U) and Rural (R) Areas.

YEARS	1976		1980		1984		1985		1986	
	U	R	U	R	U	R	U	R	U	R
Number of Persons	P E R C E N T A G E D I S T R I B U T I O N									
1	4.2	3.2	4.2	2.8	3.0	2.9	3.0	3.0	3.4	3
2	5.9	8.4	6.1	6.5	5.7	7.9	5.5	7.7	5.5	7
3	7.6	10.2	7.0	8.6	7.6	9.5	7.1	9.5	7.3	9
4	10.8	13.2	9.8	11.2	9.9	12.2	10.3	11.3	10.1	11
5	11.5	14.6	11.1	12.4	11.6	13.7	11.4	13.2	11.8	13
6	12.8	13.6	13.1	13.6	12.5	13.2	13.2	13.5	12.7	13
7	11.9	14.7	11.7	11.2	12.9	12.1	12.7	12.4	12.6	12
8	11.3	9.0	10.9	11.0	11.0	9.5	11.0	9.8	11.6	11
9	7.9	5.9	7.2	6.4	8.1	6.5	8.2	6.6	7.9	7
10 +	16.1	10.2	18.9	16.3	17.7	12.5	17.6	13.0	17.1	14
Total	100	100	100	100	100	100	100	100	100	100

Source: Pakistan Demographic Survey 1986.

Policies and Programmes for Overcoming Problems.

3.125 In Pakistan the first (1955-60) and second (1960-65) National Five Year Plans were prepared with the aim of rehabilitation of displaced persons during the movement at the time of Independence (1947). The other aim of the plans was to create and develop the most essential institutional and organisational framework for helping the provincial governments and local authorities in setting up the network of planning and housing sectors. Under these plans, some housing schemes and various urgent water and sewerage systems were developed. The number of residential plots created in urban areas up to the second plan's period (1965) was only 150 K. The housing and building research, however, remained pitiable and no progress was made in this direction

3.126 With the half-completed settlement programme of displaced families and the development of a crude institutional and organisational framework, the Third National Plan 1965-1970 was intended to initiate the modest comprehensive programme for physical planning and housing on both a curative and a preventive basis. This plan was abandoned, however, because of the war between the two countries. (This was the first war between Pakistan and India after the partition of British India). The number of residential plots created for the urban poor up to the Third Plan period (1970) was 230 K. Of these 150 K plots were developed up to the Second Plan's period. The target for the Third Plan was

fixed at 130 K plots, whereas only 80 K residential plots were created and developed. Up to 1970 S. Naeem (1976) says "Pakistan government has spent around 1.3 billion rupees from public funds on housing but the housing problem of low-income families remained unsolved."

3.127 After gaining experience from the failure in the aims and objectives of the last three national plans, the Government of Pakistan considered housing to be a basic need of the shelterless poor families of the country, and prepared the Fourth National Five Year Plan (1970-75) with great care. Under this plan the following housing schemes and programmes were initiated:

1. Rural housing, 2. Low-cost housing, 3. Public-servant housing, and 4. Industrial-labour housing. Unfortunately this plan was also abandoned due to the second war between the two developing countries and due to the tragedy of the separation of the east wing of the country (Bangladesh).

3.128 The Government of Pakistan used the plan's proposals as a guideline for an adhoc plan 1971 - 1978. During the 8 year period 165 K urban residential plots were developed in the public sector and the provision of plots went up from 8 K in 1970 - 71 to an estimated 65 K in 1977 - 1978. In large cities a number of low-cost housing schemes, industrial labour housing, and 'core house' projects were taken up. In Karachi for example, Low-cost Flats, Houses for Industrial Labour, and Metroville Project were developed (see Chapter

4). This national development policy of the Government made the private sector reluctant to invest in industries other than housing. The estimated backlog of housing units in the country at the end of 1978 was 1.2 M.

3.129 Recognising the facts of severe resource constraints and the limited potential of the local building industry, in the Fifth National Five Year Plan 1978 - 1983 the emphasis was put on the upgrading of the living environment and the provision of services such as water supply, sewerage and sanitation, mobilisation of private-sector resources for investment in housing, and the development of smaller plots for low-income groups on a large scale. Greater emphasis was given to the regularisation and improvement of the katchi abadis. The requirement for urban residential plots was fixed at 425 K on the assumption that multi-storey flats would be constructed on each developed plot. The additional estimated demand for housing units in urban areas over the plan period was 581 K units. According to the Planning Commission (1983), the sector targets for the Fifth Five Year Plan were as follows:

i) The construction of 350 K houses by the private sector in urban areas. Annual output of houses to be increased progressively from 45 K in 1978 to 90 K in 1982 - 83.

ii) The development of a total of 425 K urban residential plots of various sizes (61.5 sq m to 461.2 sq m): 75% of this total number of plots for low-income groups, 20% of

plots for middle-income groups and the remaining 5% of plots were for higher-income groups).

iii) For the improvement of the environment the improved basic services will be provided for a population of 1.33 M in slums or katchi abadis.

3.130 For proper implementation of an urban development strategy the Katchi Abadis Authority and the Directorates of Katchi Abadis were set up in all Provinces and in the large cities of the country. The plan targets indicated above, were however not achieved and there was a substantial shortfall under each of these three headings. According to S. Naeem (1981) " during the years 1979 - 1980, 51 K residential plots and during 1980-1981, out of the target of 56.5 K only 47.5 K urban residential plots were developed." At the completion of the Fifth Five Year Plan period (1978-1983) the total number of developed plots was about 285 K with a shortfall of 140 K plots, while the number of houses constructed in the private sector was only 225 K units. Similarly the population covered under the slum or katchi abadi improvement programme was 0.5 M against the target of 1.33 M population.

3.131 In view of the failure of the targets fixed in each National Five Year Plan, the government realised that its intervention is necessary at a national level, therefore the Government should assume the major share of responsibility to resolve the problem of housing for low-income groups.

Keeping the above approach in view, the following strategy was evolved for solving the problem of housing during the Sixth National Five Year Plan 1983 - 1988 :-

i) The Government would assume the major responsibility for low-income housing.

ii) The poor would be allowed to construct their houses according to their own design without interference from the building authorities concerned.

iii) With a view to reducing costs of materials and ensuring availability to housebuilders, the Government would provide construction materials at low rates.

iv) Commercial banks, saving and loan associations were directed to advance loans to builders at commercial rates and mobilise small savings to help to solve the problem.

v) All nucleus housing units (up to 200 sq ft or 18.5 sq m covered area) were to be financed through interest-free loans of Rs. 2000 (two thousand rupees) by the House Building Finance Corporation (HBFC).

vi) It was assumed that the Government would develop 550 K small-sized plots for low-income families. For this purpose state land would be allotted at reasonable rates. In addition to the above, 120 K small-sized plots were to be developed by the private sector, for which, undeveloped land was to be provided by the Government.

vii) An Institute of Regional and Urban Planning was to be set up to prepare development plans for all major cities. According to the Planning Commission (1988) " during the Sixth Plan's period (1983 - 1988), only 400 K housing units were constructed in urban areas against the target of 670 K units. Similarly out of 550 K, only 430 K residential plots have been developed." (See Table 3.18)

3.132 The gap between demand and actual supply of adequate housing and other basic services at national level in Pakistan continues to grow with each passing day, particularly for the poor who constitute about 70% of the total population. According to the figures published by the Planning Commission (1988) the urban population of Pakistan will have increased to 38 M in 1993 from 29 M in 1987. It is estimated that 3.5 M of the increased urban population will be migrants. The metropolitan cities are expected to absorb 2.3 M migrants, whereas the remaining 1.2 M migrants will be absorbed by the other secondary cities and small towns. The problem is much more pronounced in the cities of Karachi, Hyderabad, Lahore and Rawalpindi which are likely to attract the migrants from other countries as well as from the countryside.

Table 3.18 Statistics About Residential Plots and Housing Units Against the Targets of National Plans in Pakistan.

PLAN Period	AIMS of PLAN Policies	P L O T S (K)			H O U S E S (K)			
		A	B	C	D	E	F	G
1947-50	ACCOMMODATING INDIAN REFUGEES	n.a	n.a	n.a	n.a	n.a	n.a	540 K
1950-55	HOUSING ESPEC- IALLY REFUGEES	n.a	n.a	n.a	n.a	n.a	n.a	n.a
First								
1955-60	RELOCATION OF SLUM DWELLERS	n.a	n.a	n.a	n.a	n.a	n.a	600 K
Second								
1960-65	HOUSES: STAFF AND REFUGEES	n.a	150	n.a	300	150	150	950 K
Third								
1965-70	UPGRADE SLUMS	130	80	50	293	n.a	n.a	n.a
Fourth								
1970-78	UPGRADE SLUMS, HOUSE:HOMELESS	n.a	165	n.a	n.a	n.a	n.a	1.2 M
Fifth								
1978-83	UPGRADE ENVNT, PLOTS+ HOUSES: STAFF AND POOR	425	285	140	581	225	356	1.4 M
Sixth								
1983-88	HOUSES: STAFF, LEGALISE SLUMS	670	430	240	670	400	270	1.5 M
Seventh								
1988-93	HOUSES, SERVICES TO SLUM DWELL.	n.a	n.a	n.a	650	n.a	n.a	n.a

A = Targets fixed in national plans.

B = Developed plots against targets. C = Shortfall.

D = Targets fixed in national plans.

E = Constructed houses against targets. F = Shortfall.

G = National shortfall.

n.a = Not available.

Sources: National Five Year Plans 2nd, 3rd, 6th and 7th.

Pakistan Year Book 1969.

3.133 On the basis of the worst situation existing in the metropolitan cities of the country and expecting a high growth of urbanisation, the Government of Pakistan has prepared a Seventh National Five Year Plan (1988-1993). The Seventh Plan aims to accelerate the provision of housing and other service facilities. The major focus of the plan will be on solving the problem of housing, improvement of water supply, sanitation and environmental conditions under a crash programme (katchi abadi development programme) particularly in the two large cities of Karachi and Lahore. Based on past trends the Seventh Plan estimates a need of 650 K housing units to meet the demand induced by the natural increase (5.5 M) in urban population. The plan assumes that the demand of 3.5 M migrants will be met either by the housing available for the natural increase in population or through temporary construction arranged by the migrants themselves. This indicates inefficiency and inability of the government to solve housing problem. The following strategy is proposed in the Seventh National Plan for the achievement of its objectives.

Improvement of Housing and Future Development in Katchi

Abadis in Pakistan: A Major Component of the National Plan.

3.134 Tenure rights shall be given to the residents of those settlements (katchi abadis) which consist of 40 or more dwellings, together with the provision of essential services. In view of the limited capability and commitment

of Government organisations as well as dwellers, the strategy involves the significant role of Civic Bodies, Municipal Corporations and Project Area Committees. The major development works, like bulk water supply, sewage disposal, schools, dispensaries, roads etc, will be the responsibility of Government Agencies while the minor works like paving of streets, construction of drains and sanitation, running of informal schools and small dispensaries will be the responsibility of Project Area Committees. Katchi abadis will be further grouped according to Project Area Committees. It is presumed that Katchi Abadi Development Councils will be established at National as well as at Provincial levels for formulation and implementation of policy. This shows absence of effective policies and of adequate management. Further strategy suggests that extension wings at Project Area Level and research cells at Municipal Corporation Level will be set up to carry out research and recommend low-cost solutions. The efforts of the public participation will be supplemented by Community-based Non-Government Organisations (N G Os). According to the Planning Commission (1988), " a total investment of 16.8 billion rupees will be needed."

3.135 During the Seventh Plan period (1988-93), of a total 2322 Katchi Abadis occupying a total area of 174.5 sq km, 2040 Katchi Abadis existing on state land occupying an area of 105.5 sq km will be developed by an investment of about 10.8 billion rupees (see the following table 3.19).

Table 3.19 Number of Katchi Abadis in All Provinces and in Pakistan by Area and Population (1987).

Territory Unit	Number of Abadis	Occupied Area (sq km)		Total Area (sq km)	Population (M)
		state	private		
Punjab	902	35.9	2.0	37.9	1.6
Sindh	1300	98.3	6.9	105.2	3.8
N W F	55	11.4	nil	11.4	0.3
Baluchistan	65	6.1	13.9	20.0	0.3
Pakistan	2322	151.7	22.8	174.5	6.0

Source: Seventh National Five Year Plan (1988).

3.136 Figures shown in the above table reveal that a high proportion of the urban population is living in informal settlements having inadequate essential services or none at all. The table also shows that 1300 Katchi Abadis (more than 50% of total) are located in urban areas of Sindh Province. A high proportion (60%) of the total population living in Katchi Abadis are settled in the urban areas of Sindh Province. (Karachi is the capital of Sindh Province.)

Conclusion.

3.137 A review of approaches made by the Government of Pakistan to overcome the problems of housing and basic services in the large cities and in the urban poor areas in particular, at National level, from the birth of the country to the present time, indicates that the housing backlog is

increasing and the living and working conditions of poor people are deteriorating day by day.

3.138 The comparison of targets fixed against the achievements of the plans (from the first five year plan 1955 - 1960 to the seventh five year plan 1988 - 1993) shows that in the first years following Independence, the Government was making the necessary arrangements to provide simple shelter to displaced families. The Government aimed at the establishment of Planning Departments and also other Organisations for implementing policies.

3.139 The Third Five Year Plan was abandoned because of the first war with India, hence no development programme was executed. The Fourth Plan was also abandoned because of the second war with India (neighbouring country) and loss of the east wing (half-country). However, the objectives of the plan were used as a guide for an ad hoc plan. Under this plan, the Governments' of Pakistan and Netherlands entered into an agreement in 1970 by which a joint research project (J R P) was to be undertaken over a period of five years. In the course of the project, a large amount of research was initiated for slum improvement and urban development in Karachi, Lahore, Peshawar and Quetta. The Joint Research Project was withdrawn in 1975.

3.140 In the three later National Five Year Plans the Government of Pakistan has put an emphasis on strategies to solve the urban housing problem and improvement of living

environments by provision of water supply, drainage, and roads, particularly in katchi abadis. However, the Plans seem very ambitious and in practice they are too difficult to achieve their objectives, particularly the Seventh Plan 1988 - 1993.

3.141 After reviewing the crash programme (Katchi Abadi Development Programme) of the Seventh Plan and proposed strategy for tenure, one can criticise that the number (40) of dwellings required for issuing tenure rights is very low. Because this number of dwellings could be built overnight. In this way, speculation is encouraged by the authorities rather than discouraged. The other point is that development work at a low level done in an informal way by the Project Area Committee also encourages low-income settlements and delays the actual development projects. After the opening of informal schools, and small dispensaries, and the paving of streets, the organisations lose interest in the project and allocated money is used by the officers concerned. The projects appear as being completed on paper but nothing has been done in practice. The third point of strategy involved in the programme is the grouping of Katchi Abadis, establishment of Development Councils at both National and Local level for the formulation and implementation of suitable policies, and setting up of research cells in order to carry out research and recommend low-cost solutions. This part of the strategy involves long-term planning. From this, it seems that by the time the above organisations will be

set up, the plan period (five years) will have elapsed and no development project will have been carried out during the plan period. Hence, the Seventh Plan will fail in practice like all the previous plans.

3.142 There are only three types of institution which have been advancing loans to low-income groups for construction of houses, namely the House Building Finance Corporation (H B F C), Commercial Banks and various Insurance Companies. The loans given to the poor are very limited- these are insufficient even for the improvement of part of a house. A good majority of people on low income cannot avail themselves of the loan facilities, especially those of the House Building Finance Corporation (HBFC) and of Commercial Banks due to their preconditions for initial investment and due to the long procedure of approval by these lending institutions

3.143 The real ability of poor people to fulfil conditions and pay for housing and related essential services is very difficult to estimate, because monthly expenditures of the poor exceed their monthly income from all sources, and therefore they are forced into short-term borrowing. They borrow money from relatives or small societies and repay by instalment or in a lump sum, when they have some savings or receive some irregular income. Hence the existing strategies and policies for solving the problems of the urban poor need reconsideration, with the formulation of effective policy options. (See proposed Policy options in Chapter 9)

Chapter Four. Case Study: Karachi Metropolitan Area.

Introduction.

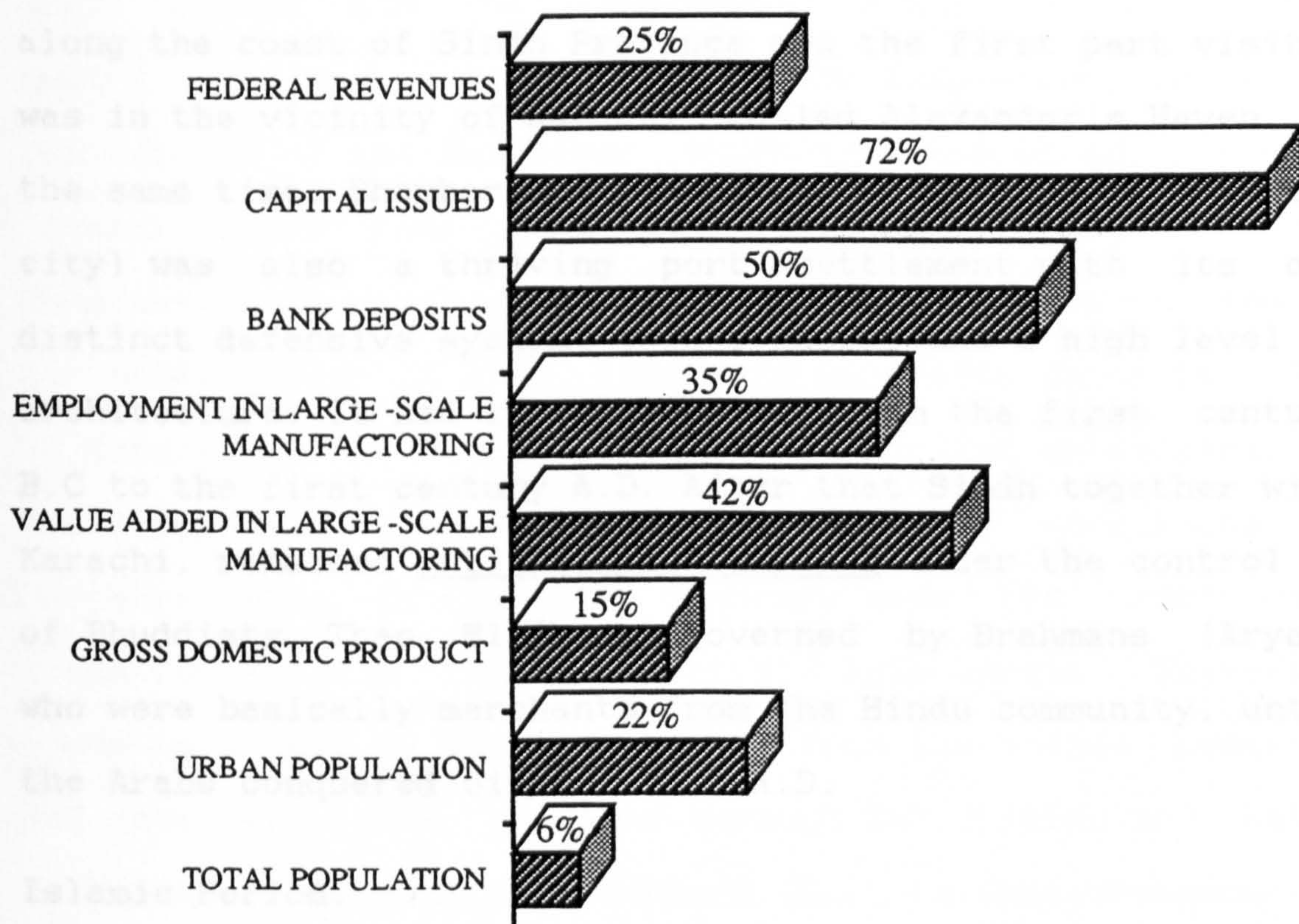
4.001 Karachi located on the southern coast of Pakistan was the Capital of Pakistan for many years, (1947-1964), before the creation of Islamabad as the new Capital of the country. At present Karachi is the largest city of Pakistan and the capital of Sindh Province. It is the main industrial and commercial city of Pakistan. It has the nation's only major port and it has also the only international airport in Pakistan. Karachi's dominance is evident from the following figures. (See Figure 4.1)

4.002 The Metropolitan area covers 3530 sq km, and 30% of the Province's population lives in the Metropolitan area. The Metropolitan area supports 6% of Pakistan's total population and 22 % of its urban population. It contributes approximately 15% of the Nation's gross domestic product. It generates about 42% of added value and 35% of employment in large scale manufacturing. It accounts for approximately 50% of bank deposits and 72% of capital issued. According to one estimate it generates about 25% of all Federal revenue.

Sources: KDA, A Silver Jubilee Presentation (1982).

Karachi Metropolitan Corporation "Urban Development in Karachi (1987)".

Figure 4.1 ROLE OF KARACHI METROPOLITAN AREA WITHIN PAKISTAN



SOURCE: K.M.C., URBAN DEVELOPMENT IN KARACHI (1987)

History and Growth of Metropolitan Area.

Pre Islamic Period.

4.003 The history of Karachi dates back to the 4th century B.C, when it was called 'Krokola'. In some references it is called 'Morontabara'. The history of Karachi reveals that during the 4th century, the Generals of Alexander sailed along the coast of Sindh Province and the first part visited was in the vicinity of Karachi, called Alexander's Haven. At the same time, Bhambore (located at 60 km east of Karachi city) was also a thriving port settlement with its own distinct defensive system, town planning and a high level of architecture. It had its boom period from the first century B.C to the first century A.D. After that Sindh together with Karachi, remained until 7th century A.D under the control of Bhuddists. Then Sindh was governed by Brahmans (Aryan) who were basically merchants from the Hindu community, until the Arabs conquered Sindh in 711 A.D.

Islamic Period.

4.004 After being conquered in 711 A.D (Sindh) the Indus valley was made the port of the Islamic World by the Muslim troops under the command of young General Muhammad Bin Qassim. New life was given to the Indus valley by the Muslims who developed a high culture and civilization in this area. The activities of the Muslims continued with full vigour and they built the first mosque in South Asia at

Bhambore in 727 A.D. During their period, the Muslims established the city of Debal in the south of Makli Hills (Thatta District, Karachi Region) about 96 km from Karachi city. The Arab Muslims handed over the Sindh to the local people of the Soomra community and after Soomra, Sindh was governed by the Samma, another local community.

4.005 In 1592 A.D, the area became a part of the Moghul Empire after having been conquered by King Akber. In 1728, the estuary of the Hub river, which then formed part of the 'Kharak Bunder' (sea port), silted up due to heavy rains. Thus the Hindu merchants of that time were forced to search for other ports. In 1729, the Hindu merchants chose the Bay of Karachi, 29 km east of Kharak Bunder and established a small town in its vicinity. The anarchic conditions in Northern India in the 18th century made the traditional trade routes from India to Central Asia unsafe. Therefore goods were sent to Karachi by sea from the Indian peninsula and then were taken overland through Baluchistan and Kabul to Harat, Samarkand and Bukhara. Due to the movement of goods through the bay, Karachi became an important port and its merchants expanded their zone of operations as far as China in the east and Zanzibar in the south.

4.006 The Moghul Emperors lost their grip over the area and in 1737 another local people, Kalhora established themselves over the area. After taking over Sindh, they re-established the Kharak Bunder with some modest improvements in the

middle of the 18th century. But unluckily the Kalhoras could not govern Sindh for long. The Kalhoras were overthrown by another local community known as Talpur who took power in 1782. The Talpur Government provided more facilities to different traders at Karachi seaport. The Soviet Union took advantage of this offer, their expansion towards the Arabian Sea (south of Karachi) threatened British interest in the region. Therefore in 1839, the British occupied Karachi and used it for landing troops and arms for their Afghanistan campaign to restrain the Union of Soviet Socialist Republic.

British Period - 1843 - 1947.

4.007 In 1843, when the British conquered the area, Karachi was a small walled city measuring about 14 sq km with scattered fishing villages and a population of 14000. The British annexed the Kingdom of Sindh to their Empire and Sir Charles Napier made Karachi the administrative centre of Sindh. After 1843, Karachi expanded rapidly.

4.008 Being a new administrative centre of Sindh, new modern buildings were erected and institutions were established in the city. Karachi Municipal Corporation was established in 1852, drinking water was made available to the city from some wells in 1859. In 1861, a railway line was opened, which linked Karachi to the agricultural areas of the Punjab. In 1870 Bunder road was constructed to connect the seaport with the city. The first piped water supply system was undertaken in 1880 - 1883 and horse-drawn trams were

introduced in 1884. Karachi Port Trust (KPT) was established in 1886 to look after a small harbour. In the 1890s when a permanent perennial irrigation system was established in the Province, Karachi became the export route for an enormous amount of agricultural surplus.

4.009 Not only were these developments carried out, but many institutions and churches were also built in the city, e.g. Sindh Madarsa, D.J. College, St. Patrick's, St. Joseph's Grammar School etc. A vegetable market named Empress Market was built in 1889 and was recorded at that time second only to Bombay, which was then the best in Asia.

Geography of Karachi Metropolitan Area.

4.010 Karachi, the capital of Sindh Province and until 1964 the capital of Pakistan, is located at the extreme western side of the Indus river at the fringe of the monsoon belt. It has developed from a small fishing village into an important commercial centre. The city has grown outwards from its natural harbour on the Arabian Sea. Karachi has a topography characterised by undulating plains and flat land except for the hilly western part. Much of the land around Karachi is barren wasteland. There are two relatively small agricultural areas in Karachi: one in the Malir river basin east of the city and the other in the Hub river basin towards the west. Much of the barren wasteland around the city is under public ownership endowing the city with one of the largest public land banks in the world. Karachi has a

moderate climate which occasionally becomes sultry during the hot season occurring between May and June.

Population Growth in Karachi Metropolitan Area.

4.011 The population of Karachi increased from 14 K in 1843 to 57 K in 1872; and the area of Karachi at that time expanded from 14 sq km to 15.5 sq km. The population of Karachi jumped to 105 K by 1891. By 1921 its population had increased to 244 K whereas by 1941 its population had reached 435 K. In a period of about 100 years the city of Karachi grew by about 421 K population that is about 4.2 K people a year. Hence it is clear that there was a continuous increase in the growth of the population of Karachi.

However, it did not cross the limit of 1 M up until 1947, when the British Indian Empire was partitioned and as a result, the new State of Pakistan was created.

4.012 As a consequence of the Partition, Karachi, as the capital of the new nation, received an enormous influx of refugees who constituted 57% of Karachi's 1.14 M population in 1951. The growth rate of Karachi's population was extremely high between 1941 - 1951 (10% per annum). By 1961, the population had almost doubled again to reach 2.14 M and, in 1972, the city's population had grown to 3.5 M. Between 1961 and 1972, the population grew by 5.6% per annum, showing a slight reduction from the rate of 6% in the previous decade. By 1974, the Metropolitan population had reached 4.2 M as a result of earlier migration from India

and the continued immigration. The average annual compound growth rate of population for 1961 - 1974 was estimated at approximately 5.3 percent. According to the census of 1981, the population of Karachi was 5.1 M showing an increase by 4.5% annually between 1972 and 1981. By 1985 the population of Karachi had reached 6.8 M and within 4 years there was an increase of 1.7 M people. The population of Karachi has increased more than five fold since 1947 (see the following table 4.1).

Table 4.1 Population Growth of Karachi 1843-1941-2000.

Year	Population (M)	Increase (M)
1843	0.014	-----
1872	0.057	0.043
1881	0.074	0.017
1891	0.105	0.031
1901	0.136	0.031
1911	0.186	0.050
1921	0.244	0.058
1931	0.300	0.056
1941	0.435	0.135
1951	1.14	0.71
1961	2.14	1.00
1972	3.50	1.36
1974	4.20	0.70
1981	5.10	0.90
1983	6.00	0.90
1985	6.80	0.80
1990 *	8.20	1.40
1995 *	10.10	1.90
2000 *	12.20	2.10

*. Estimated.

Sources: Schoorl J. W. et. al. (1983),

Pakistan Year Book (1983). Pakistan Statistical Year Book (1984) and Sivaramakrishnan (1986).

4.013 Herbert (1982) highlights the situation as follows: "Like that of other major urban areas in developing countries the population loads to which Karachi Metropolitan area has been subjected are awesome. In 1941 the population of Karachi District was less than half a million. Between 1947 and 1951 there was a huge movement to and from India and approximately 0.6 M displaced persons migrated into the area from India bringing the total population to 1.3 M."

4.014 The annual growth rate of the population in Karachi continues to be so high that 11 M - 15 M people are expected to live in Karachi by the turn of century. Green (1986) gives the facts and figures about Karachi's population growth as " By 1951 Karachi's population had reached about 1.3 M which represents an increase of 160 percent over the 1941 census. The migration was moderated by the 'green revolution' of the 1960s. Together with natural growth it kept Karachi's population increasing at a rate of 4.78% per annum between 1971 and 1981." Green calculates " If this trend continues, Metropolitan Karachi could have close to 13 million inhabitants by the year 2000, which is more than twice the 1987 estimated population of 6 M."

4.015 As many as 97 percent of the total population of Karachi are Muslims: the remainder are Christians, Hindu and Others. According to KDA (1982) " The population density in Karachi's urban area is 2800 persons per sq km, while the

overall density of Karachi Division is 1661 persons per sq km."

Problems in Karachi Metropolitan Area.

4.016 The majority of Karachi's population is poor: people with very small and irregular earnings, low purchasing power, and substandard savings. Increase in the population, informal housing and the poor economic conditions of the inhabitants has created a heavy demand for housing, improvement of infrastructure and social services such as, water supply, sanitation, education and health (physio-socio-economic planning). In addition, poor management is also a major constraint to the process of planning and implementation in the city.

4.017 A major part of Karachi's housing is situated on the periphery of the city, in the sprawling, Bastees or informal settlements, referred to as Katchi Abadis. Presently about 0.25 M households, that is 37% of Karachi's population are living in insanitary conditions. The 37% (2.6 M) inhabitants of Karachi live in informal settlements, covering an area of over 60 sq km. Herbert (1982) explains that " Potentials and problems of Pakistan's urbanisation are highlighted in Karachi."

4.018 Besides the urban housing problem, which is the most important from the point of view of shelter, Karachi is facing severe crises in every sector of urban management

working to improve living and working environments of the settlements in the city. The city has witnessed the slum crisis, water and power crisis, drainage and sanitation problems, refuse and human solid waste disposal problems, air and water pollution problems, unemployment and many others, these have not been solved over the past four decades. However, development agencies like Karachi Development Authority, Karachi Metropolitan Corporation, Sindh Katchi Abadis Authority (SKAA), Directorate of Sindh Katchi Abadis, Karachi Water and Sewerage Board, Karachi Electricity Supply Corporation and Karachi Bureau of Traffic Engineering are trying their best to cope with the problems existing in the city (see Ch.5 for institutional framework and functions). Despite the presence of these agencies, the inhabitants of Greater Karachi face many serious problems which need urgent attention for their immediate solution in order to make life possible for the inhabitants, the poor people in particular.

Housing and Relevant Problems in Metropolitan Area.

4.019 Development of decent housing stock and provision of infrastructure have not kept pace with the population growth in the metropolis, especially with the needs of the lower-middle and low income groups.

4.020 At the time of the Independence of Pakistan (1947), the Government undertook the construction of housing units for refugees employed in Government jobs. This development

however, was on so small a scale that it made little impact on the demand for houses in Karachi. In 1941, the Government constructed about 100 K housing units. In 1951, after the arrival of the refugees, the Government had only 242 K more housing units constructed. Until 1981, only 812 K housing units were constructed in the urban area of the Metropolis. (See Table 4.2) In the 1980, total number of housing units in Karachi division according to Arif (1984) was " 858 K of which 812 K units were located in urban areas." According to the housing survey conducted by the Directorate of Sindh Katchi Abadis (1986) the additional requirement for housing units in Karachi since 1947 is estimated at 0.8 M, whereas only 0.35 M units have been constructed resulting in a backlog of 0.45 M units.

Table 4.2 Growth of Housing Units in Karachi 1941-1981.

Year	Number of Housing Units (K)
1941	100
1951	342
1969	490
1973	592
1981	812

Source: Arif (1984) with some approximations.

Infrastructure.

Water Supply.

4.021 In 1941, about 35.2 Ml per day of water were supplied to the inhabitants of Karachi. In 1947 the water supply had

reached 64 Ml/day, almost double the supply of 1941. Arif (1984) "in 1983 the net supply of water was 1336 Ml/day, compared with 541 Ml/day in 1971." At present, the total water supply for Karachi from various sources is 1473 Ml/day. Out of that about 1273 Ml/day are supplied by the Indus River Commission from the Indus River. According to KMC (1987) "at the end of 1985 when the total population of Karachi was 6.8 M, the demand for domestic, industrial/commercial purposes was 1691 Ml/day. Thus a shortfall of 218 Ml/day was registered in the total quantum supply." This deficiency seems likely to continue due to heavy demand from an increasing number of residents and, from industrial and commercial sectors in the city. Only 33% of households have piped-water connections; and slum dwellers and squatters use public stand-pipes or buy water from vendors at inflated prices. The water shortage is likely to become a very serious problem of the Metropolis. (See Table 4.3)

Table 4.3 Growth of Water Supply in Karachi 1941-1984.

Year	Supply (Ml per day.)
1941	35.2
1947	64.0
1951	99.0
1961	216.0
1971	541.0
1981	810.0
1983	1336.0
1984	1400.0 *
1985	1473.0 *

Sources: Arif (1984) with some modification, Karachi Metropolitan Corporation (1987) *.

Sewerage System.

4.022

At present, due to the lack of an adequate system of sewage disposal, existing sanitation conditions are deteriorating and threatening the environmental conditions of more than 7 M people of the Metropolis, which is already at the threshold of an urban crisis. Most of Karachi's sewage finds its way directly into night soil collection services, pit latrines, sewerage manholes and watercourses such as the River Lyari and the Nallahs, worsening the environmental conditions. According to K M C (1987) " less than 25% of the population or only 48% of Karachi's households (proper) is connected to the sewerage system. The two existing treatment plants, which were built 25 years ago, have a capacity of 182 Ml / day against the requirement of 916 Ml / day."

Solid Waste or Refuse Disposal Services.

4.023 Only 33% of the total solid waste generated daily could be collected transported and removed systematically. The large portion of remaining refuse or human wastage accumulates in drains, nallahs, riverbeds and outfalls thereby aggravating the problem of flooding during the monsoon season. With the methods used at present, Arif(1984) " employing 9113 sweepers and supervisory staff", KMC serves about two thirds of the total households and disposes of approximately 5680 tonnes of refuse or human solid waste in the city.

Floods.

4.024 Although storms are infrequent, Karachi occasionally experiences severe flooding in heavy monsoon rains, with the consequent loss of lives of several hundreds of thousands of inhabitants of katchi abadis and damage to property.

Electricity and Gas Supply.

4.025 In 1980, electricity was available to about 70% of the households of the metropolis and daily per capita gas consumption was 0.76 cu m.

Transportation.

4.026 There are severe deficiencies in the metropolitan transport system, with long and costly commuting for many low-income households.

Recreational Places.

4.027 Karachi with a population of 7 M, has only 975 ha for play grounds and only 195 ha are used as parks. Thus there is only 0.256 ha of open spaces per 1000 population existing.

Social and Economic Conditions.

Education.

4.028 Only 59% of the population is literate. Only 70% of eligible children could be placed in primary schools; and only 33% of children in the secondary-school age group could be accommodated.

Health Services.

4.029 In the field of health services, the Metropolitan Area has only 1.5 hospital beds per 1000 population and 11 health centres per million population.

Economic Status.

4.030 Income distribution and institutional practice are both extremely inequitable, strongly favouring the rich.

About 15-20% of the available labour force is either unemployed or underemployed. A majority of households are unable to afford adequate shelter, food, clothing, education and health care.

4.031 In general there is a lack of comprehensive planning on a large scale. Further studies are needed to enable the development of more effective strategies for the redevelopment of Metropolitan Area.

Low-Income Settlements in Karachi Metropolitan Area.

4.032 The inadequate and inappropriate response of government approaches to the housing problem, particularly to the shelter problem of the low-income groups of urban areas, has led to the development of an informal sector in housing. This sector has consolidated itself over the years and has built up its own institutions. There is a hidden network of high Government officials, who act hand-in-glove with institutions to avoid all publicity and detection. These institutions manage to supply land with immediate possession to the poor at a price that they can afford. These same institutions also lobby successfully through 'hidden hands' with Government Agencies, to acquire illegal supplies of water and electricity for the settlements they develop. In addition the 'building component yards' (on settlement area) provide materials on credit to the poor and necessary technical advice on house building.

4.033 The residents make requests personally or make approaches through officials to a doctor to run a small clinic in the settlement. After some time, the residents establish a local welfare organisation, which acts as a negotiator between residents and agencies. When the number of squatters increases, and have links with officials, and they receive some of the services, the pressure is increased not to evict them from the occupied land. Silberstein (1969) argues " the structure of social relations within squatting

areas is functional so that co-operation among the residents enhances their survival." The occupants start to improve the structure of houses, and put pressure through political leaders on the Government to recognise the settlement for improvement programmes.

Process of Establishing Katchi Abadis in Karachi.

Unorganised Invasion.

4.034 The development process of katchi abadis by unorganised invasion took place as early as the late 1940s in Karachi when the refugees moved into Karachi (1947). The refugees spontaneously occupied all open land in the city, particularly in the central parts of the city. The Government did not discourage this process, as at that time it could offer no alternative shelter to the refugees. However, in the 1960s the Martial Law Government announced a bulldozing (i.e slum clearance) scheme, and the inhabitants of slums located in the central parts of the city were asked to shift to the new Townships of Korangi and New Karachi which were proposed to be built on the fringes of the city.

4.035 The number of unorganised invasions increased from 1960 due to the action of bulldozing (slum clearance) taken by the Government, and due to the shortage of land in the central parts of the city. It is true that Karachi is surrounded by barren land, 90% of this land belongs to the

federal or state governments. This helped in the growth of unorganised invasions. Besides the natural growth of the city, unorganised invasion spread to what was then the periphery of the city; and land along railway tracks, river beds and near the Government's developed townships was subsequently occupied. Almost all recent katchi abadis developed in the city are result of this method. Presently a very high proportion i.e. more than 95% of all illegal settlements developed by unorganised invasion in the city are located on public land, and the remaining low proportion i.e less than 5% of illegal settlements are developed either on private or unknown land in the metropolitan area.

4.036 In spite of all attempts made by the Government to take effective control, small settlements also developed near industrial complexes. The industrialists gave protection to these settlements as they were the only source of easily available and cheap labour for their industries. Later, due to the Government's effective intervention, non-availability of land in the centre and high values of land in planned urban areas, unorganised invasion became more and more difficult. According to Van der Linden (1982) " As a result, many of the bastis of this type have been uprooted and no longer exist, or as with some 60 bastis of this type, they are stagnating in their development." The following table represents a substantial increase in the number of katchi abadis produced through unorganised invasion.

Table 4.4 Number of Katchi Abadis Developed by Unorganised Invasion in Karachi 1947-1976.

Period	Katchi Abadis
1947-1956	11
1957-1966	14
1967-1976	26
Total.	51

The above table shows a steady increase in the number of Katchi Abadis developed by unorganised invasion during 1947-1976. There is an increase of 40 in the number of Katchi Abadis developed in 1947-1956.

Organised Invasion.

4.037 Because of the inability of officials to resolve the issue, more immigration takes place and the new migrants take advantage of official indifference. This happens particularly in Karachi. Besides unorganised invasions of land in the metropolitan area, the urban poor develop their settlements in Karachi by another method known as organised invasion. In this form of development, a number of households, mostly families living in rented houses in old bastis of the city, get together, select a piece of land and then move into it, building their houses overnight. According to Van der Linden (1982) "It should be noted, however, that in many of these bastis, part of the security is derived from the fact that- at least in the initial stages- the land on which the bastis are built was not much wanted by other (e.g commercial) interests."

4.038 The occupation of land is followed by litigation with Government Authorities, and the squatters usually manage to get a stay order, pending judgement from a court of law. After this they (organisers) invite others from their old bastis and villages (either relatives or fellow villagers) to join them in the settlement, seeking security in numbers. Thus, they become the initiator and responsible for further migration. They are known as 'chief organisers' of new settlement, because they have achieved a certain degree of success in the city (for further information refer to 'Squatting by Organised Invasion in Karachi' in Third World Planning Review Volume 4, Number 4, November 1982). Van der Linden (1982) says "study of a settlement developed through organised invasion reveals that 85 percent of its residents lived in rented houses and wished to escape from paying rent, 70 percent of them have no fixed jobs. As compared to this, a study of three unorganised invasions shows that 48 percent of the residents lived previously in rented houses and only 5 percent of them have moved to avoid paying rents, in addition 69 percent of them had fixed jobs."

Table 4.5 Number of Katchi Abadis Developed by Unorganised and Organised Invasion, Area Covered and Population Living in Katchi Abadis (1985). na. not available.

Period	Number of Katchi Abadis developed	Area (sq km)	Population (M)
1958	212	n.a	n.a
1978	362	56	2.30
1985	432	60	2.56

Sources: Directorate Of Sindh Katchi Abadis (1988).

Table 4.5 (a) Distribution of Covered Area.

Name of Agency	Area in sq km	Percentage
Federal Government	2.6	4.3
State Government	50.2	83.7
Private Developers	3.2	5.3
To be Determined	4.0	6.7
Total		60.0

Source. Directorate of Sindh Katchi Abadis (1988).

From above table, about 90% of total area covered by 432 katchi abadis in Karachi belongs to federal and Provincial Government; while the remaining area belongs to either private developers or has to be determined yet.

Types of Squatters Generally Found in Karachi.

4.039 The following types of squatters are found in Karachi.

1. Temporary Squatters: basically squatters of this type have erected shacks, juggis, low quality houses, around big industrial, commercial and housing projects. The purpose of the erection of temporary shelter is primarily for the fulfilment of the needs of immediate shelter and employment. The temporary squatters keep in mind the following factors, at the time of erection.
 - a) nearness to workplace.
 - b) convenient and cheap to erect shacks with little formal skills and investment.
 - c) temporary shelter until employment continues.

d) no intention of claiming land, as the land mostly belongs to the private sector.

2. Tenant Squatters: the newly arrived migrants do not have sound financial sources at the place of origin. They come with very little money, which is insufficient for building or owning a shack in the city, so they rent a shared or single accommodation from older migrants. They start as tenant, get informal employment, and hope to occupy a piece of vacant land and build their own shacks.

3. Owner Squatters: the new migrants having enough money on their arrival, purchase a built-house or erect their own on any vacant piece of land which suits them. After staying there for some period, and having a permanent source of income and social relations with other migrants, they erect some other houses and grant to the new comers. such types of squatters are often found in bustees and colonies of Karachi. During the collection of data in Korangi Karachi, it was learnt that there is an owner squatter who had lent some of his houses to his co-villagers and is himself residing in another part of the city. He comes to Korangi only for small business.

4. Speculator Squatters: the most harmful and common means of the formation of squatting in Karachi city is a professional squatter for whom squatting is a sound business venture. He has contracts with local authorities and with enforcement agencies on the terms of good understanding. He

is the chief organiser (locally called Dada.), with his own organised controlled gang of hooligans. He acts in the role of negotiator between local authorities and shelterless people. The word Dada in Pakistan is used locally for an old person or grand father in Urdu, in Punjabi and in Sindhi languages with a slight difference in pronouncation e.g. dada in both Urdu and Punjabi and dhadha in Sindhi.

4.040 In some places, the people belonging to the 'Negroid' community having wavy and hard hair are also called 'dada' in local languages. People of this community are mostly found in the cinema halls of Sindh Province. These people are considered to be strong enough to control and manage people at the time of buying tickets for movies. They work as 'gate keeper' or 'ticket collector' in cinemas. But here for the subject of the study the word 'dada' means a strong man with his own organised controlled gang of hooligans, who occupy the vacant land in the city, settle some people, and get money to run his squatting business. He collects money for the police and other officials from people illegally occupying vacant plots in the city. In some cases the 'dada' functions as a means of evacuating the poor from private land. Hence, then term 'dada' means a strong man (not necessarily physically nor belonging to the Negroid community) having some money, an organised group of people, who contracts with officials and enforcement agencies for controlling, managing, settling and evacuating people by force.

Katchi Abadis (Slums): Process and Strategy In Karachi.

4.041 It is not a simple task to understand or to define a slum, bearing in mind the diversity of slums in the metropolis that may emerge within the Western definition of slum. Nor is it possible to accept the Western concept of slums, considering the divergent characteristics of slums in Karachi from those in the West.

4.042 The western slums are generally attributed to be characterised by negative characteristics e.g. high rate of crime and delinquency, and deteriorating structures. As Mountjoy (1978) defines "physically precarious and have a complexity of social ills such as prostitution, alcoholism, drug addiction and conditions leading to sickness and diseases." In the context of Karachi's squatters and slums, Mount's definition only partially fits. In most areas of Karachi due to insanitary conditions, there is an unhygienic environment, hence people suffer from sickness and diseases. Because of low wages and large families, poverty exists in these areas. Hence people can neither afford to pay prostitutes nor to buy alcohol or drugs.

4.043 The slum in Karachi is not characterised by such negative characteristics. But Karachi slums may be a recently sprouted settlement of relatively new but makeshift or otherwise inadequate dwellings, infrastructure and insufficient basic services such as education, health and transport. From a general examination of selected areas viz.

Lyari and Korangi, and of some other parts of Karachi city, the researcher observed that inadequate dwellings and infrastructure, overcrowding, illiteracy, unhygienic conditions, lack of health services; transport services and recreation facilities, legal status, lease of plots (legalisation of occupied land) and imbalance of economic status are some of the salient features common to Karachi slums. Lacquiane's (1979) definition confirms this about existing unauthorised settlements and slum situations in Karachi. He states "most of the squatting areas in the Third World share a lack of urban services such as drinking water, sanitary services, electricity, garbage disposal, health services and most squatters have received no elementary education." In addition to the above features of slum stated by Lacquiane, the katchi abadis (slums) of Karachi have some more features such as legal status, lease of plots, overcrowding, and socio-economic imbalance.

4.044 The Karachi katchi abadis (slums) according to their age, process of development and location can be classified as:

1. Old katchi abadis or classic slums which generally are located in old parts of the city, near or in the central parts of the city and those old villages which were developed before 1947, and presently have become part of Metropolitan area and,

2. New katchi abadis or younger slums that are situated at the fringe of the city, towards the periphery of urban area and near industries. These have developed under various conditions and political situations in the city during different intervals. There in new katchi abadis the physical deterioration is not an essential characteristic.

Distinction Between Old and New Katchi Abadis or Slums.

Old Katchi Abadis (Classic Slums).

4.045 Generally, the old parts of the city, areas near central parts and goths (villages) presently located within boundaries of the Karachi metropolitan area, and developed before the independence (1947) are called old or classic slums. By definition, classic slums consist of deteriorated buildings that originally had been destined for purposes other than housing the present dwellers. The classic slums of Karachi located in old parts, near or in the central areas were originally inhabited at first by the Sindhi community and later by the Baluch community. Initially these classic slums were the sources of fishing, small-scale agriculture and dairy farming. They have developed with the growth of the city. The residents of the villages that presently have become part of the urbanisation still have their own farms. They supply vegetable and milk to the citizens- selling vegetable and milk are two of the sources of earning.

New Katchi Abadis (Younger Slums).

4.046 Generally, katchi abadis having illegal or semi-legal status called new or younger slums are mostly located on river banks, beside railway tracks, hillside and towards the periphery of the city. As mentioned earlier, unorganised and organised invasions took place firstly, in 1947 due to independence and secondly in 1960 due to implementation of policy for slum clearance in the city. Hence the settlements developed during these periods and afterwards are associated with unorganised and organised invasions (where physical deterioration certainly is no constant characteristic), are called New or Younger slums. The katchi abadis (new slums) of Karachi are those residential areas where people have built houses according to their own ideas. The houses there are of good quality as these settlements have developed in recent years.

The new katchi abadis or slums can be divided into:

- i) those which developed during the period of 1947-1960.
- ii) those developed to accommodate immigrants who migrated from other parts of the country due to industrialisation in Karachi 1960-1970.
- iii) those which developed after separation of Bangladesh from Pakistan (1971), and due to continued immigration.

Katchi Abadis According to Category and Location.

4.047 Katchi abadis according to the category and location in Karachi Metropolis are summarised as follows:

<u>Category of Katchi Abadis</u>	<u>Location / Place</u>
Old Katchi Abadis	<ol style="list-style-type: none">1. Central parts, areas nearer central parts, old areas of Karachi city.2. Old villages scattered throughout present city partially adapted urban culture.3. Old villages out side the city still related to agriculture and in a predominantly rural environment but trying to adopt an urban culture.

These are also called prepartitioned katchi abadis.

New Katchi Abadis	<ol style="list-style-type: none">1. Settlements encompassed by urban spread and so absorbed within the urbanised area.2. Settlements surrounding the satellite townships, developed there due to closest proximity to industries.3. Settlements on the fringe of the urbanised area.4. Settlements on low valued land, difficult topography e.g river bank, railway track and hills.
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New Katchi Abadis are also called post Partition katchi abadis.

Pre-Partitioned Katchi Abadis.

4.048 Pakistan was created by the partition of India in 1947, when the British went back to Britain. Hence the settlements or abadis which were established and developed in Karachi City before 1947, and now have turned into slums are referred to as Pre-Partitioned katchi abadis (slums).

Post-Partitioned Katchi Abadis.

4.049 The katchi abadis or settlements established and developed after Independence (1947) having inadequate basic services and infrastructure are referred to as Post-Partitioned katchi abadis (slums).

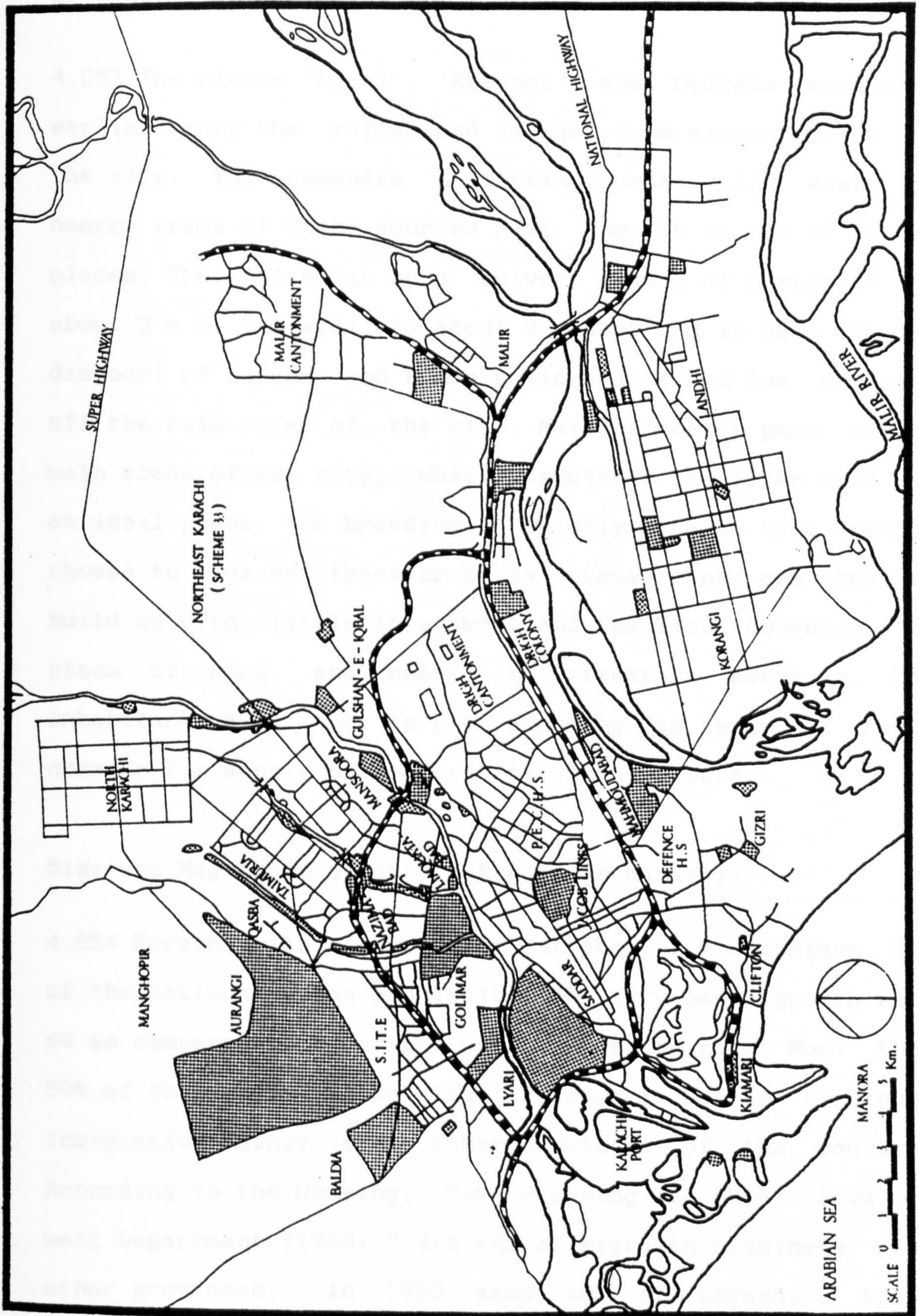
4.050 It is of great interest that in 1971 and afterwards many people entered Pakistan from the new nation of Bangladesh. The people who had moved into Pakistan during 1947 - 1955 and 1971 and afterwards still have relatives in Bangladesh and India, and therefore these people want to bring their relatives into Pakistan. At present about 0.3 M Beharis are expected to land at the country's International airport. These expected people have to be settled somewhere in the urban expanse. In this way the number of katchi abadis will certainly increase and no doubt the day will come when Karachi will become a 'place which no body likes'. Settlement of such large number of people, to provide them with basic services and opportunities for jobs of different nature is not a simple task. Each of these problems needs deeply researched to propose effective measures to solve these problems in Karachi metropolitan area.

Distribution of Katchi Abadis² in Karachi Metropolis.

4.051 Determining the distribution of the total katchi abadis and their locations in Karachi is a difficult task because katchi abadis of varying size particularly those of a small size are to be found in every part of the city. The total number of katchi abadis could not be identified in a limited time with limited skills. Karachi's major katchi abadis are found to be in Baldia, Landhi Korangi, Lyari, Mango Pir and Orangi. (see fig 4.2) It also is assumed that certain sites such as banks and beds of rivers, passing through the city for several kilometers have a propensity for turning into slums. The one called Lyari river bed particularly from Pir Illahi Buksh Colony up to 'Juna Dhobi Ghat' (old washer men place), is a long narrow stretch of abadis extending over many kilometers. The other called Malir river passes nearby Korangi industrial area. It also has many unauthorised settlements and old villages on its banks and in beds which are considered slums.

4.052 In addition to these two big rivers, 'Nallahs' of Karachi also invite the formation of katchi abadis. One nallah named 'Gujro' between Nazimabad and Liaqatabad is full of juggis, where inhabitants live in miserable conditions. The other nallah named 'Orangi' has attracted a large number of industrial and commercial labourers. Most of them work in informal sectors and some work in different factories of 'Sindh Industrial and Trade Estates' (S I T E).

Figure 4.2 KATCHI ABADIS IN KARACHI, 1981.



SOURCE: LAND FOR HOUSING THE POOR 1983

Nallahs.

4.053 The rivers 'Lyari', 'Korangi', and 'Nallahs' mentioned earlier carry the refuse and sewage from several parts of the city. The sweepers collecting human solid waste in nearby areas of these sources also dump it in one of these places. The nallah (an open culvert system of sewerage) is about 3 m to 5 m wide and about 3 m deep and is used for the disposal of refuse and human solid waste and for draining off the rain water of the city. Nallahs mostly pass nearby main roads of the city, where mosquitoes and flies find it an ideal place for breeding. The only reason that people choose to live on these areas is because they are easy to build on with little investment and skills, convenient to place of work, and nearer to transport services. The inhabitants have not to pay anything in terms of rent, charges for supply of electricity, gas and water.

Size and Magnitude of Katchi Abadis in Karachi.

4.054 Karachi with a population of about 7 M comprises 22% of the national urban population. The city has a growth rate 6% as compared to 3% of the national growth rate. More than 50% of this massive population increase is due to continued immigration mainly from other provinces of the country. According to the Housing, Town Planning and Rural Development Department (1983) " 4/5 ths of migrants originate from other provinces." In 1983 about 40% of Karachi's total

population, more than 2 M people were living in 362 katchi abadis spread over an area of 56 sq km. According to the Housing, Town Planning and Rural Development Department (1986) " 37% of Karachi's population is living in 432 large and small clusters of katchi abadis." (See Fig 4.3)

Figure 4.3 Socio Economic Characteristics of Katchi Abadis

Description.	1980	1985
Social.		
Number of Katchi Abadis	362	432
Area covered by Abadis sq km	56	60
Population living in (M)	2.3	2.6
% of total city's population	33	37.6
Size of Plot sq m	50	50
Average density (persons per hectare)	375	925
Average household size	6.5	(persons) 7.4
Population increase (M)	0.2	0.2
Area added (sq km per annum)	4	4
Economic.		
	%	%
Skilled workers	20	19
Unskilled workers	27	28
Self-employed	25	19
Administrative	12	14
Unemployed	16	20
Median monthly income/household	Rs.750	Rs.1400

Sources: Housing, Town Planning and Rural Development Department (1986),

Directorate of Sindh Katchi Abadis (1988).

According to D S K A, out of 432 katchi abadis, about 288 settlements have been declared regularisable and the remaining 144 katchi abadis are still under the process of research and evaluation.

Policies for Reducing Problems in Karachi Metropolis.

4.055 In their attempts to clear the many spontaneous settlements of Karachi and resettle the affected poor inhabitants in decent houses with all infrastructure and other basic services and employment opportunities, the Government of Pakistan and the other existing local organisations have applied different development policies aimed at overcoming such problems at National and Local level, as follows:

At the time of Independence (1947), the Government allowed refugees to occupy all available land and vacant buildings in the city. Three years after Independence, in 1950, the Karachi Improvement Trust (KIT) was established to tackle the housing problem and the settlement of displaced people in the city. In 1952, the Government invited a Swedish firm of consultants namely M/S. Mery Raudel Valten to assist the KIT in the preparation of the first development plan for Karachi. 'The Greater Karachi Plan' aimed at the creation of a new administrative authority for a large area which would be responsible for the resettlement of the refugees in 10-storey flats on the land that refugees had occupied in the city. The purpose of constructing high-rise buildings was to put displaced families together and nearer to their workplaces, so that the poor families would save on costs of transport. On the other hand it was proposed that the

Government would utilise minimum expenses in providing facilities.

4.056 During the period of seven years (1951 - 1957), the Government established other organisations, departments and institutions in the city. In 1957, the KIT was upgraded and became the Karachi Development Authority (K D A). As soon as K D A started development of the new administrative area for further planning in the city (following the recommendations of the Greater Karachi Plan), in 1958, a Military Government was established in the country. The newly established Government imposed a number of decisions which threatened both the housing policies for the urban poor and the other developments in Karachi. Of these decisions, the one which most affected the Greater Karachi Plan was the one not to proceed with the establishment of the new administrative area. Not only this, but Islamabad was made the capital of the country, so that Karachi lost its capital status. At the same time the Military Government announced an Agro-industry policy at National level. In view of this policy a decision for industrialisation was taken along with the decision to promote mechanisation and the use of fertilizers along with new varieties of seeds in agriculture. Despite the shifting of the capital, it was decided that Karachi was the natural place for the development of new industries. The people of the country took advantage of this: many people moved from the rural areas of Sindh and other parts of the country towards Karachi. According to Arif (1987), " this migration

increased the city's growth rate to over 7 percent per year in 1960."

4.057 In 1959, the Government of Pakistan invited Doxiadis Associates, a Greek firm, to plan and develop low-income residential areas around the fringes of the central city. The consultants established a data base for Karachi City and conducted various surveys. According to the house survey, Arif (1987) says, "there were 119 K homeless families living in the city centre, only 90 K families were local and the remaining were migrated". After an analysis of their surveys, Doxiadis Associates prepared the 'Greater Karachi Resettlement Plan'. The Plan estimated that in a period of 15-20 years Karachi would require 0.5 M housing units. The plan itself confirmed to build 0.3 M housing units for the poor, whereas, for the remaining 0.2 M units, the Government undertook responsibility to develop plots with services. To solve the problems of the poor as well as making the city centre neat and clean, the Greater Karachi Resettlement Plan proposed the development of two Satellite Towns: Korangi and New Karachi, at distances of 16 to 24 km from the city.

4.058 The two new Townships were to be developed under Phase 1 of the Plan. In the vicinity of these townships, large industrial areas were also proposed and incentives were provided to industrialists to establish in these areas. In view of the Government's decision 'to move unauthorised occupants out of the city centre' the major component of the

development of new townships was, according to Arif (1987), "clearance of the inner city slums and shifting of the affected residents to the new sites." The two Satellite Towns were expected to accommodate 0.4 and 0.2 M people respectively from the inner city katchi abadis. It was also assumed that those so displaced would be provided with jobs in the proposed industrial states and as a result the two satellite towns would become independent of the city. According to Arif (1987) "initially 45 K one-roomed nuclear houses were estimated for these two townships complete with all urban services." But available information shows that the targets fixed in the actual plan were not achieved and, according to Schoorl (1983), "however 10 K units were built up to 1964, after which the plan was shelved." Half of those who were moved to Korangi and New Karachi returned to the city centre and settled there, or elsewhere on the fringes of the city, so as to be closed to their workplaces. According to Arif (1987) they returned "due to lack of jobs, physical development and financial difficulties, and sold their homes to speculators, who settled middle-income people in these houses." It is assumed that the people, due to lack of job opportunities and financial difficulties, were unable to repay development charges and instalments toward the cost of their houses.

4.059 During the period 1964-1974, the local authorities put their efforts into the development of another three townships viz, Baldia, Orangi and Qasba in the west of the

city, (refer to Figure 4.2). The inner city katchi abadis dwellers were asked again to move to newly established Townships. Under these schemes the rights of the tenure (legalisation of occupied land) were to be given to the settlers in the form of a 99-years lease. (common in the most of the cities of the Third World countries described in Ch.2) According to Arif (1987), "in these areas sufficient piped water arrived in 1982, and sewerage lines have not yet been laid. These townships are far from sufficient to meet the growing needs of the poor." The shift of inner-city slum dwellers and rights of ownership attracted others to settle around these areas. The subdividers have developed 24 sq km of public land consisting of over 60 K plots. Arif (1987) thus argued " The illegal settlements of west Karachi who presently consist of 1.2 M population owe their development to these three townships." The concerned authorities realised that due to non recovery of revenues from the users, the Government could not provide more funds from its revenues for the continuation of the township scheme. Hence it was decided that the schemes like Korangi and New Karachi which involved recovery of loans by instalments from the poor, should be discontinued.

4.060 In 1970, after winning the General Election in the country, the Bhutto Government and the Netherlands Government entered into an agreement by which a Joint Research Project (JRP) was to be undertaken over a period of five years. In the course of the project, a large amount of

research was initiated for slum improvement and urban development in Karachi, Lahore, Quetta and Peshawar. The Joint Research Project Committee conducted the surveys in the slum areas of the city. In the view of the Project Committee's recommendations, the local authorities chose Lyari, the oldest part of the city for improvement. In the context of Turner's concept of regularisation of a squatter settlement, "the World Bank lent Pakistan Rs.400 million (at the time US \$ 35 M) for the formation of the Lyari improvement project team, comprising Pakistani and foreign consultants with a remit to remedy the worst development excess of the area" (Mahar 1989). The purpose of forming the team was to plan improvements for the area: to issue leases for plots to occupants, to provide job opportunities by opening of commercial centres and other projects within the area, and to supply gas and household water connections to householders. It was decided that the residents would have to pay fixed charges, partially subsidised from the local authorities' finances as for other projects, the Government offered seed capital. It was intended that the seed capital would generate more revenue from local residents. This income could then be contributed to a revolving fund for use at a later stage in other katchi abadis.

4.061 By 1977, the political situation in the country had changed. Hence the ruling party's candidate for Mayor of the city promised the residents that if he were elected all residents would pay Rs.4.00 for residential plots and Rs.6 for commercial plots. At a stroke, due to that official announcement the seed capital (revolving fund) project was disrupted and people no longer paid charges for land and the physical development of the area. Hence the project was withdrawn and the recommendations were shelved in the hope that, if and when necessary they might be implemented later somewhere else in the city.

Master Plan for Development of Karachi Region.

4.062 On 17 March 1970, the Government of Pakistan signed a plan of operation for the creation of the Master Plan Project in Karachi Metropolitan Region with the United Nations Development Programme / Planning and Development Collaboration International Organisation (UNDP / PADCIO).

A team of foreign and local professionals was engaged in a vigorous series of inter-deciplinary exercises. As a result the Master Plan for Karachi Metropolitan Region 1974-1985 was created. This voluminous document describes in detail the policies, programmes, and projects recommended by the experts for the comprehensive planning and development of Karachi Metropolitan Region. The purpose of the plan was explained thus:

"Overall this plan should formulate guidelines for development in the period to the year 2000, with a sequence of investment to be made for short time e.g 1974-1985."

4.063 A major component of Master plan for Karachi Metropolitan Region was the 'Metroville' project, which incorporated the upgrading programme. According to the Master Plan Planning and Implementation Agency (1974),

"Metroville is a comprehensive programme for developing fully integrated and viable self-sustaining urban communities." The programme is based on several innovative concepts, new designs and special building techniques. It introduces the new development concepts of providing a 'utility wall' with connections for water, sewerage, gas and electricity on smaller plots, to ensure better standards of living environment, and to offer the possibilities of incremental building to match the resources of low-income target groups, without disturbing their family budget for the higher priorities like food, clothing etc. This programme was a major component of the overall housing programme to be undertaken between 1974 and 1985, with emphasis on a guided, aided self-help development with the ultimate aim of providing a proper and healthy environment for the inhabitants of the urban communities.

4.064 According to MPPAIA (1974), the Metroville project had the following objectives.

1. To provide the proper range of plot types matching the paying capacity of different income groups, particularly responding to the demand of lower-income groups.
2. To put more emphasis on environmental sanitation conditions by providing water, sewerage, electricity and gas connections, on a 'utility wall' in the kitchen, bath and toilet.
3. To encourage incremental building to match the family budget priorities and family needs; and discourage forced housing standards through built-up houses requiring more payment for housing, and thereby further curtailing the already deficient food budgets.
4. To arrange readily available house building loans to the lower-income groups, to enable them to finance their own housing.
5. To extend technical assistance to self-help builders, train construction labour, and guide building research into low-cost building methods and materials.
6. To provide electricity, gas, treated water supply and proper sewerage system; organise refuse collection, ditch cleaning, street maintenance, police and fire protection.
7. To organise proper health services and population planning programmes to create healthy, planned and prosperous families.

8. To support mother and child care and other social welfare programmes for community development.

9. To conduct adult literacy and public education programmes through mass communication media in order to develop a sense of civic (public) awareness and community responsibility.

10. To provide sufficient general education and training facilities for the local school-age population within the Metroville site.

11. To enhance family incomes by promoting local employment activities, particularly household handicrafts and small industries with loan facilities and vocational training.

12. To provide 40% of the residents labour force, employment opportunities within or nearby Metroville site, so as to minimise commuting trips, cut down transportation time and cost and reduce the load on the transportation system.

Scope of Metroville Project.

4.065 As stated in the Karachi Development Plan (1974), about 40 K dwelling units will be required for housing 0.2 M persons added to the city each year, which demand four metrovilles annually, each for 50 K persons to accommodate the additional population alone. Of the first four metrovilles, two were to be 'utility wall development' and the other two 'open plot development' schemes. The Master

Plan Department has suggested the following types of housing schemes for the development of Karachi Metropolitan Region.

Types of Housing Schemes Suggested in Metroville.

Utility Wall Development (U W D) Scheme.

4.066 Under this scheme, the utilities were to be provided inside the residential plot in a utility core with a small plinth area. Water points for kitchen and bath, a W.C and if possible a gas outlet attached to each plot. The construction of the house was left to the owner himself. The U W D scheme was aimed at providing secured tenure and the high standards of all urban facilities and basic services such as schools, hospitals, water supply, sewerage system, small industries and markets.

Open Plot Development (O P D) Scheme.

4.067 Like UDW, this scheme consisted of the provision of plots and quality standards of a guaranteed minimum. This scheme was intended to provide secure tenure to the owners and all urban services and infrastructural facilities except housing unit, either partial or complete. The aim of this scheme was, to help the very poorest people among the low-income group; to encourage economic activity by creating maximum job opportunities on site. Under this scheme, small scale industries and other economic activities were permitted on residential and on residential-cum-commercial plots.

Improvement and Regularisation Programme (I R P).

4.068 This programme was aimed at upgrading the existing katchi abadis by giving security of tenure to residents wherever feasible or by shifting the people from those areas where upgrading or provision of ownership rights was not possible to the regularised plots. For the implementation of the Improvement and Regularisation Programme the following strategies were suggested in the Master Plan of Karachi.

- i) upgrading of the settlements by providing urban services and by demolishing those houses, or part of those houses which obstructed the implementation of the upgrading plan.
- ii) an appropriate form of land tenure i.e grant of 99-years lease should be given to the residents of each settlement.
- iii) maximum community participation should be encouraged.
- iv) provision of a developed plot with services and / or core houses to the people displaced by the upgrading plan.
- v) recovery of land and development charges from the beneficiaries in easy instalments. For implementation of this programme, the government was to take the initiative and provide seed capital, which would operate as a revolving fund, to be recovered from beneficiaries against the land values and development charges. According to Master Plan Department, KDA (1974) "The charges for these physical improvements and legalisation of settlements, would be paid over a period of instalments and residents would only

receive lease to their land, when final instalment had been paid."

Some Salient Features of Metroville 1.

4.069 The following are the salient features of Metroville.

Site selection. After a careful examination of various possible sites in and around the city, the best of these was selected, south of Orangi township and very close to Sindh Industrial Trading Estate (SITE).

Area and proposed population. The selected site covers an area of 81.6 ha (0.816 sq km) which has been carefully planned for an ultimate population of 35 K.

Residence and recreation. The development plan of the project provides a maximum number of small plots for low-income families; 9 small parks and play grounds and one large play ground in the centre of the project.

Commercial plots. For commercial plots i.e sites for cinema, fuel station, post office, police station and site offices are located near the major roads.

Employment opportunities. The selected site is very close to SITE. It is also quite close to the central areas of Liaqatabad, Nazimabad and Golimar. It was proposed that Metroville 1 will be linked easily to the adjacent communities of Orangi and Balidia Open Plot townships. In this way the project will serve not only the local residents but also the surrounding areas. The residents will have

great opportunities of maximum jobs on the site and adjacent industrial and commercial areas.

Land values. Considering the poverty factor, in addition to the above attractive features, the local authorities fixed land values, at Pak Rs. 2.5 K (£125) minimum value of a residential small-sized plot.

Expectations or surety. Due to the above factors, the local authorities were confident that the low-income families, specially the industrial prolateriat, will be very interested and would occupy the residential plots immediately.

The development projects i.e Metroville and other initiated and implemented by KDA are shown in the following table 4.6.

Table 4.6 Development Projects / Schemes of the KDA for Low-income Groups of Karachi, 1970-1980.

Project	Year of announcement	Number of Plots developed (K)	Occupied Plots 1984 (K)
Metroville 1	1974	4.13	0.70
Metroville 2	1980	4.38	2.20
Metroville 3	1979	3.20	negligible
Metroville 4	1979/80	3.87	0
Shah Latif Town	1979	43.89	0
Deh Surjani	1980	51.00	0
Total		110.47	2.90

Sources: Arif Hassan and Associates (1987).

4.070 From the above table it appears that the Karachi Development Authority has announced various housing schemes in different years with the aim of providing shelter to the low-income groups of the city. But in fact the authority has not succeeded in the achievement of its goals in that the target plots have not been occupied by the target group in the numbers intended. The causes were as follows. The local authorities were unable to provide infrastructure- drainage system, water supply, electricity, gas and transport. The authorities also failed to provide jobs at proposed sites for the people who were asked to move from demolished low-income settlements. Due to lack of jobs and public transport facilities at proposed sites, the poor people have had to travel from and to their old workplaces by private transport. The private transport operators used to charge more money from the poor people for travelling. This cost the poor a substantial proportion of their daily earnings, which they could not afford. Hence the poor people preferred to stay near their workplace and the plots were not occupied by those for whom they were intended. Thus non-occupancy of the plots made the development projects a failure due mainly to the lack of services, transport and infrastructural facilities, and jobs for both skilled and nonskilled people.

4.071 From the Table 4.6 it is clear that of 110.5 K developed plots only about 3 K (2.7%) plots have been occupied. Of the total schemes only Metroville 1 and 2 have

been partially occupied and the remaining schemes have completely failed. Due to the reasons mentioned earlier the people from Metroville 1 and 2 have returned and settled in the centre or somewhere else in the city, which confirm the failure of all the schemes introduced by the Development Authority.

Recent Policies to Reduce Problems in Metropolitan Areas.

4.072 The katchi abadis constitute ugly patches in the city. The Governments have realised that because of their low income and often irregular earnings, the poor can not afford to buy or rent a house in developed urban areas, therefore, the poor resort to low-income settlements. The poor construct unauthorised dwellings on a self-help basis within the limits of their resources. The authorities concerned also have gradually recognised that the people living in these settlements are not worst than the people living in other developed parts of the city. Nevertheless attitudes towards the problems of low-income settlements have changed in the other developing countries as well as in Pakistan.

4.073 With regard to a slum clearance policy, it has increasingly been realised by authorities that the problem of housing shortage can never be solved by demolition of existing housing stock and by the shifting of a large number of residents to developed sites outside the city. According

to Dutch (1979) "houses which although illegally constructed are some time of good quality and of value to residents."

4.074 The Government has come to understand that, on the contrary, it should preserve this housing stock and concentrate its efforts on meeting the needs of katchi abadi dwellers by means of upgrading the existing settlements. Action to improve the living conditions in katchi abadis, should be a two-pronged approach.

"Regularisation = provision of security of tenure to the residents through the legalisation of their occupancy,

Improvement = upgrading of overall conditions in human settlement through the provision of basic urban infrastructure." (Dutch 1979).

4.075 In view of the national strategies of Regularisation and Improvement of Katchi Abadis, explained in the fifth National Five Year Plan 1978-1983, (Refer to Ch.3) On 1 January 1978, General M. Zia-ul-Haq, the President of Pakistan and Chief Martial Law Administrator issued a policy statement. After the fall of the Bhutto Government (July 1977), Zia-ul-Haq in his address to the Nation announced that, all Katchi abadis existing on or before 1 January 1978 shall be regularised. (H T P & R D D, 1982).

4.076 In the pursuance of the President's announcement, the Governor and Martial Law Administrator of Sindh Province

promulgated Martial Law Orders 67 and 110 which laid down a comprehensive policy for regularisation and improvement of katchi abadis in Sindh (see Appendix 1 for notification of orders). According to the Martial Law Orders, any part of the urban area owned by the Provincial Government or Local Authority, which has been partially or totally occupied unauthorisedly prior to 1 January 1978 for residential purposes and continues to be so occupied shall for the purpose of this order be known as katchi abadi.

4.077 In order to enforce these orders the Governor wished to establish a permanent organisation. Therefore the Sindh Katchi Abadis Authority (S K A A) with its head office in Karachi was established to resolve the problems of these settlements in the urban areas of the Sindh Province.

The Directorates of Katchi Abadis in Karachi Metropolitan Corporation and Hyderabad Municipal Corporation and Regional Office at Sukkur Municipal Corporation were established respectively. In view of the President's policy statement the Directorates of Katchi Abadis in the capital cities of other provinces were similarly established. Under the instructions of MLOs 67 and 110, the Directorate of Katchi Abadis, reconsidered the Improvement and Regularisation Programme suggested by the Master Plan Planning and Implementation Agency (MPPIA) Karachi Development Authority in the Master Plan for Karachi Region 1974-1985. The Directorate prepared an order of preferences. One of these

preferences prepared by the D K A (1988) states that, "A katchi abadi, coming into existence after 1st day of January 1978, shall be treated as an encroachment and be dealt with in accordance with the law dealing with the encroachment for the time being in force".

4.078 The Directorate of Katchi Abadis and Karachi Metropolitan Corporation, in order to implement the policy statement issued by the President of Pakistan (in view of National Five Year Plan 1978-83) made another attempt to upgrade katchi abadis in Karachi. Under the instructions of MLOs 67 and 110, the Directorate of Katchi Abadis has established a research and evaluation cell (wing) in the office of Karachi Metropolitan Corporation (KMC) in order to carry out the process of improvement and regularisation of katchi abadis in the metropolitan area. The research and evaluation cell with the help of the Dutch Advisory Mission has adopted the following planning and implementation process for Improvement and Regularisation of Katchi Abadis in Karachi.

Table 4.7 Planning and Implementation Process for the Improvement and Regularisation of Katchi Abadis.

Survey	Planning	Regularisation
identification inventory	analysis, concept planning	area improvement funds,
reconnaissance survey	land use, roads network, services, budgeting, fixation of lease rates	collection of improvement charges.
determination of priorities	detailed muhalla survey	issue of lease
physical survey		implementation construction
socio-economic survey of area		

Source. Dutch Advisory Mission (1979).

4.079 The planning and implementation process presented in the table 4.7 constitutes many steps: surveying, physical planning and development of the area, collection of lease rates and development charges from beneficiaries until the actual housing construction starts. The whole process of action planning and practice seems a reasonable procedure for the purpose mentioned above. The author intends to evaluate the implementation of the above proposed process of improvement and regularisation of katchi abadis in Karachi metropolis.

4.080 After conducting surveys of a different nature in various katchi abadis of the city and analysing data gathered from katchi abadis in Karachi, the authorities considered the socio-economic conditions of the poor in Baldia (an Open Plot Development Scheme) in particular. Located on the periphery of the city, Baldia presently consists of 24.5 K plots, accommodating 220 K population. For the implementation of the remaining steps of the process mentioned in Table 4.7, the authorities fixed lease rates for different categories of plots offered by them to the urban poor in 1979. The following table 4.8 represents the lease rate structure per sq m for Improvement and Regularisation of Baldia Township.

4.081 The Karachi Metropolitan Corporation has been carrying out improvement works in Baldia since 1977, but the actual implementation of the programme did not begin until 1980. This shows the inefficiency and lack of interest of the officials in public projects. The people visited offices many times but they found that staff had disappeared from their positions. In some cases clerical staff hide facts from the people and give information only to those who offer gifts or pay some money (bribe). Nientied (1985) confirms the lack of publicity, "in the majority of cases this knowledge was acquired from neighbours and not from KMC." This shows a lack of publicity about development projects by the Local Authorities.

Table 4.8 The Land Use, Plot Size and Lease Rate per sq m for the upgrading of Baldia Township 1979.

Land Use	P l o t S i z e (sq m)			
	Lease Rate (Pak. Rs. per sq m)			
	0-67	68-100	101-167	168 and above
Public	1.2	1.2	1.2	1.2
Residential	18	18	30	60
Resid/Comm	36	36	60	84
Commercial	120	120	120	120
Industrial	120	180	180	360

Source. Dutch Advisory Mission, (1979) with change in units.

4.082 The above table shows the size and lease rate of various categories of plots. The residents pay lease charges in accordance with the size of plot they occupy and its category of use. Since it is assumed that the low-income families generally occupy smaller plots than high-income families, lease rates within any particular land use category as fixed by the authorities are differentiated according to plot size. From the table it seems that the improvement and regularisation project was not only for low-income families: it also offered opportunities to high-income families to occupy land in the same area.

4.083 In the author's view the authorities have failed to recognise an important factor viz. size of family. For example, a family of 7 members (an average size of family in

a katchi abadi) with a low income cannot occupy a large plot. They have to apply for a small-sized plot and build limited rooms, which results in overcrowding, disease and an insanitary living environment for residents. On the other hand, the families with income enough obtained plots from the authorities concerned. But due to improper execution of programme for development in selected area and lack of basic services and infrastructural facilities, those people who obtained plots did not pay charges for lease of plots and for partial development in area. According to Maher (1989) "The experience from Baldia shows that recoveries from lease charges lagged behind as residents were reluctant to pay so long as they did not see improvement carried out." Hence in the author's view high lease rates and non-payment of charges are also the reasons for failure of the programmes for improvement and regularisation of katchi abadis in metropolitan area. The actual achievement in terms of services and infrastructural facilities provided in Katchi Abadis by the local authorities is shown in Table 4.9.

4.084 The table 4.9 shows the range of services that the concerned authorities have provided under the improvement and regularisation programme initiated in 1979. From this table, it is clear that none of the above mentioned services are available to more than 65% of the dwellings in the katchi abadis. In some abadis the services are provided upto 10% of the total dwellings only. This Table also confirms a substantial difference in the provision of services in the

two major katchi abadis: Baldia and Korangi in Karachi. In Korangi except water supply (45%), the other services range from 10% to 15%; whereas in Baldia all the services range from 45% to 60%. The statistics shown in this table confirm a partial success of improvement and regularisation programme in katchi abadis of Karachi.

Table 4.9 Services Provided (% Dwellings) in Katchi Abadis Under the Improvement and Regularisation Programme, 1983.

Name of area	Area (sq km)	Roads (%)	Water supply (%)	Sewerage (%)	Electricity (%)
Orangi	15.0	15	40	10	15
Baldia	4.0	45	60	55	60
Bhutta village	0.6	45	50	15	30
Gulbhar	1.3	65	65	55	60
Golimar	0.8	60	60	45	65
Korangi	0.2	10	45	15	10
Nishtar Basti, Ghousia colony, Goharabad					
Furqanabad	0.5	35	60	40	60
Total	22.4				

Source. Karachi Development Authority (1985) (changed).

4.085 Karachi being the largest city of the country and a multi-ethnic society, suffers from frequent ethnic riots, language riots and political crisis. This city also plays an important role in the country's economic development. During a mass crisis against any political Government, Karachi has a significant profile. Due to overcrowding, illiteracy, poverty, unhygienic conditions, poor transportation network, shortage of water and insanitary conditions, poor management (administration) and inefficient law enforcement, one can safely say that the people living in poor urban areas are frustrated, confused, absorbed with personal difficulties, and develop destructive mentalities. For this reason the Military Government, to enhance its popularity, announced the regularisation and improvement of the katchi abadis to achieve the mass support of the poor people of the country from time to time. The Government wanted to divert the attention of people from civilian politicians. That is why the Governor and Martial Law Administrator of Sindh Province, in pursuance of the President's announcement of 1 January 1978, re-announced on 4 September 1982, the same policy for the third time with slight modifications (see Appendix 2 for contents of Order). This time MLO 183, merely clarified some terms used in previous orders, distributed the powers among concerned authorities and entrusted it to the local councils.

4.086 In 1985, the Martial Law Government, at the demand of political leaders held a Non Party Basis election in which

the Muslim League and other Religious Parties took part in contesting the election. The president of Pakistan Zia-ul-Haq reserved all powers with himself and a semi-political Government was formed. He himself acted as a political leader of the Muslim League. After three-and-half years of the issue of MLO 183, Muhammad Khan Junejo, the Prime Minister of Pakistan on 7 April 1986, announced the previous policy of Regularisation and Improvement of Katchi Abadis with the amendment that "all katchi abadis existing on or before 23 March 1985 will be regularised." The Prime Minister allocated Rs. 500 M for the development of katchi abadis in the country.

4.087 Some salient features of the policy are as follows.

1. Grant of proprietary rights with immediate effect to residents of all katchi abadis of at least 40 families.
2. Residents willing to pay development charges in a lump sum shall be entitled to 50% rebate.
3. Exemption from recovery of development charges for orphans, widows and handicapped persons.

The salient features of the policy announcement made by the Prime Minister of Pakistan actually are an extension of the National Strategy mentioned in the sixth National Five Year Plan 1983-88, (discussed in Chapter 3).

4.088 The Governor and Martial Law Administrator of Sindh promulgated Martial Law Orders 130 and 202 under which all abadis established after 1978 were to be demolished: whereas, the Prime Minister announced "all katchi abadis settled before 23 March 1985 could be regularised". This change in date was considered to be an acceptance of katchi abadis by the Government. The residents of these settlements felt that this acceptance was an indication of the growing political power of the abadi residents and the inability of the Government to provide developed sites for the urban poor. Thus the sub-dividers (speculators) felt that the demolition or prevention of further squatting will simply not be possible so they themselves and other migrants continued squatting in the city. This has caused not only an increase in the number of katchi abadis and slums but also put pressure on services in the city.

Conclusion.

4.089 The three main semi-Government bodies: the Sindh Katchi Abadis Authority and its Directorate, the Metropolitan Corporation and the Karachi Development Authority with the collaboration of other organisations working under control of the Planning and Development Department Local Government: the Housing, Town Planning and Rural Development Department, Karachi Electricity Supply Corporation, Karachi Gas Supply Company, Karachi Water and Sewerage Board, Sindh Highway Department and Karachi Bureau

of Traffic Engineering are working very hard to make the city free of air and water pollution, neat and clean; to supply water, electricity and gas to the maximum number of houses; and to improve as many settlements as possible by provision of infrastructural facilities and social services.

4.090 To improve the economic conditions of the urban poor, the concerned authorities have been suggesting the opening of small industries and social welfare centres, and encouragement of handicrafts.

4.091 The whole post partition political development period could be divided into four intervals viz. from 1947- 1957, 1958-1970, 1971-1977 and 1978-1988. For most of that period (23 years), Pakistan has remained under Military Government. In the earlier policies of providing shelter to the families displaced during migration related to Independence, in view of the national policies, the local authorities initiated programmes of 'emergency refugees houses', 'displaced persons colonies', and 'public servants houses'.

4.092 In order to put displaced families into multi-storey flats, the Authorities demolished two major inner-city slum areas, South-Lyari and Jacob Lines and redeveloped them with multi-storey buildings. According to KMC (1984), " in both areas some parts were demolished and replaced by a few blocks of flats, however, the prices of the flats were far too high for slum dwellers." Thereafter, the authorities

launched a resettlement programme in the city. The main component of this programme was 'slum clearance' by demolition and 'relocation' by shifting the inner-city slum dwellers to newly developed areas on the outskirts of the city. The Greater Karachi Resettlement Plan (1959) "however was stopped as it was found that the Government had to subsidise the project too heavily, to keep houses within the paying capacity of the low-income groups." (KMC, 1984)

4.093 After the failure of the two satellite towns, the authorities provided plots and other services in townships like Baldia, Orangi, and Qasba (1964-1974). These projects proved only partially successful, as many people were shifted from central parts of the city and settled in townships before the infrastructure was provided. However, due to the failure of the previously adopted programmes and policies, the authorities have been trying one after another to solve the problems.

4.094 The Master Plan for Development of Karachi Region 1974-1985-2000 is a valuable document. The schemes and programmes described in it were carried out on a large scale to provide decent houses with all infrastructure and basic services along with opportunities of employment. Metroville, the major component of the plan is a comprehensive programme for the development of the city in a short time and is a reasonable basis for a long-term development strategy.

4.095 Judging the minimum extent to which the 12 basic objectives of the Metroville programme have been implemented and achieved, however, one can conclude that the concerned agencies had failed to provide infrastructure and other services along with decent housing and better job opportunities in and around the Metroville. The data presented in Table 4.6 confirms the failure of the authorities in providing plots, core walls, and rights of ownership to occupants. This table itself explains that instead of the proposed 4 Metrovilles a year, in the city, the authorities could only provide 4 Metrovilles over 10 years. Of these 4 Metrovilles only 2 were partially occupied by a lower number of occupants.

4.096 The author completely agrees with the views of Siddiqui, an academic researcher, about the failure of the Metroville programme. According to Siddiqui (1980), the following are the problems and constraints that hampered an effective implementation of Metroville 1:

1. Lack of intra-department and inter-agency coordination.
2. Shortage of water supply.
3. Indifference of target group.
4. Inadequate number of trained and qualified staff.
5. Speculation by allottees.

4.197 Due to lack of services and job opportunities unsuitable to allottees, the first owners had sold plots to middle income groups and had squatted elsewhere in the city.

The second owners had built houses of their own choice in Metroville 1. Arif (1987) states "almost all residents of Metroville 1 are second owners, have demolished utility walls and they have constructed houses similar to ones in middle-class areas of the city."

4.098 The other programme, Improvement and Regularisation has played a vital role in the policy announcements for the development of existing slums and squatter settlements. Even now this programme has been explained as a National strategy in the seventh National Five Year Plan (refer to Ch.3).

The success of policies and programmes, adopted by the Government of Pakistan at national level, and implemented at Provincial and metropolitan level could be further assessed from the present management system and findings of empirical work of research. The following chapter describes structure and functions of the existing planning and development departments, and other organisations and utility agencies that are involved in the process of implementation of the policies and programmes for the development in metropolitan areas in particular. Chapters 6 and 7 present results and diagnosis of results obtained from the analysis of primary data collected in Lyari and Korangi- katchi abadis of two different types in Metropolitan Karachi.

Chapter Five. Existing Structure And Functions Of Planning Agencies At National, Provincial And Metropolitan Levels.

Introduction.

5.001 The process of planning and its implementation for development in the world's developing nations is a common phenomenon, which could be said to be based on western systems. Existing methods of implementation which are assumed as a recipe for physio-socio-economic development of settlements do not provide a really appropriate solution to the problems, nor they do change the quality of life in the developing countries. The inability of these nations to achieve the targets of their development plans is simply described in two words 'inadequate implementation' or 'poor management'.

5.002 One of the major characteristic features of planning for development in the developing countries is the contents of the Development Plans. These Plans are usually a catalogue of the Federal and State Governments' mainly current development projects and service improvement schemes over a conventional Five Year Plan period. The reasons for the failure or weaknesses of the process of planning and its implementation most commonly associated with the developing nations are shortage of funds, non-utilisation and maldistribution of available funds.

5.003 This section deals with the organisational structures of various Planning Departments and Attached Agencies and, their functions at the National, Provincial and Local levels in Pakistan. Up-to-date information about the existing structure and functions of the Planning and Development Organisations in Pakistan, Sindh and Karachi is briefly explained in the following sections. (For detailed information about departments attached to the Planning and Development Department of Sindh Province see Appendix 2.) This information will provide an opportunity to evaluate the existing process of implementation of the policies and programmes for solving the problems of housing and service facilities at national, provincial, metropolitan, and case study areas in particular.

5.004 The assessment of the present system of management and its impact on development process in Karachi as a whole; and in the case study areas in particular will help the author to suggest some necessary changes (wherever required) in the system in order to make it more effective. The author may propose (if felt necessary) modified management system which could be applied as a guiding instrument for the execution of selected policies to reduce the problems of the human settlements in the metropolitan areas of Pakistan and in Karachi in particular.

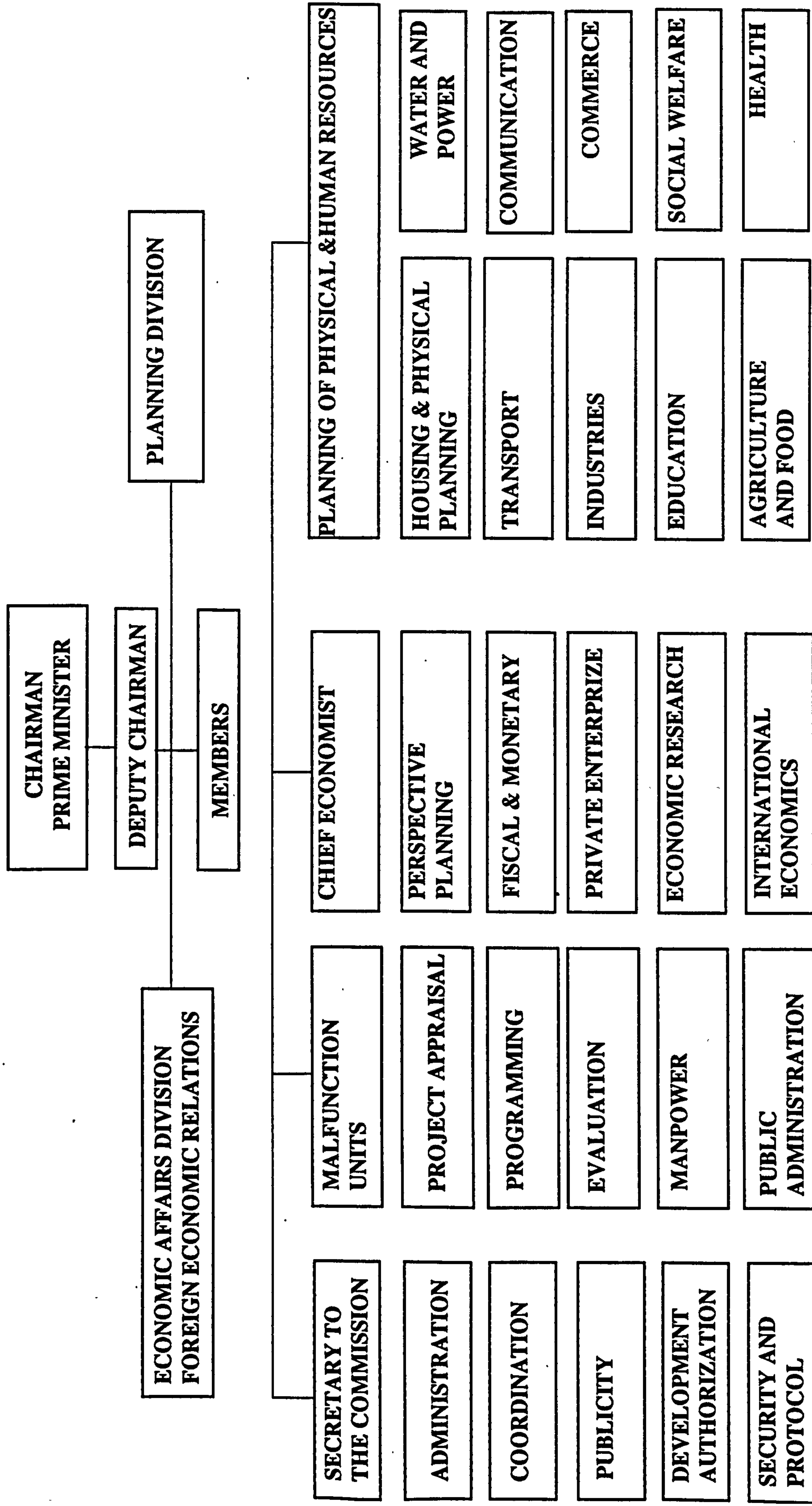
Planning Commission and its Functions (National).

5.005 The Government of Pakistan is headed by the Prime Minister and the President. The Prime Minister is elected by the Members of National Assembly (MNAs) and is assisted by the Council of Ministers selected by him / her. He / She presides over the meetings of the Council of Ministers and the meetings of the National Economic Council which takes final decisions in the respect of all economic policies and projects prepared by the Planning Commission. The Commission has authority for the planning and development in Pakistan. It has the status of a Division in the Prime Minister's secretariat, with the Prime Minister himself or herself as the Chairman of the Commission.

5.006 The Deputy Chairman, who has the status of a Central Minister without Cabinet rank, is the operational head of the Commission (See Fig 5.1). There is a Central Secretariat which implements the decisions and policies of the Prime Minister. Each Division of a Ministry is headed by a Secretary or a Joint Secretary.

5.007 The Ministry of Finance and Economic Affairs has two Divisions, for Planning and Economic Affairs respectively. In the case of Planning and Economic Affairs Divisions for the decisions at the ministerial level, the Secretary is responsible to the Deputy Chairmen of the Planning and Economic Affairs Divisions.

Figure 5.1 HOUSING AND PHYSICAL PLANNING UNIT IN PLANNING COMMISSION AT NATIONAL LEVEL



5.008 The Planning Commission performs the functions with the help of a group of economic and technical sections. While the Economic Affairs Division deals with assessment of economic requirements of the country and arranges negotiations with foreign Governments for the procurement of foreign Economic Aid and Technical Assistance, the Planning Division deals with the Planning of Physical and Human Resources of the country. This Division formulates the National Plans and the development programmes, prepares overall evaluation of progress achieved against targets fixed in previous National Plans, and statistical data for the receipt of International Economic Aid and Assistance.

Functions of the Planning Commission (National).

5.009 The Commission carries out the following functions;

1. Preparation of National Plans at periodic intervals;
2. Preparation of Annual Development Programmes within the framework of the National Plan and its priorities in respect of inter-and intra-sectoral allocations of resources;
3. Approval of development projects and watching and guiding their implementation;
4. Evaluation of the progress of projects;
5. Assessment of performance against targets fixed in the previous plans;
6. Identification of causes of delay in the implementation of projects;

7. Assessment of the human and material resources of the country;

8. Analysis of, and recommendation on, important economic policies and programmes.

Provincial Governments and Planning Departments.

5.010 Each Province of the country is headed by a Governor (Constitutional Head), and a Chief Minister as its Chief Executive. The Governor is appointed by the President and in the performance of his functions he is to act on and in accordance with the advice tendered to him by the Chief Executive, who is assisted by a Council of Ministers selected from amongst the members of the Provincial Assembly concerned.

5.011 Like the Federal Secretariat, each Ministry / Division is headed by a Secretary, Additional Secretary and Joint Secretaries. A Chief Secretary coordinates the activities of all departments of the Provincial Government. Each Province is divided into Divisions and each Division into Districts. The executive head of each Division is called Commissioner and that of a District, the Deputy Commissioner. They are responsible for general administration, law and order, internal security, collection of revenues and, therefore they exercise full authority in these matters. The Provincial authorities make their own budgets and receive and disburse their own revenues, the Federal Government however, provides

development grants on the basis of the population of each Province.

Provincial Planning and Development Departments.

5.012 The Planning Commission is mainly responsible for preparing National Plans and Annual Development Plans, and for approval, watching and guiding of implementation of development projects and related economic policies at National level. On the other hand the Provincial Planning and Development Departments have responsibilities for the preparation and coordination of the Provincial Plans and Programmes, and for their implementation. The Planning and Development Department of each Province is headed by an Additional Chief Secretary and each has administrative, physical planning and housing and, finance departments.

These three departments together operate in Planning and Development Department as a Provincial Development Working Party (PDWP). At the same time these three operate within the concerned Administrative Department as a Departmental Development Working Party (DDWP) with powers to sanction projects up to Rupees 30 M (£ 0.8 M). The Provincial Planning and Development Department has functions similar to those of the Planning Commission in respect of their Provinces. The Provincial Planning and Development Department performs its duties through the Cells (sections) established within the Department.

Working Parties for Processing and Approval of ADP.

5.013 For the processing and approval of individual Annual Development Programmes, the National Economic Council (NEC) and its Executive Committee (NECEC) work as the Central Development Working Party (CDWP), while the Administrative, Physical Planning and Housing and, Finance Departments of each Province work as a Provincial Development Working Party (PDWP). These two working parties act as the life-blood in the process of preparing Annual Development Programmes. The PDWP and DDWP are linked with the Central Development Working Party (CDWP) which consists of NEC and NECEC at the Federal level.

Preparation of Annual Development Programme.

5.014 The Annual Development Programme consists of on-going schemes and new projects. So as not to be ignored in the long-term National Plan (Five Year Plan), preparation of the Annual Development Programme is undertaken by the Provincial Working Party (PWP) for each Province in advance. The three concerned agencies are: Administrative Department as a sponsor, Planning and Housing Department as an approval authority and the Finance Department as a fund agency. The Development Schemes approved by the PDWPs are submitted to the CDWP with the Planning Commission for final approval and release of the funds for their implementation.

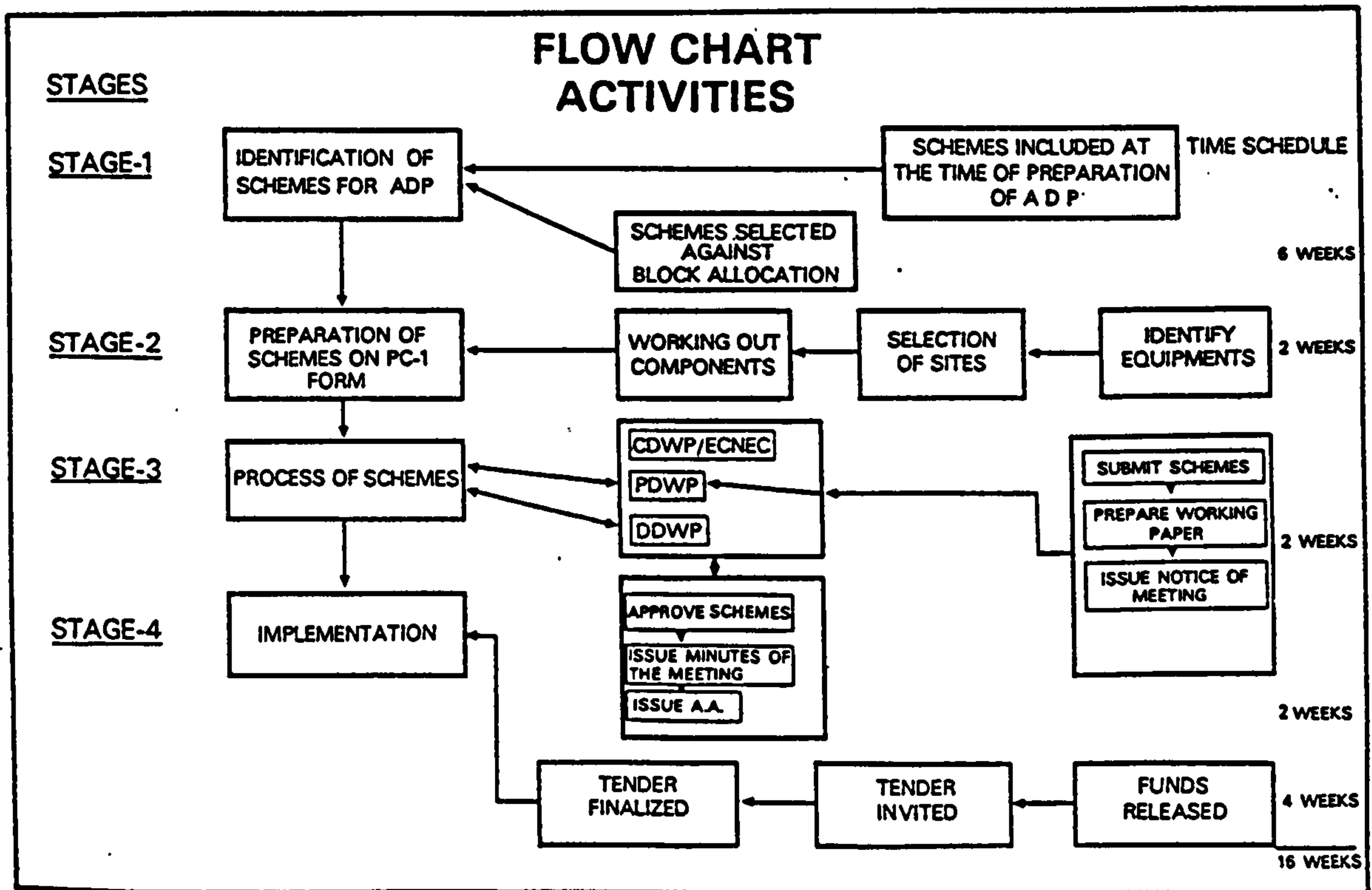
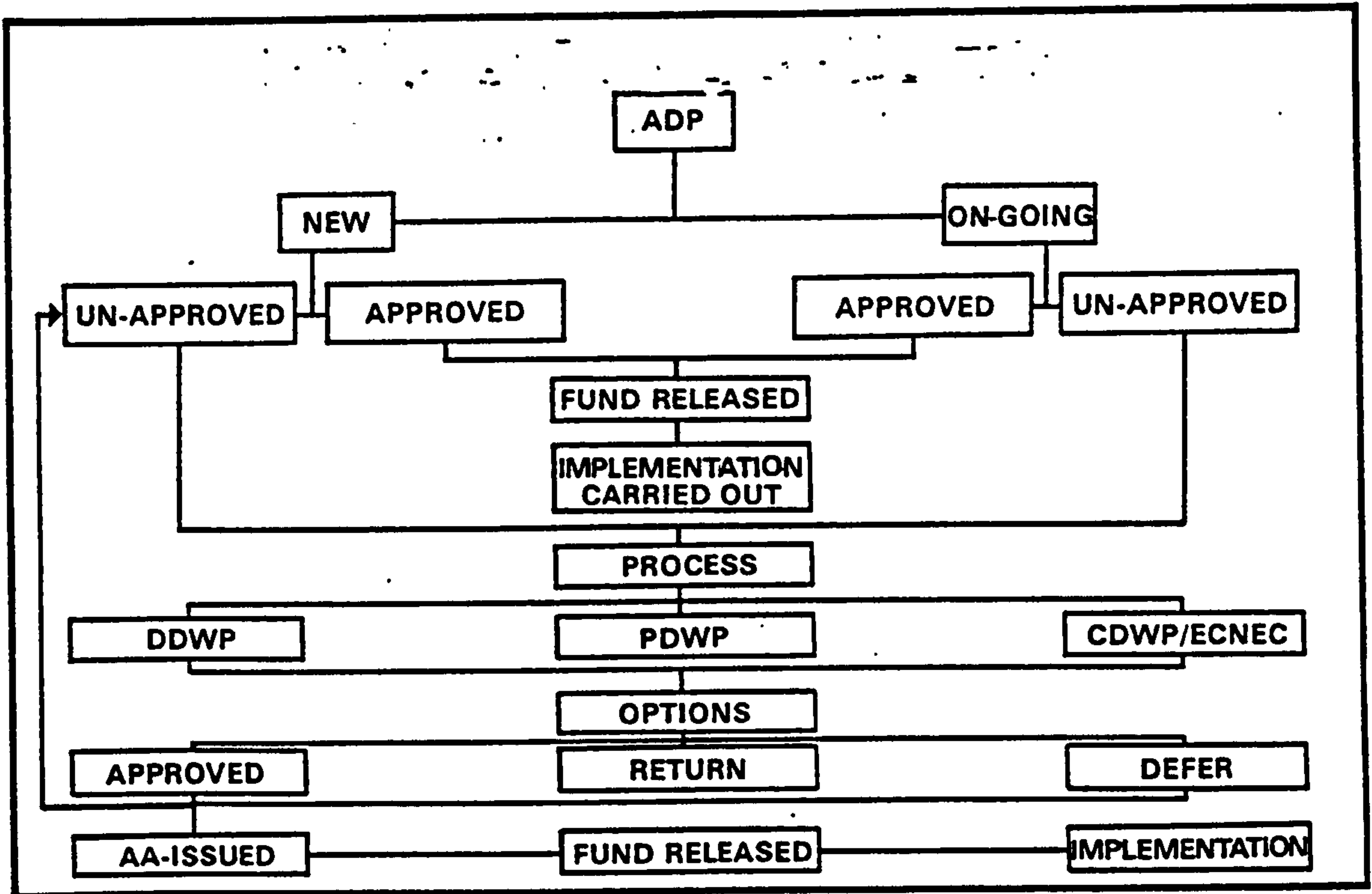
5.015 The Central Development Working Party has the authority to approve, reject, defer or return the project for revision or modification. If a project fails to satisfy the requirements of the Central Working Party, it is either deferred for want of more information or is rejected. In the latter case it is modified and resubmitted for approval and hence, it has to proceed through the same process again.

5.016 A special feature of the Annual Development Programme is that the cost-heavy projects are co-financed with the International Aid Agencies. In aid negotiation and in the process of approval of the project in accordance with the terms of agreement, the Planning and Development Department of each Province plays an important role in coordination with the Federal Agency, the External Source of Aid and the Department that is sponsoring the project. The following Figure 5.2 depicts various stages involved and the time that is consumed in the process of development schemes. The figure shows right from identification of the schemes for inclusion in the ADP document, to the stage of its implementation. The whole process is completed within 16 weeks.

Planning and Development Department Sindh Province.

5.017 The Planning and Development Department of the Government of Sindh Province came into existence on 1st July 1970. At present this department consists of 171 officers and other staff distributed among the technical and

Figure 5.2 PROCESS OF DEVELOPMENT PROGRAMMES



SOURCE: 'MANUAL' PLANNING & DEVELOPMENT DEPT. GOVERNMENT OF SIND 1985

administration sections. The Department plays an important role in the process of physio-socio-economic developments of the Sindh Province and it is mainly confined to the public sector developments. The functions of the Planning and Development Department Government of Sindh Province are as under.

Functions.

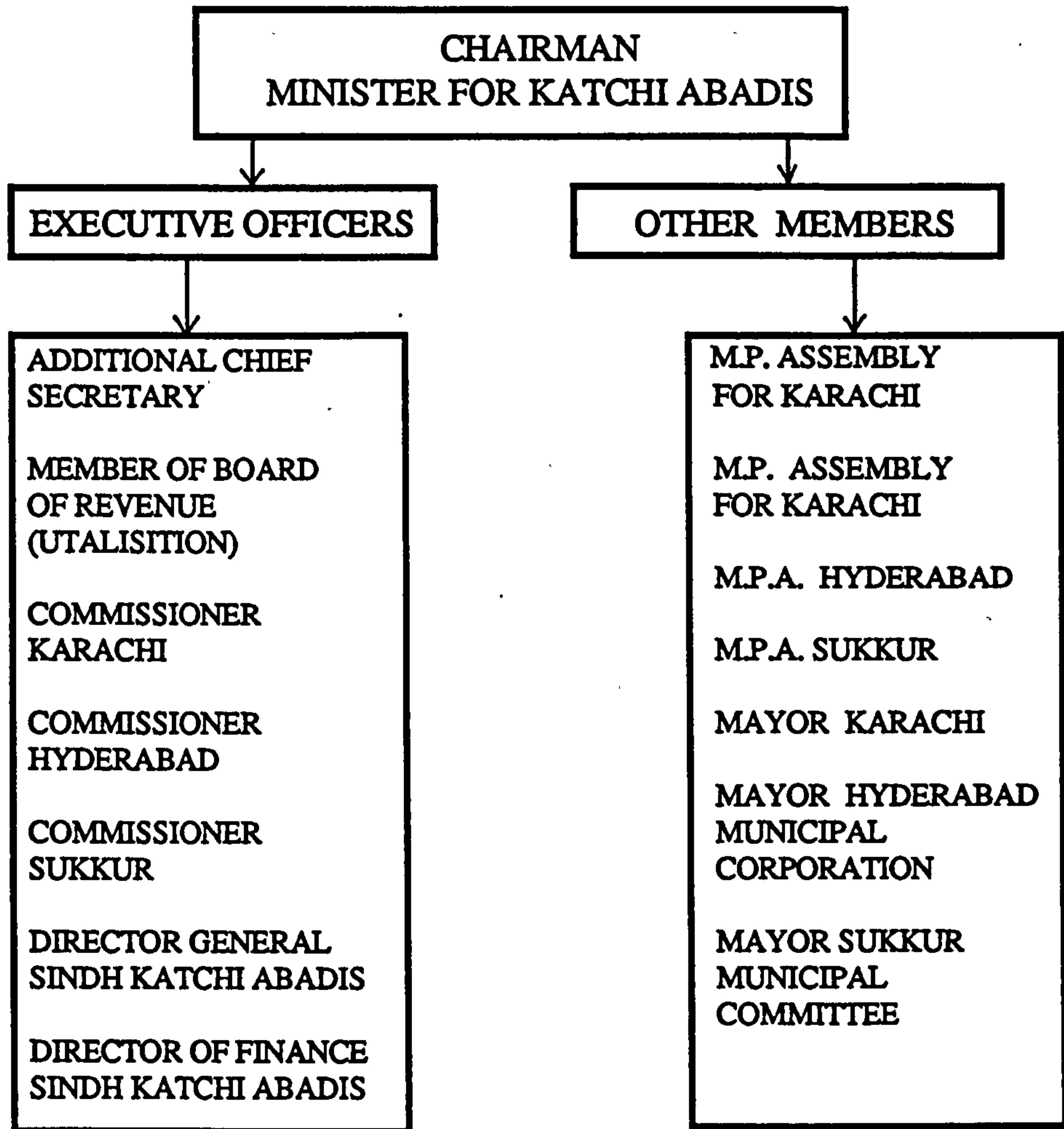
1. Planning, including policy and development.
2. Coordination of economic aid and technical assistance from International Agencies.
3. Coordination of foreign training programmes for officers working with Sindh Government.
4. Maintaining liaison with the National Agencies.
5. Conducting research, processing of all development schemes, programmes and proposals submitted by the other Departments and making recommendations to the Government thereon.
6. Evaluation of the progress of development schemes and writing their critical appraisal.
7. Initiating measures for giving suitable publicity to the Development Plan and educating the public on the results achieved from time to time.
8. Dealing with service matters of the Department except those entrusted to the Services and General Administration Department.

9. Coordination of statistics in general, and all matters relating to Bureau of Statistics.

Sindh Katchi Abadis Authority Government of Sindh.

5.018 Sindh Katchi Abadis Authority came into existence in December 1986 by an ordinance called Sindh Kachi Abadis Ordinance. Initially its office was set up in the Sindh Assembly Building with 63 posts for the executive and other staff. In April and May 1987, the Director General, Assistant Director (Engineering), Planning Officer and Accounts Officer were appointed on Deputation in the Authority and in June 1987, the Members of Provincial Assembly were nominated to the Governing Body. The Governing Body is headed by the Minister for the Katchi Abadis and has 7 Official and 7 Non-official members. The Official members include Additional Chief Secretary Local Government, Director General, the 3 Commissioners (Heads of Karachi, Hyderabad and Sukkur Divisions), Member (Land utilisation) Board of Revenue and the Director Finance of the Authority. The Non-Official members include the 3 Mayors and the 4 Members of Provincial Assembly. (See Figure 5.3) The Authority headed by the Director General has a Technical and a Management wing. The Technical wing is headed by the Deputy Director General and has Planning, Engineering and Monitoring Sections. The Management wing is headed by the Director and it has three sections: Administration, Finance and Coordination.

**Figure 5.3 COMPOSITION OF THE GOVERNING BODY,
SINDH KATCHI ABADIS AUTHORITY,
GOVERNMENT OF SINDH**



KEY TO ABBREVIATIONS

M.P.A. - MEMBER OF PROVINCIAL ASSEMBLY

Source : PREPARED BY THE AUTHOR, BASED ON THE SCRIPT.

Functions of Sindh Katchi Abadis Authority (SKAA).

5.019 The Sindh Katchi Abadis Authority has the following functions.

1. Implementation of the National Policy on Regularisation and Improvement of Katchi Abadis.
2. Identification of Katchi Abadis to be regularised, developed and improved and those which should not be considered in the process of policy implementation.
3. To conduct physio-socio-economic surveys in katchi abadis, preparation of plans based on surveys and their implementation (execution of plans) directly or through District Implementation Committee for regularisation, development and improvement of katchi abadis in the Province of Sindh.
4. To provide basic amenities and civic services in regularised katchi abadis through the Directorates or Committees with help of the concerned agencies.
5. To evict population from unauthorised abadis and to remove encroachments from a katchi abadi.
6. To undertake redevelopment schemes such as low-cost housing for re-settlement of shifted people from the katchi abadis or areas which are not to be regularised.
7. To operate allocated funds for the katchi abadis.
8. To promote training and research, to involve the communities and non-government organisations in the programmes for katchi abadis in the Province.

Directorates of Katchi Abadis and Regional Office.

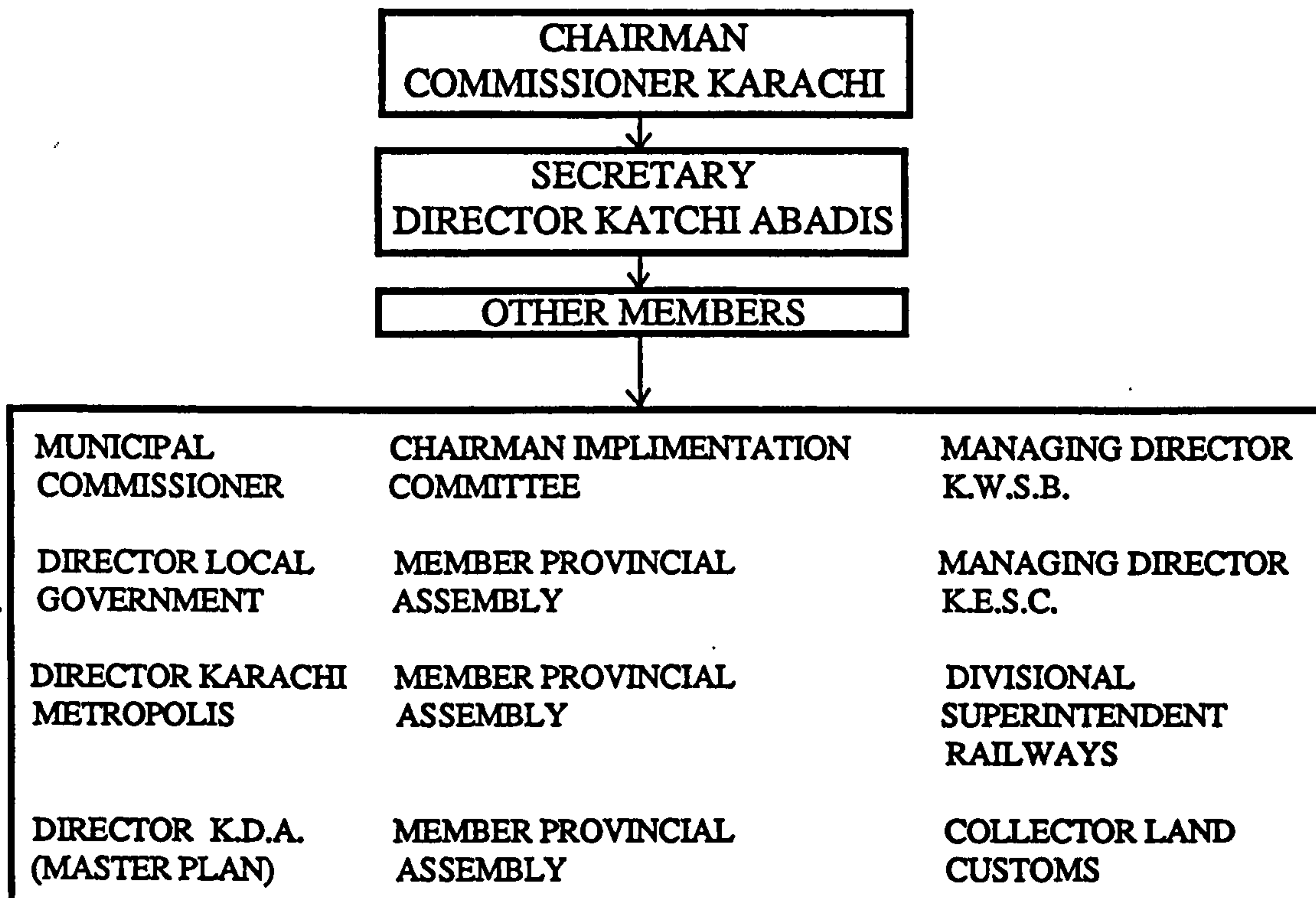
5.020 Presently, the Sindh Katchi Abadis Authority has a Head Office in Karachi, two Directorates (Field Offices) at Karachi and Hyderabad and one Regional Office at Sukkur. The Directorates at Karachi and Hyderabad are headed by the Directors, and the Regional Office at Sukkur by the Deputy Director. These three Sub-authorities have Katchi Abadis Coordination Committees. The Coordination Committee for each authority mainly involves Divisional Commissioner, Municipal Commissioner, Member of Provincial Assembly, Chairman District Council, Representatives of Other Service Agencies and Director Katchi Abadis of each Division. (See Figures 5.4, 5.5 and 5.6) In support of Sindh Katchi Abadis Authority, the Coordination Committees facilitate the process of planning and development, management of funds, monitoring and evaluation of schemes and the anti-encroachment efforts in the Cities of Karachi, Hyderabad and Sukkur.

Functions of Directorate of Katchi Abadis.

5.021 In a broad view of the activities of Sindh Katchi Abadis Authority, the Directorate of Katchi Abadis is responsible for planning and development of katchi abadis at Divisional level and it has the following functions.

1. To carry out physio-socio-economic surveys.

**Figure 5.4 COMPOSITION OF COORDINATION COMMITTEE,
THE DIRECTORATE KARACHI KATCHI ABADIS**



KEY TO ABBREVIATIONS USED:

K.W.S.B. - KARACHI WATER SUPPLY AND SEWERAGE BOARD.

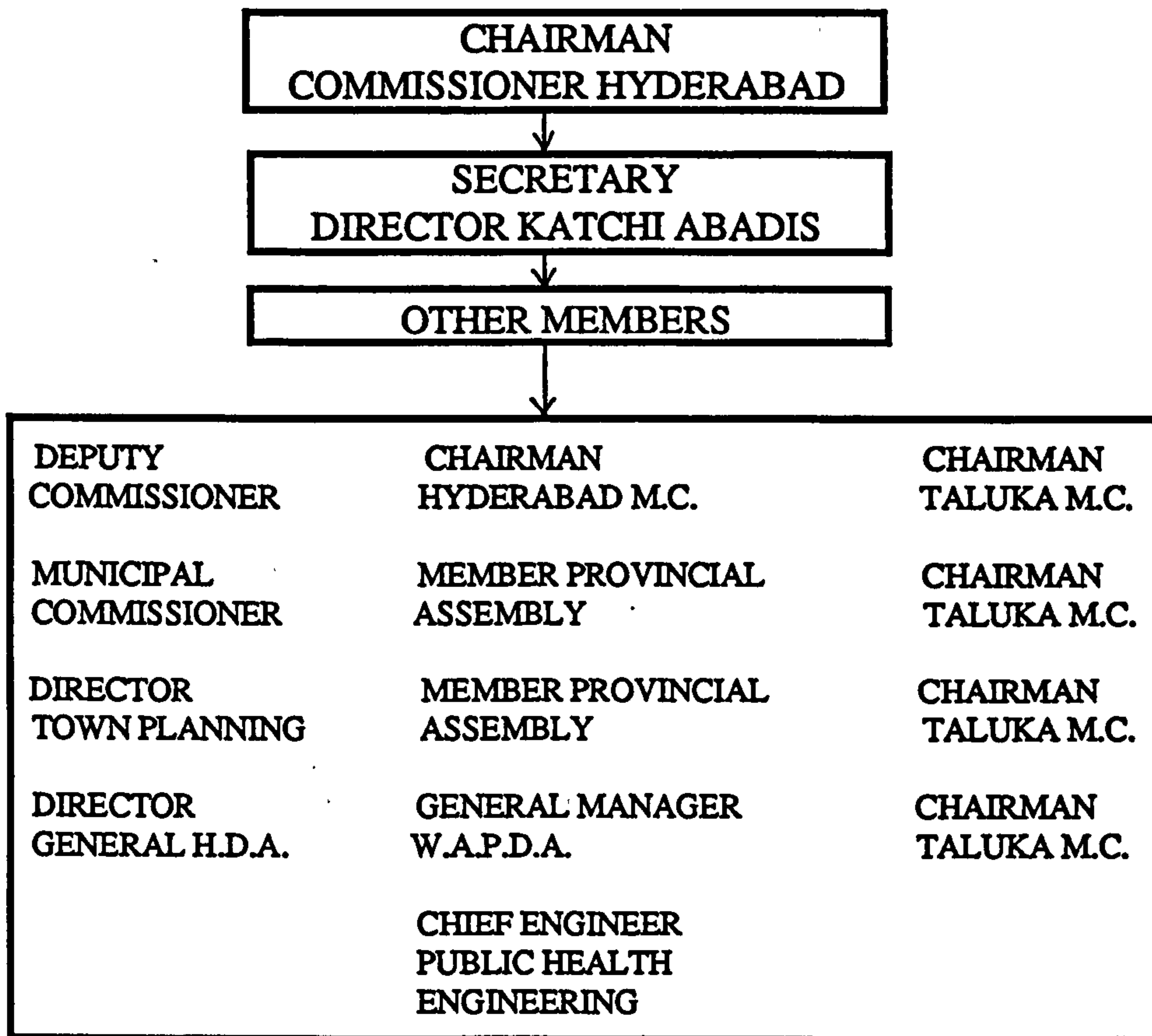
K.E.S.C. - KARACHI ELECTRICITY SUPPLY CORPORATION.

K.D.A. - KARACH DEVELOPMENT AUTHORITY

Source: PREPARED BY THE AUTHOR FROM DESCRIPTION IN S.K.A.A. (1988)

2. To prepare improvement plans, design engineering works, estimate cost and prepare tender documents for all works except electricity and gas (to be handled by Karachi Electricity Supply Corporation (KESC) and Karachi Gas Company KGC.
3. To prepare lease documents and forward these to the Land Department for issue of lease on receipt of money.
4. To invite bids and award construction contracts for roads, water supply, sewerage, drainage and other community facilities.
5. Supervision of the above construction works.
6. Liaison and coordination with other connected agencies for the upgrading programmes.
7. Actively to represent the Coordination Board of various City Agencies as well as the Local Coordination Committees which are responsible for the development at District level.
8. Day-to-day administration and other departmental accounting etc.
9. Organisation of community participation in schemes.

**Figure 5.5 COMPOSITION OF COORDINATION COMMITTEE,
DIRECTORATE HYDERABAD KATCHI ABADIS**

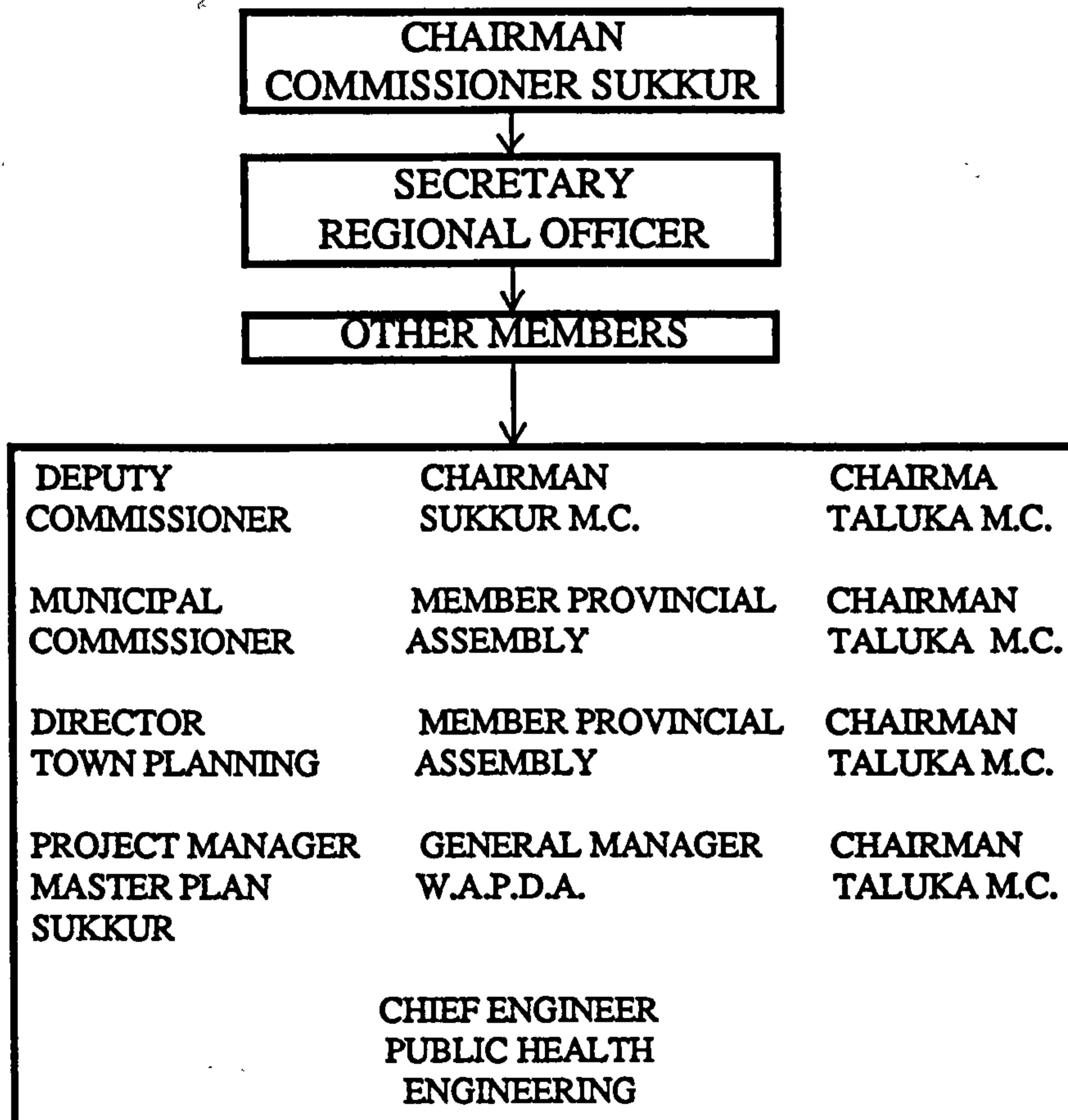


KEY TO ABBREVIATIONS

HYDERABAD M.C. - HYDERABAD MUNICIPAL CORPORATION
 TALUKA M.C. - TALUKA MUNICIPAL COMMITTEE
 W.A.P.D.A. - WATER AND POWER DEVELOPMENT AUTHORITY
 H.D.A. - HYDERABAD DEVELOPMENT AUTHORITY

Source: THE AUTHOR FROM TEXT IN S.K.A.A. (1988)

Figure 5.6 COMPOSITION OF COORDINATION COMMITTEE, REGIONAL OFFICE, SUKKUR KATCHI ABADIS.



KEY TO ABBREVIATIONS

SUKKUR M.C. - SUKKUR MUNICIPAL CORPORATION

W.A.P.D.A. - WATER AND POWER DEVELOPMENT AUTHORITY

TALUKA M.C. - TALUKA MUNICIPAL COMMITTEE

Source: PREPARED BY THE AUTHOR FROM THE TEXT: S.K.A.A. (1988)

Implementation Committees at District Level.

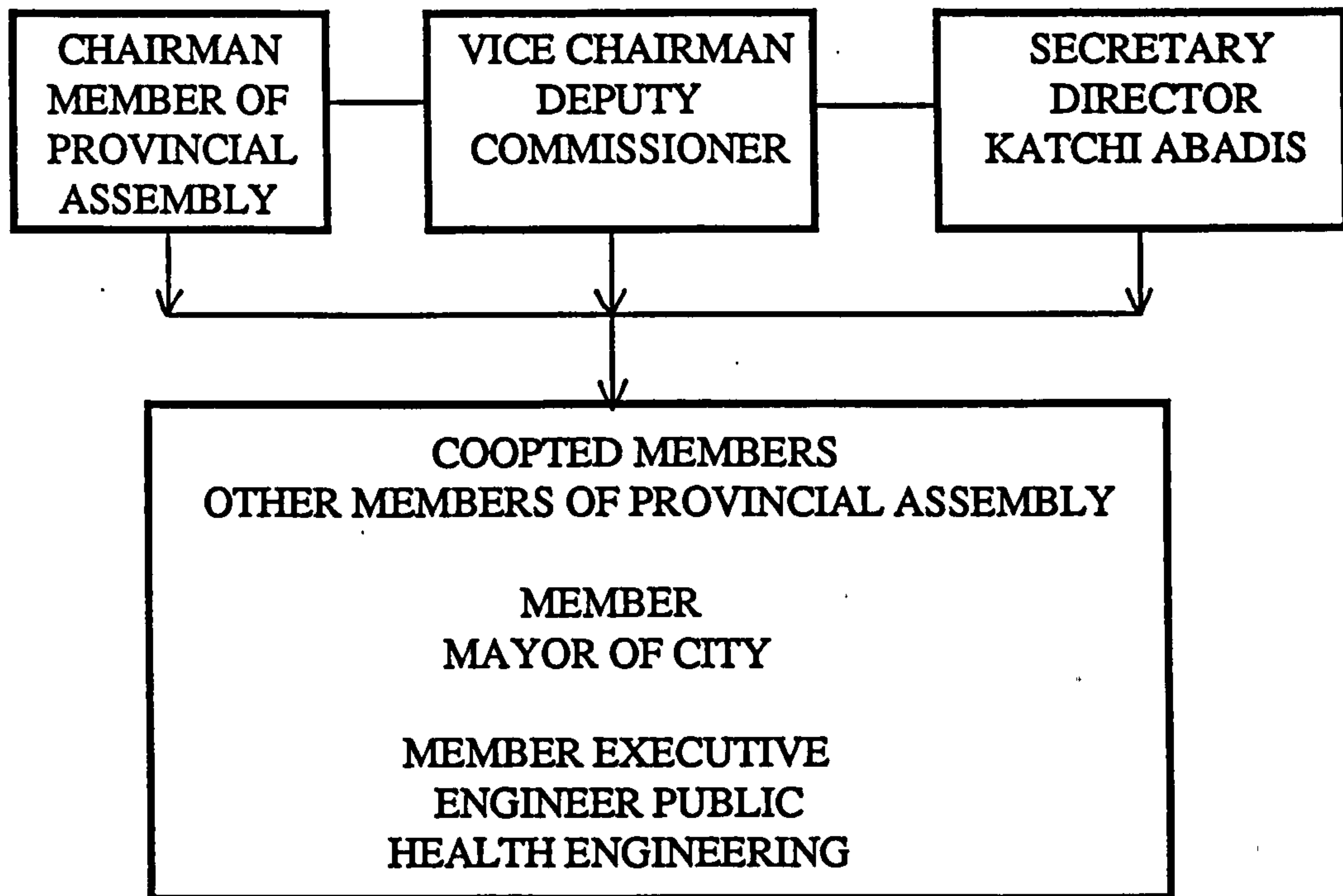
5.022 To relieve the Authority and Directorates of undue burdens and to help them in the execution of development schemes and regularisation of katchi abadis, Implementation Committees have also been set up under control of Member Provincial Assembly from a particular area in each District of Sindh province. The Structure of Implementation Committee at District Level is shown in figure 5.7.

Functions of District Implementation Committee.

5.023 The District Implementation Committees perform the following functions in order to assist the Directorates in execution of schemes in Katchi Abadis at district level.

- a) to assign projects to the selected contractors for approved Katchi Abadis schemes in the District.
- b) to ensure speedy and high-quality execution.
- c) to resolve constraints on implementation.
- d) to resolve any issues arising in the process of survey in katchi abadis.
- e) to control expenditure by ensuring the proper maintenance of funds allocated for katchi abadis at the Union Councils level.
- f) to issue the grant of Provisional Entitlement Certificate (PEC) and lease, recovery of charges for lease of land and area development.

Figure 5.7 STRUCTURE OF IMPLEMENTATION COMMITTEE AT DISTRICT LEVEL



Source: PREPARED BY THE AUTHOR FROM THE TEXT

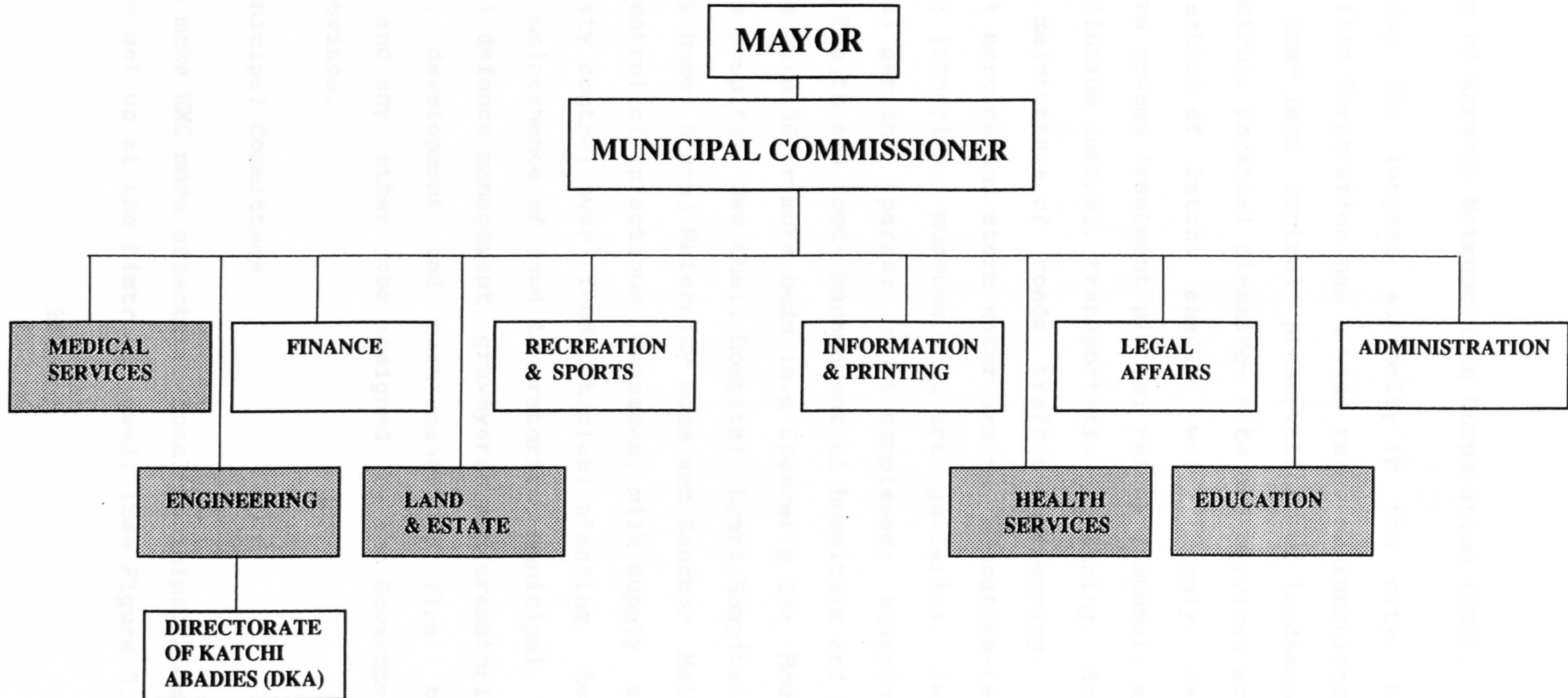
g) grant of concessions to the people of special categories e.g widows, orphans and disabled in accordance with the National and Provincial Policies.

Karachi Metropolitan Corporation.

5.024 The City of Karachi is governed and managed by various organisations. Amongst them the Karachi Metropolitan Corporation (KMC) is the biggest administrative authority in the city. In 1852, Karachi achieved the status of Municipal Commission, and of Municipality in 1853. At that time the Municipal Commissioner was in charge of the Municipality. The Karachi Municipality got its first elected President in 1910. The Karachi Municipality was upgraded to Municipal Corporation in 1933 and it acquired Metropolitan status in 1976. Since then the K M C is governed by an elected council with 234 members, headed by the Mayor and Deputy Mayor (who acts in absence of Mayor) who are elected from amongst council members. (See Figure 5.8)

5.025 The K M C functions within the framework of the Sindh Local Government Ordinance (SLGO) 1979. The Government of Sindh made an amendment in the SLGO of 1979 and it is called the Sindh Local Government (Fourth Amendment) Ordinance 1987. By virtue of this amendment, the KMC is decentralised. (See Zonal Municipal Committees)

Figure 5.8 ORGANISATIONAL STRUCTURE : KARACHI METROPOLITAN CORPORATION



1. ALL DEPARTMENTS DIVIDED INTO FUNCTIONAL UNITS THOUGH ONLY ONE (DKA) IS SHOWN
2. DKA COORDINATES WITH DEPARTMENTS SHOWN SHADED FOR REGULARIZATION AND UPGRADING

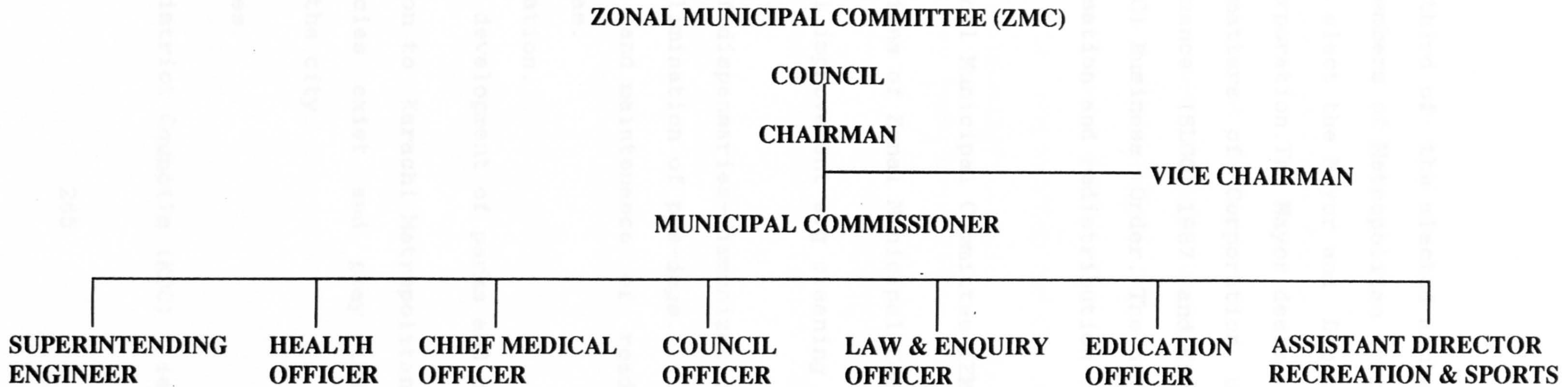
Functions of Karachi Metropolitan Corporation (KMC).

5.026 Being the largest authority in the city, Karachi Metropolitan Corporation has a wide range of functions such as land use-land control; preservation of landscape and flood control, physical planning-site and services schemes; regularisation of katchi abadis; water supply; sewerage system and sewage treatment plants; refuse disposal; air and water pollution control, transportation-planning, development and maintenance of roads; traffic engineering; public transport service and storm water drains, education-teachers training; libraries; museums and art galleries, leisure-zoological gardens; parks; sport complexes; aquarium and beaches, health and food-management of hospitals and maternity homes with 50 or more beds (e.g Spencer's Eye Hospital, Epidemics Hospital, New Chali Hospital, Lyari Hospital and Maternity Home, Sobraj Maternity Home and Ranchor Maternity Home); control of infectious diseases; milk supply schemes and quality control over food articles; planning, development and maintenance of food laboratories, municipal police and civil defence management, graveyards and crematorium, planning, development and maintenance of fire brigade services and any other jobs assigned by the Government of Sindh Province.

Zonal Municipal Committees.

5.027 To make KMC more effective, Zonal Municipal Committees (ZMC) are set up at the District level. (See Figure 5.9)

Figure 5.9 STRUCTURE OF ZONAL MUNICIPAL COMMITTEE



SOURCE: KARACHI METROPOLITAN CORPORATION 1987

Presently, one-third of the elected members of each Zonal Committee are members of Metropolitan Corporation. These 78 representatives elect the Mayor and Deputy Mayor of Karachi Metropolitan Corporation. The Mayor deals with administrative and financial matters of Corporation under Sindh Local Government Ordinance (SLGO) 1987 and Karachi Metropolitan Corporation (KMC) Business Order. The net strength of KMC after decentralisation and redistribution of staff in Z M Cs is 8.5 K.

Functions of Zonal Municipal Committee (ZMC).

5.028 The functions of Zonal Municipal Committee are as under

- a) environmental improvement e.g cleaning in local areas and refuse disposal.
- b) management of dispensaries- immunization, birth and death registration, elimination of pye-dogs.
- c) construction and maintenance of roads and streets in residential areas.
- d) primary education.
- e) planning and development of parks and playgrounds.

5.029 In addition to Karachi Metropolitan Corporation, the following agencies exist and play their role in the development of the city.

Municipal Agencies.

- (i) Karachi District Councils (KDC) (elected),

- (ii) Karachi Union Councils (KUC) (elected),
- (iii) Divisional Coordination Committee (non elected)

Special Ad hoc Agencies Under Provincial Government.

- (i) Karachi Development Authority (KDA)
- (ii) Karachi Water and Sewerage Board (KWSB)
- (iii) Karachi Electricity Supply Corporation (KESC)
- (iv) Karachi Gas Company (KGC)
- (v) Sindh Industrial and Trading Estate (SITE)
- (vi) Co-operative Housing Societies (CHSs)
- (vii) Sindh Highway Department (SHD)

Academic Institutions (Semi-Government).

- (i) Applied Economics Research Centre (AERC) University of Karachi.
- (ii) Nadirji Eduljee Dinshaw (NED) Engineering University of Karachi.
- (iii) National College of Engineering Karachi.

Other Agencies Under Federal Government Control.

- (i) Karachi Port Trust (KPT)
- (ii) Port Qasim Authority (PQA)
- (iii) Airport Development Agency (ADA)
- (iv) Central Development Authority (CDA)
- (v) Pakistan Steel Mill Corporation (PSC)
- (vi) Cantonment Boards e.g Clifton, Drigh, Korangi Creek, Malir and Manora.

Existing Management System.

5.030 The structure and functions of various agencies that are involved in the process of preparing the Annual Development Plans (in view of the national policies) and implementation of these plans for solving the problems of katchi abadis in Pakistan, Sindh Province and particularly in Karachi Metropolis are explained in the preceding sections of this chapter. The preceding section also has highlighted the names of academic institutions, Federal Agencies and special ad hoc agencies that exist and are involved in the process of development in Karachi. This section will deal with the functions and relationships of all the planning organisations, other agencies, particularly the Sindh Katchi Abadis Authority regarding the preparation, approval of development plans, allocation of funds and implementation of these plans in the Sindh Province and Karachi metropolis.

5.031 As mentioned earlier that in accordance with the President's policy statement, the Katchi Abadis Authority, with its head office in Karachi (Sindh) and in the capital cities of other provinces, was established to resolve the problems of these settlements in all the provinces of the country (for details refer to Chapter 4). The Sindh Katchi Abadis Authority has been comparatively recently established (1986) for solving the problems of katchi abadis in the province, and metropolitan area in particular. Hence it is

assumed that this organisation must be well equipped (staff and other resources) in order to conduct surveys in the katchi abadis, to analyse the data gathered from the surveys for preparing development plans. It is considered to have full authority in the preparation, approval and the implementation of the development plans in order to solve the problems of katchi abadis at provincial and metropolitan level.

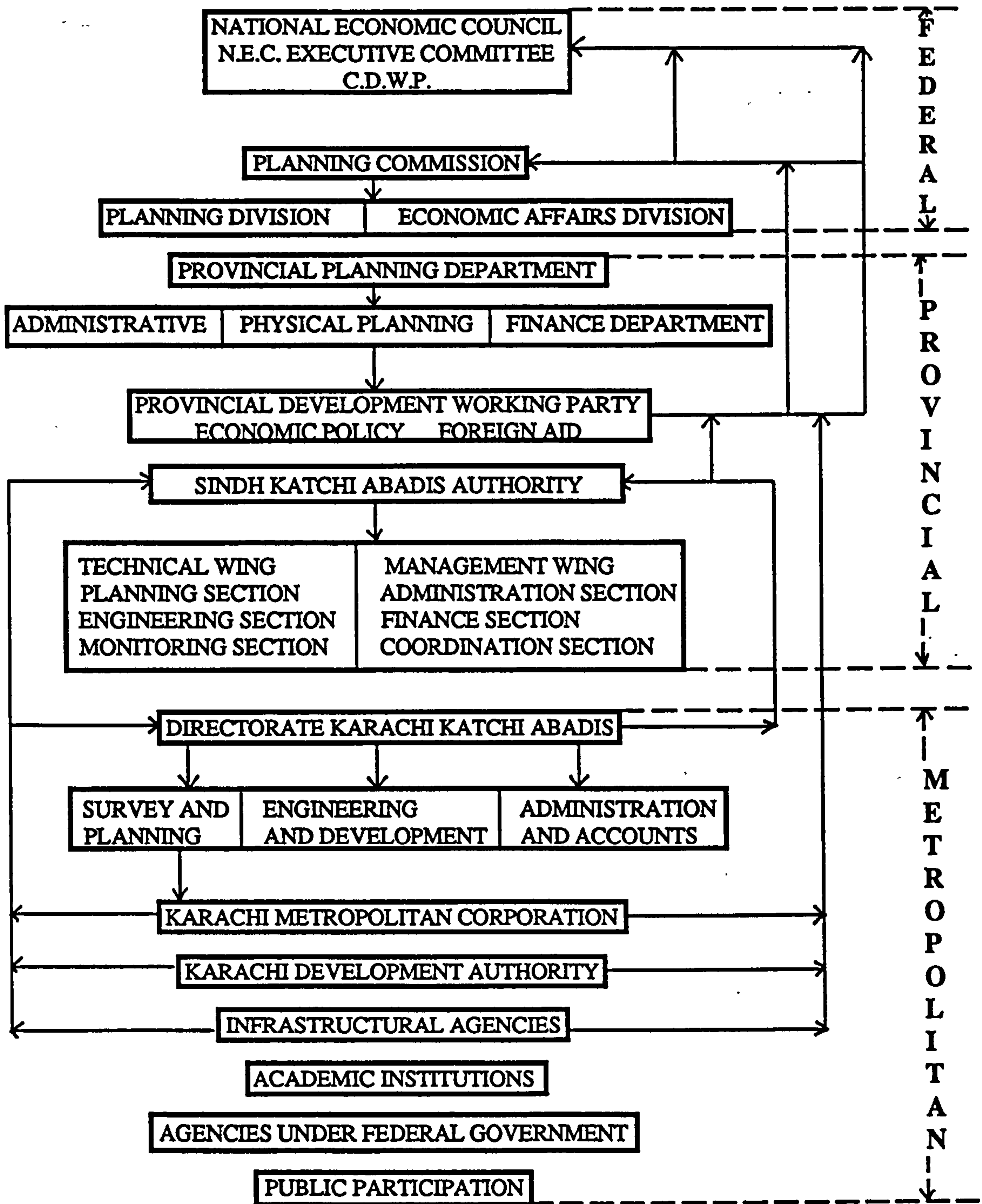
5.032 In order to identify the key problems which occur in the implementation of policies, and their impact on the development in Karachi the author evaluates the functions and relationships of Sindh Katchi Abadis Authority and its Directorate for Karachi katchi abadis with national and provincial planning departments, other institutions and agencies that exist, so as to solve the problems in Karachi in particular. The organisational structure, functions and relationships of Sindh Katchi Abadis Authority and its Directorate are shown in Figure 5.10.

5.033 Figure 5.10, referring to existing management system, depicts the following:

- 1) the process of inter-agency and intra-department actions;
- 2) the particular relationship between various departments (where such exists) and its impact on the development in the metropolitan area;

Figure 5.10

RELATIONSHIP OF SINDH KATCHI ABADIS AUTHORITY WITH OTHER ORGANISATIONS AT NATIONAL, PROVINCIAL AND METROPOLITAN LEVEL



3) the impact of lacking inter-relationship between various departments on the development.

4) It constitutes a 'model of management' for implementation of present policies and plans for planning and development of human settlements in the country, particularly in Karachi metropolis. The first half of the model presents the system that is working in all provinces because of similar pattern at provincial level in the country; whereas the second half of the existing model demonstrates the process of preparing plans and their implementation in metropolitan Karachi because metropolitan authorities are heavily involved in the process.

5.034 The existing management system involves different agencies and shows relationships of various types which require further explanation in order to achieve the above goals. It is necessary to mention here that before the establishment of Sindh Katchi Abadis Authority- a permanent authority, the Planning and Development Department of Government of Sindh, KDA, KMC and other infrastructural agencies were severally responsible for the development in the metropolitan area. The KMC being largest organisation in the city has always been responsible for maintenance of the completed projects in the metropolitan area.

5.035 There is a direct relationship between the CDWP and PDWP. All plans and proposals are submitted to PDWP by

different departments. After the necessary assessment has been done, the PDWP forwards these plans through the Planning Commission to CDWP. Once plans are approved, the CDWP releases funds through the Provincial Development Working Party (PDWP) i.e Planning and Development Department to the authorities concerned with the execution of development projects.

5.036 The Provincial Development Working Party (i.e Foreign Aid section) is directly linked with the Planning Commission (i.e Economic Affairs Division) regarding the projects that require International Economic Aid or Technical Assistance. The other Provincial and metropolitan departments including Sindh Katchi Abadis Authority have to submit projects of this nature to PDWP, so that their proposals may be included in the Annual Development Programmes. This shows a lack of power with the Sindh Katchi Abadis Authority to approve, sanction and implement the development programmes even on a small scale, within the metropolitan area. This model also confirms the absence of regular relationship between the Provincial Katchi Abadis Authority and Central Development Working Party.

5.037 There is a multiple relationship between the Directorate of Karachi Katchi Abadis (Administration and Accounts Unit), Sindh Katchi Abadis Authority (Administration and Finance Section), Provincial Development Working Party and the Central Development Working Party.

The Directorate Karachi Katchi Abadis submits a list of its projects to Sindh Katchi Abadis Authority (Head Office). The head office also receives a long list of new projects from its Directorate for Hyderabad Katchi Abadis and Regional office at Sukkur; where upon the Governing Body (refer to Figure 5.3) selects and sends the most important projects to the Provincial Development Working Party. Thereafter the remaining procedure is completed as described in item 1 above. This shows how a project that has to be approved and implemented at the metropolitan level passes through four stages- viz. head office-PDWP-Planning Commission-and-CDWP. During this lengthy process of scrutiny, some of the projects are dropped either totally or partially from the list of projects submitted by the Directorates to the Head office and it similarly as they pass onwards to the CDWP, thus having an effect on the development of affected areas.

5.038 The available information confirms non-representation of Sindh Katchi Abadis at either Planning Commission or National Economic Executive Council (the final decisive authority). Hence it is assumed that important projects might be dropped from the list and the affected areas are left to suffer for at least one more year till the Local Authority includes them in the list of development projects for the next year. This confirms the lack of execution of original plans and non-representation of Sindh Katchi Abadis Authority at national level.

5.039 There is a multiple relationship between the Directorate of Karachi Katchi Abadis (Survey and Planning Unit), Karachi Development Authority and the Applied Economic Research Centre. The Applied Economic Research Centre plays a very important role in analysis and evaluation of data gathered from socio-economic surveys in katchi abadis of the Sindh Province. The Centre also helps in analysis and evaluation of research done by the KMC, Agricultural Development Bank, Pakistan Agricultural Research Council, Planning Commission (i.e Planning Division Islamabad), Planning and Development Department, Governments of Sindh and Baluchistan, the World Bank and Free University of Netherlands.

5.040 The Directorate of Karachi Katchi Abadis and Karachi Development Authority are lacking the facilities for analysis and evaluation of data gathered from socio-economic surveys, hence the Applied Economic Research Centre helps them too. This shows that the facilities provided within the Centre are utilized by local, national and international agencies. The Centre's engagement in various projects causes delay in obtaining results of analysis of data gathered by the Directorate and Development Authority, and hinders the realisation of any solution to the problems of katchi abadis in metropolitan Karachi. This confirms the lack of technical equipment and trained staff in the Head Office and in the Directorate of Karachi Katchi Abadis, and dependence on other agencies for the analysis and evaluation of data.

5.041 Due to establishment of the Sindh Katchi Abadis Authority (Provincial permanent organisation), and its Directorates and Regional office at Karachi, Hyderabad and Sukkur, these divisional organisations are supposed to have trained staff and all other technical facilities that are required to help the solution of the problems of katchi abadis at Provincial, and Metropolitan level. But the model shows that the Directorate at Karachi is dependent on the Karachi Development Authority for the acquisition of land and its development, and on the Metropolitan Corporation for analysis of surveys for regularisation and improvement of katchi abadis. Besides the Directorate, the Karachi Corporation also tackles the problems of katchi abadis in the metropolitan area.

5.042 In fact the research cell established in the office of the Metropolitan Corporation is supposed to conduct surveys and analyse them in order to help the Directorate in the process of regularisation and improvement of Katchi Abadis in Karachi. But due to being the largest organisation in the city and having a wide range of functions, the staff and facilities available in Corporation mostly are utilized to serve its own clients. The Corporation also collects revenue from the residents of katchi abadis. Hence people visit both officies- the Directorate and Corporation, and have great difficulty in obtaining accurate information about development projects. The staff does not want to provide

correct information to the slum dwellers. Sometimes the poor have to wait for hours in order to meet the officers for five to ten minutes. The officers do not listen carefully to the poor, but turn them away saying "we are doing our jobs, do not waste time (ours as well as yours), you can go and see that office (another)." This shows a lack of coordination between two organisations, inefficiency of the officers to provide correct information and guide the poor people.

5.043 Last but not least, the interrelationship that has a great impact on the whole process is the dependence of Sindh Katchi Abadis Authority and Directorate of Karachi Katchi Abadis on the Development Authority, the agencies who are responsible for development of infrastructure, and on the Metropolitan Corporation. For example, if the Directorate wishes to implement a development project in katchi abadis it prepares plans and submits them to the Provincial Katchi Abadis Authority. The Authority come in contact, firstly with the Karachi Development Authority for acquisition, development of land and construction of houses, thereafter with the Water and Sewerage Board, Electricity Supply Corporation and, finally, with the Gas Supply Company for the development of the necessary infrastructure for servicing consumers in the metropolitan area.

5.044 The implementation of those projects that are managed by the Directorate of Karachi Katchi Abadis has also practical implications for Metropolitan Corporation. The

Directorate has to request the Metropolitan Corporation to provide primary education and health services in the areas proposed for development. In this way the concerned agencies include these projects in their annual development plans and submit them to the Planning and Development Department, Government of Sindh (Provincial Development Working Party). The remaining procedure is completed as described in item 3 above. It is assumed here that due to the projects dropped totally or partially as explained in item 3, the concerned agencies do not receive funds from the Central Development Working Party for the execution of that project, and are unable to coordinate with the Sindh Katchi Abadis Authority. Hence, the Directorate fails to execute the proposed projects for development in katchi abadis or slums in metropolitan area.

5.045 Finally, our examination of the existing management system confirms the absence of any formal relationship between the PDWP, Katchi Abadis Authority, the educational institutions, Federal agencies and the residents.

Conclusion.

5.046 A critical assessment of the present system of execution of policies and plans for development in Katchi abadis at national, provincial and metropolitan level shows that all departments are dependent on each other; especially Sindh Katchi Abadis Authority and Directorate of Karachi

Katchi Abadis rely on other agencies. Their interdependence implies a lengthening of the process, delay in preparing, approval and sanction of plans, a certain lack of coordination, and slow disbursement of funds for the execution of projects in the katchi abadis in Karachi.

5.047 From the above information the author has learned that problems occur at almost every stage of the process, because of:

1. Lack of power with the Sindh Katchi Abadis Authority.
2. Absence of a formal relationship between the Authority and the Central Development Working Party or simply due to non-representation of the Provincial Authority at Planning Commission and National Economic Council.
3. Lack of technical equipment and trained staff within the Provincial Authority and Directorate of Katchi Abadis.
4. Interdependence of Sindh Katchi Abadis Authority and its Directorate on Applied Economic Research Centre, Development Authority, Metropolitan Corporation and mainly on ad hoc or infrastructural agencies in Karachi.
5. Lack of coordination between the Authority and existing departments and agencies at metropolitan level.
6. Lack of formal relationship between the Provincial Katchi Abadis Authority and Educational institutions and Federal agencies working in metropolitan Karachi.
7. Lack of a friendly relationship between the Authority and other organisations and the residents of katchi abadis.

CHAPTER SIX. EMPIRICAL RESEARCH: FINDINGS OF DATA GATHERED FROM TWO KATCHI ABADIS OF METROPOLITAN KARACHI.

Introduction.

6.001 This Chapter presents an analytical assessment of the physical, social and economic characteristics of two areas- 1 (Lyari) and 2 (Korangi)- in Karachi. The statistical analyses of the findings are shown in tables and figures. The relevant terms are described in order to explain the dependent and independent variables used in the statistics. The analysis aims to explore the present physio-socio-economic conditions of the poor living in the affected areas, and to compare these in order to reveal any problems which may be distinctive in either area.

6.002 The findings for both Area 1 and Area 2 are presented under the same headings, and the terms used are described in a similar manner. This will help in the diagnosis of findings and in highlighting the peculiar problems of each area.

The following Chapter 7 will present a comparative view of physio-socio-economic characteristics of the respective areas. This will also high-light the significant problems in each area and priorities of the poor for future improvement.

6.003 In order to identify and explore the physio-socio-economic characteristics, Lyari and Korangi two katchi abadis in Karachi were visited by the author where a detailed socio-economic survey was conducted. The visit

aimed to obtain comprehensive information about katchi abadis as a principal problem in Karachi Metropolis; and policies and schemes adopted by the government of Pakistan and implemented by the metropolitan authorities in order to reduce the density of the problem. It was presumed that the Fieldwork shall comprise two phases (refer to Figure 1.2). In Phase 1, the facts and figures to be collected on the ground with the help of respondents, by filling-in a pre-designed open-ended questionnaire. In Phase 2, the officials will be interviewed, and published and unpublished materials will be collected for information about policies and programmes being executed in Karachi. To achieve the objectives mentioned above, the following methodological approach was adopted. (For details refer to Fig 1.2)

General Approach.

6.004 Mehran University of Engineering and Technology Jamshoro was notified of author's arrival in Hyderabad Pakistan, and appointments were made with the Vice Chancellor, Dean of the Faculty of Engineering, Dean of the Faculty of Architecture and Town Planning, and some senior members of teaching staff of the University. In these meetings, the purpose of visit to Pakistan, the research topic, the objectives of study, review of the literature, information gathered during the first year of study at Centre for Planning and proposed case study areas- Metroville 1 and Korangi were discussed in detail.

6.005 Because Hyderabad city is 100 km away from Karachi, it was difficult for author to travel to Karachi frequently. Hence suitable accommodation was arranged in Aynabad Colony at Karachi to carry out Surveys and collect additional relevant information. In the initial period various information centres and bookshops were visited for guide maps, census, reports, and other publications about the city in general and about case study areas in particular. The officials responsible for various projects carried out by the different organisations were visited. Some of the key points already discussed with Mehran University authorities were discussed again to understand and clarify objectives of the study and case study areas. These discussions helped the author in selection of two katchi abadis in Karachi.

Area Selection.

6.006 From general information gathered in Karachi and discussions on research topic, objectives of study and proposed case study areas of Karachi, it was clear that Metroville 1 was a development project as an attempt to solve planning problems in Karachi Metropolis. Though it is a failure, this project is not for a katchi abadi of the city; whereas Korangi was confirmed as a failed project turned into a katchi abadi in the city. Hence on the basis of the review of literature and fresh information, the author decided to select Lyari as an old katchi abadi

(instead of Metroville 1) and Korangi as a new or younger katchi abadi.

6.007 With the help of guide maps and subdivisional maps, selected areas were personally examined. During general examination of study areas, the boundaries of subareas were marked on maps. Provision of basic services, roads and pavements, transport, shopping centres, hotels and restaurants, hospitals and clinics, Mosques and churches, community and social halls, local welfare organisations and views of inhabitants were recorded in a fieldbook. From the views of inhabitants it appeared that the personalities engaged for development by the government felt no responsibility, and took little interest in the improvement of physical development of areas. People believed in the self-help concept and were dependent on welfare organisations. Therefore, the contact with local welfare organisations was necessary for primary data collection.

Sampling Method.

6.008 Social balance or, in sociological terms, social integration as an aim in planning requires that attention be given to the characteristics of the population involved. Social balance may be defined arbitrarily as the presence of the different socio-economic groups within the territorial limits of a larger social unit, such as a town or a city. More specifically with regard to land use, there must be

provision for necessary housing and facilities for these varying groups, whether, economic, racial, ethnic or otherwise. (Allen, Judith A. 1971)

6.009 For the purpose of sample design, a cluster sampling from each of the two selected katchi abadis of Karachi Metropolis was collected. To collect more accurate data, a form of multistage sampling known as area sampling method was applied. With help of the maps (see figure 6.1 and 6.14) on the basis of major roads, streets and lanes both large areas were divided into sub-areas. In Lyari there were 42 subareas whereas; in Korangi the number of subareas was 18. For the purpose of a comparative study a sample of 8 subareas was selected from each large area. For primary data a Stratified Sampling Technique was applied, and a sample of 10 households from each subarea was selected in order to represent the whole population living in each subarea. As both Lyari and Korangi are located in east and south of the city respectively. Due to high cost of transportation, limited time and filling in the questionnaires by the author himself about 80 households of different ethnic groups and social status from 8 subareas in each case study area was selected at whom the questionnaire was directed.

Household and Head of Household.

6.010 According to Bureau of Statistics (1986) a household is defined to be "consistituted of all those persons who usually live together and share meals. A household may

consist of one person or more than one persons who may or may not be related to one another." Hence for the purpose of this study a household that consisted of a group of people who live and eat together, and share facilities in the premises of a house was selected. In the case of shared households the heads of owner or tenant households whoever were available at the time of visit were interviewed.

Objective and Method of Completing Questionnaire.

6.011 For gathering detailed information for statistical analysis, contributing a wide range of knowledge relating to the existence of the two types of katchi abadis, knowing the willingness of the residents to have healthier and better environments and formulating policies for improvement of environment in metropolitan area, particularly in visited areas a predesigned questionnaire was completed during the interviews. A questionnaire containing 38 questions about the type of house they lived in, distribution of population, family size, basic needs of the house, infrastructure, tenure, place of origin, process of migration and settlement, education and health services, occupation profile, place of work, mode of journey, and economic conditions of residents was filled in personally by the researcher (see Appendix 3). The purpose of filling in questionnaires by the author himself was to avoid misunderstanding of terms used in the questionnaire, loss of any questionnaires and delay in completion of fieldwork.

Additional Information and Sources.

6.012 Fresh literature, research reports and surveys, and other information necessary for studies was collected from Library and information centre, KDA; Municipal library, KMC; Library, AERC Karachi University; Information and Tourism centre, PIA Karachi; Pioneer Bookshop; and Aerow Stores Karachi.

Lyari - an old katchi abadi or classic slum area in Karachi.

History and Growth of Area.

6.013 Lyari, an old part of Metropolitan Karachi, with an area of 177 ha (or 1.77 sq km) is located in the south-west of the city. (see Figure 6.1) It is a densely populated inner city district with a population of over 700 K. The density of population is clear from 177 houses (having from one to five bedrooms) per ha, with an average family size of 9 persons per household. In Lyari, most of the houses (71% of the sample houses of all types) have one bedroom, and a reasonable number of houses have other basic services such as kitchen, bath, and W.C (see table 6.3). An average size of plots in Lyari was recorded as 27 sq m. Being an old part of Karachi, the current residents are living there since their forefathers. With regard to occupancy status, like other katchi abadis of Karachi, the residents of Lyari also have status of different types (see Table 6.10); more than 70% of the residents in Lyari are "permanent". (see analysis

Figure 6.1 PLAN OF LYARI KATCHI ABADIS SHOWING SUB-AREAS



of author's collected data in Table 6.11) According to AERC (1988) "54% of the households had moved there before 1955." The above statistics indicate that the old settlement is not only long established in the city, but also has been able to develop a strong political relationship with the political parties in the country. Lyari plays an important role in election campaigns. During an election campaign as elsewhere, the politicians come there, make promises to the residents about the development of this area, and get political support from them.

6.014 In 1971, Bhutto's Pakistan Peoples' Party (PPP) won the General Elections, and since then this party has secured a political seat in Lyari. During the 1988 Elections Benazir Bhutto herself contested the Election from this area and won the seat. On these political grounds, Lyari was chosen for the first slum upgrading programme under Joint Research Slum Improvement Project (JRP). While the Pakistan Peoples' Party was in power (1971-1977), some development projects (e.g electricity, water supply and drainage) were carried out in this area (see Tables 6.4-6.7). Lyari General Hospital was also constructed at the time of the Bhutto Government.

6.015 At present many different communities live there. The Baluch, the most significant community, has been there for many generations. The Baluch community claims to have participated in the original development of Lyari. In Lyari there are people of diverse social classes and of diverse

economic groups. The housing structures vary from Juggi type to Concrete type. Lyari is considered to be an old katchi abadi of the city, having a variety of types of problems: physical, social and economic. The following tables show a statistical analysis of the existing problems in Area 1.

Assessment of Physio-Socio-Economic Characteristics.

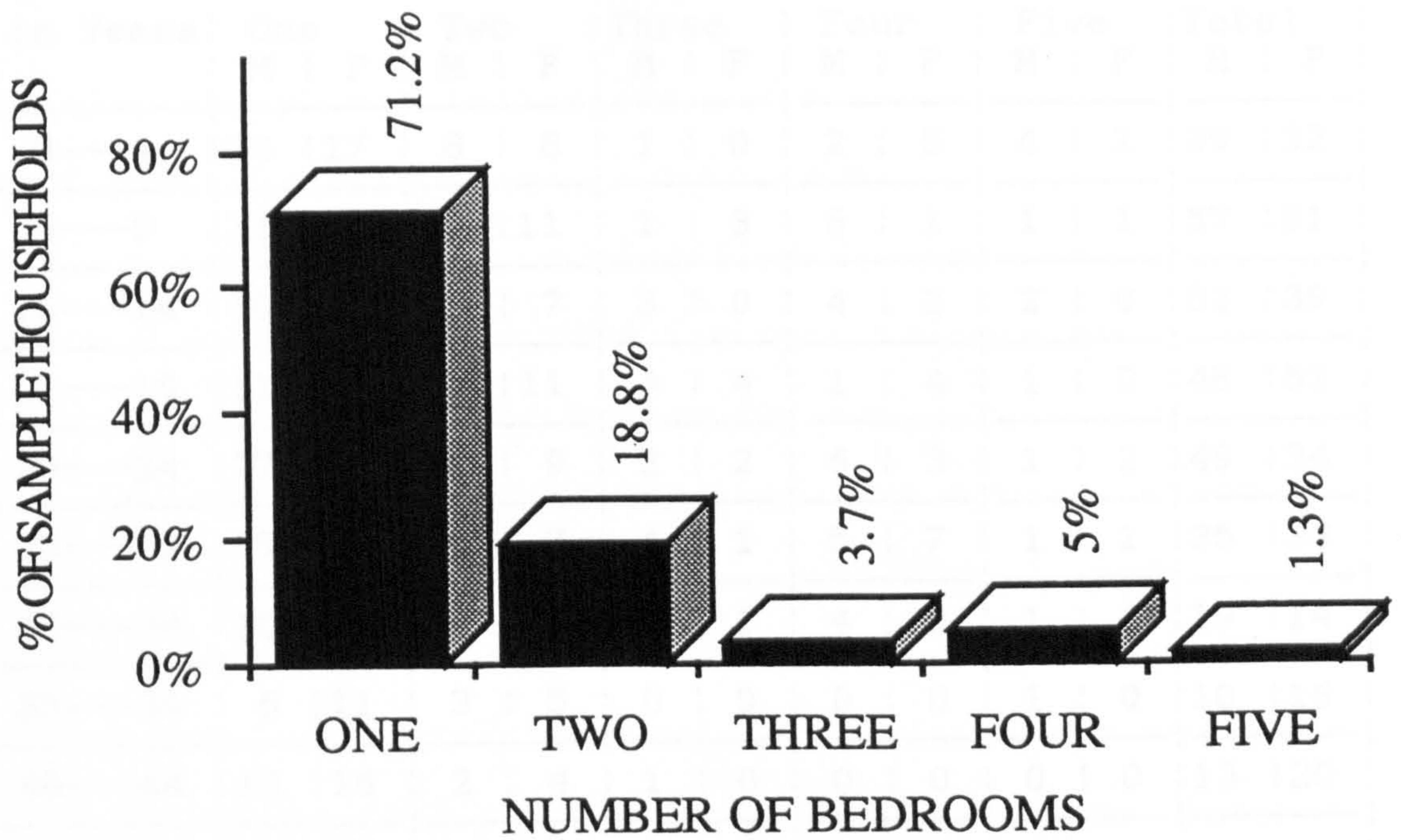
Physical Characteristics of Area 1 (Lyari).

Table 6.1 House Types by Number of Bedrooms in Each.

House Types	Number Of Bedrooms					Total
	One	Two	Three	Four	Five	
Juggi	2	-	-	-	-	2
Katcha	24	7	-	1	1	33
Semi Pucca	18	5	1	1	-	25
Pucca	12	2	2	2	-	18
Concrete	1	1	-	-	-	2
Total	57	15	3	4	1	80
(%)	(71.2)	(18.8)	(3.7)	(5.0)	(1.3)	(100)

6.016 Table 6.1 shows the number of houses for each type for interviewed households in Lyari. This shows that a high number (24) of houses belong to katcha type. This Table and Figure 6.2 show that out of 80 houses, 57 or 71.2% houses of all types have one bedroom, 18.8% of selected houses have two bedrooms, and only 10% of sample houses have three or more bedrooms. Out of the 10% only one house (1.3%) has five bedrooms. From above statistics it is clear that the modal size of house is one bedroom, which is quite insufficient

Figure 6.2 DISTRIBUTION OF SAMPLE HOUSEHOLDS BY NUMBER OF BEDROOMS. AREA 1, LYARI, KARACHI



for a family usually consisting of at least four persons. Most of the families having more than 8 members are living in one-roomed houses (see table 6.2)

Table 6.2 Age, Sex Composition of the Sample Population Living in Households by Number of Bedrooms in Lyari.

Age in Years	Persons Living in Dwellings by Number of Bedrooms and Sex.											
	One		Two		Three		Four		Five		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
0---4	24	17	8	8	1	0	2	5	4	2	39	32
5---9	36	35	13	11	1	3	6	1	1	1	57	51
10---14	40	30	13	7	3	0	4	2	2	0	62	39
15---19	31	34	12	11	3	4	1	4	1	0	48	53
20---24	27	18	13	9	2	2	6	3	1	2	49	34
25---29	19	17	6	7	4	1	5	7	1	1	35	33
30---34	10	10	4	1	0	1	4	2	1	0	19	14
35---39	6	11	3	5	0	0	0	0	1	0	10	16
40---44	10	16	2	4	1	0	0	0	0	0	13	20
45---49	11	5	6	3	0	1	0	1	0	0	17	10
50---54	10	7	4	1	0	1	1	2	0	1	15	12
55---59	4	8	1	1	1	0	2	0	1	0	9	9
60--- +	15	5	2	1	0	0	1	0	0	1	18	7
T o t a l (M + F)	243	213	87	69	16	13	32	27	13	8	391	330
	(456)		(156)		(29)		(59)		(21)		(721)	

6.017 From Table 6.2, we know that 721 persons of both sexes for the age between 0 and 60 + years are living in sample households having one to five bedrooms. This table also shows the number of persons living in each household having

a particular number of bedrooms, age distribution of sample population, total number of sample population for both sexes in each age group and number of persons for individual sex living in sample households having particular number of bedrooms. With the help of statistics presented in this table the author has calculated that the average family size for all houses in Lyari is 9.0 persons per household.

6.018 The analytical statistics further confirm that, of the sample population a large number (456) is living in one bedroomed dwellings and a significant number (156) in two bedroomed dwellings. Now with the help of data about number of bedrooms in all sample houses for each type presented in Table 6.1, the author has calculated that a high proportion (84%) of the sample population is living in one or two bedroomed dwellings. The average number of persons in each dwelling is 8.0 (one bedroom), 10.4 (two bedroom), 9.6 (three bedroom), 14.8 (four bedroom) and 21 (five bedroom). The number of persons per bedroom for each dwelling is 8.0 (one bedroom), 5.2 (two bedroom), 3.2 (three bedroom), 3.6 (four bedroom) and 4.2 (five bedroom). The above data shows that a majority of the population in Lyari is living in one-bedroomed dwellings. It is logical that a large number of persons living in one room makes it suffocatingly hot, puts pressure on service utilities and facilities, and causes congestion and unhygienic conditions which induce disease. Hence the problems of excessive density and overcrowding in Lyari are significant.

Table 6.3 Households Having Various Facilities.

House Types	Number of Houses Having Facilities						
	W C	Kitchen	Bath	Open	Others	Store	Living
Juggi	-	-	1	-	-	-	-
Katcha	21	9	12	5	2	-	-
Semi pucca	12	13	14	-	1	-	1
Pucca	14	11	4	4	-	2	-
Concrete	1	2	1	-	-	-	-
Total (%)	48 (60)	35 (44)	32 (40)	9 (11)	3 (3.8)	2 (2.5)	1 (1.3)

6.019 Table 6.3 describes horizontally the number of houses for each type having an individual facility in it, whereas vertically it gives the total number of houses for all types having that particular facility. This table indicates that more than 97% of houses do not have a place for storing necessary housewares and 56% do not have a kitchen facility within the house. The householders place their things either in a bedroom or use the kitchen (those who have this facility) as a store. The table further shows that 60% of houses have no bathroom and 32 (40%) houses have no water closet. Of the residents having no bathroom in the house, males go to a salon to have a bath and the females arrange a temporary bathroom in the corner of the bedroom.

6.020 The residents of Lyari either use KMC toilets, where the person in charge of the lavatory collects money from the

users or the poor people use open spaces, the bed of the Lyari river or an area covered by small bushes where the people have to walk long distances. Of 80 houses, only one (1.3%) semi-pucca house has a living room. More than 88% of selected houses have no open space attached to the house property which shows that there is no hope of extending the house at ground level.

Infrastructural Facilities in and Outside the Houses.

6.021 The statistical analysis of collected data about basic amenities, sources of water and infrastructural facilities that the sampled households have inside and outside their houses are presented in Tables 6.4 to 6.7. As mentioned earlier (refer to conclusion of Chapter 4), the Sindh Katchi Abadis Authority and its Directorates, the Karachi Metropolitan Corporation, the Karachi Development Authority and the other organisations responsible for provision of infrastructural facilities, are trying very hard within their power and resources to resolve the problems of katchi abadi dwellers in the city of Karachi. For the implementation of programmes for the development or improvement of any katchi abadi in the city, the local authorities mentioned above have to work together for the success of proposed programme. Generally speaking the projects that involve supply of water, gas and electricity to the households and provision of drainage system in the city are carried out by the Karachi Water Supply and

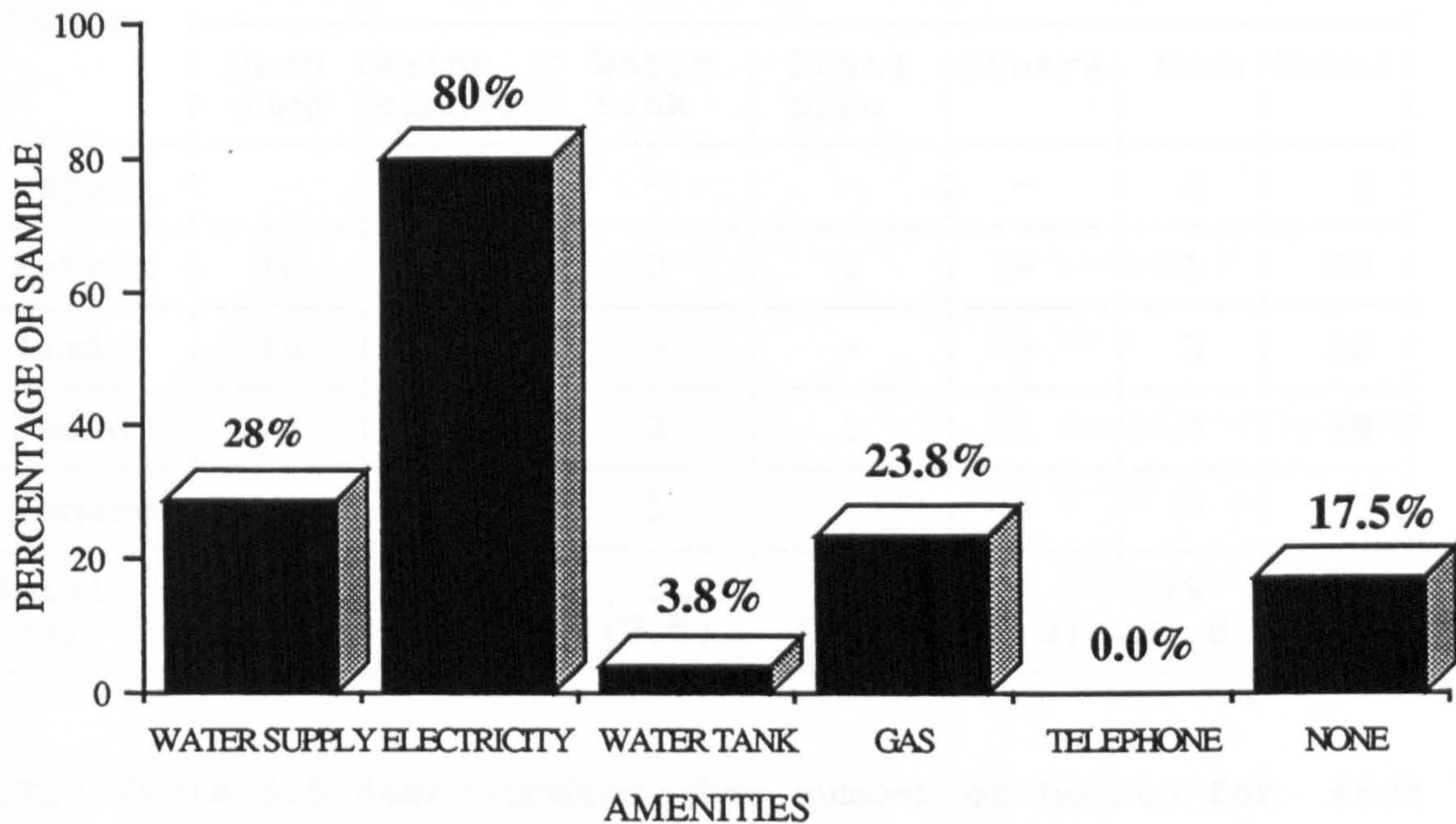
Sewerage Board, Karachi Gas Company and Karachi Electricity Corporation. When the projects are completed with the help of the Planning and Development Department of the Sindh Government, these are handed over to Karachi Metropolitan Corporation for the management and maintenance of projects in the future. (For structure and functions of existing planning and other agencies in Karachi refer to Chapter 5).

Table 6.4. Households Having Different Amenities.

House Types	Number of Houses Having Amenities						
	Electricity	Water supply	Gas supply	Water tank	Tele phone	Others	None
Juggi	-	-	-	-	-	-	2
Katcha	23	7	5	1	-	-	9
Semi	24	8	5	1	-	-	1
Pucca	15	6	8	1	-	-	2
Concrete	2	2	1	-	-	-	-
Total (%)	64 (80)	23 (29)	19 (24)	3 (4)	- (0.0)	- (0.0)	14 (17.5)

6.022 Table 6.4 is self-explanatory. This table and Figure 6.3 describe the presence of amenities in selected houses. The statistical analysis shows, 57 houses or more than 70% of all houses do not have a water supply. Of 80 households 77 or 96% do not have a water tank in the house, more than 75 percent cannot avail themselves of a gas supply, none of the interviewed households have a telephone service at home and 17.5% of houses do not have a single amenity out of the

Figure 6.3 DISTRIBUTION OF SAMPLE HOUSEHOLDS HAVING AMENITIES



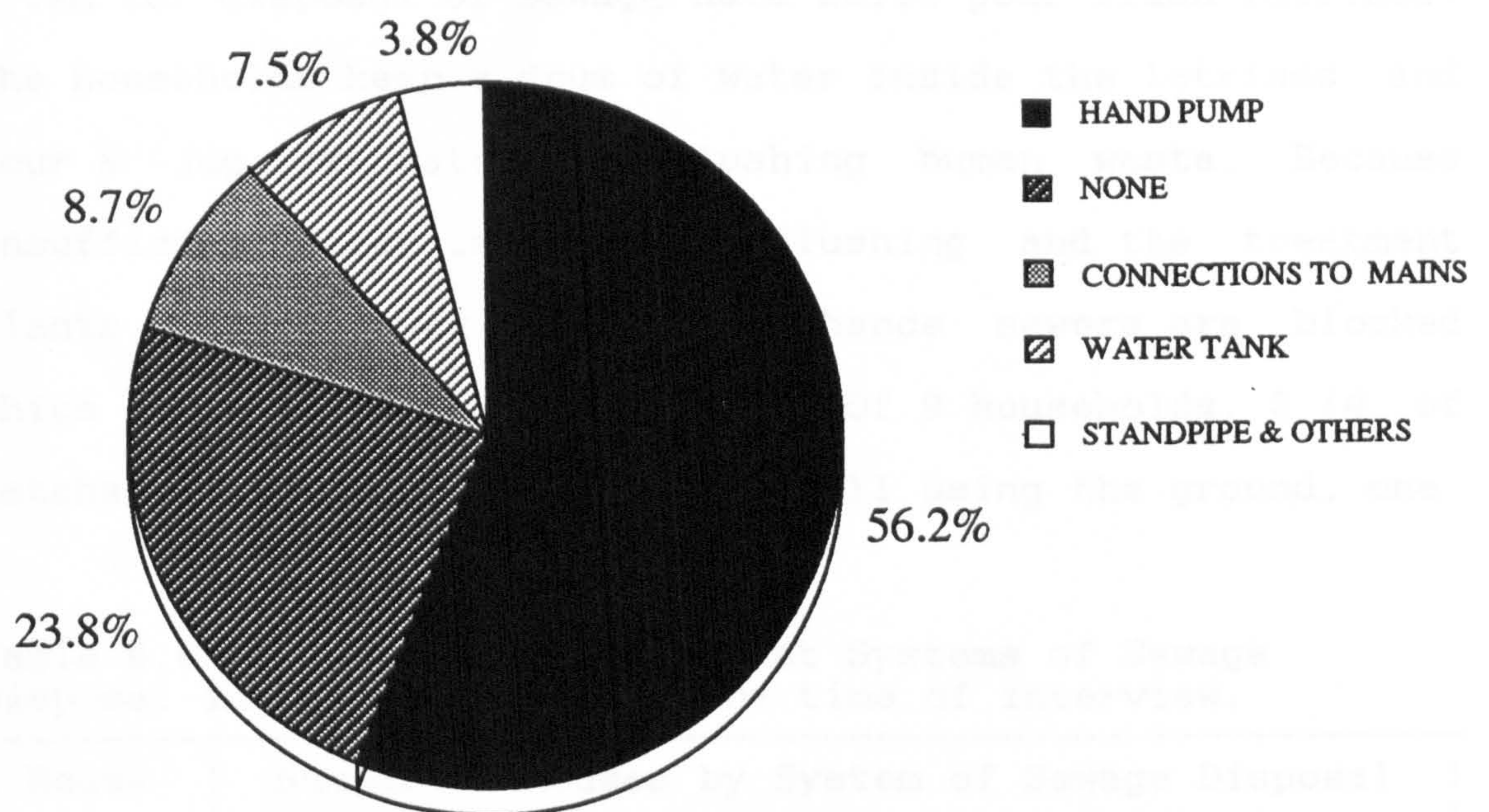
range specified above. Hence the analysis shows the existence of problems relating to lack of water supply, gas supply and telephone service in Area 1.

Table 6.5 Households by Source of Water in Lyari.

House Types	Number of Houses by Source of Water						Total
	Hand pump	Mains connec-	Water tank	Stand pipe	Others	None	
Juggi	-	-	-	-	-	2	2
Katcha	18	-	3	1	-	11	33
Semi	16	6	-	-	-	3	25
Pucca	10	1	2	1	1	3	18
Concrete	1	-	1	-	-	-	2
Total	45	7	6	2	1	19	80
(%)	(56.2)	(8.7)	(7.5)	(2.5)	(1.3)	(23.8)	(100)

6.023 Table 6.5 demonstrates: the number of houses for each type having an individual source of water, number of houses for all types having a particular source of drinking water in Lyari. This Table and Figure 6.4 show that most commonly (45 or 56% of all types) houses get water from a hand pump, 23.8% of the sample houses do not have any source of water in their houses, only 11.2% of houses enjoy stand pipe and mains connection sources of water (both are provided by local authorities). Whereas about 7 houses or less than 9% of sample houses have a water tank or other source of water. Statistics show that in all houses less than 10% have been officially provided with mains connections and the rest of

Figure 6.4 DISTRIBUTION OF SAMPLE HOUSEHOLDS % BY SOURCE OF WATER
SAMPLE SIZE, 80 HOUSEHOLDS, AREA 1, LYARI, KARACHI



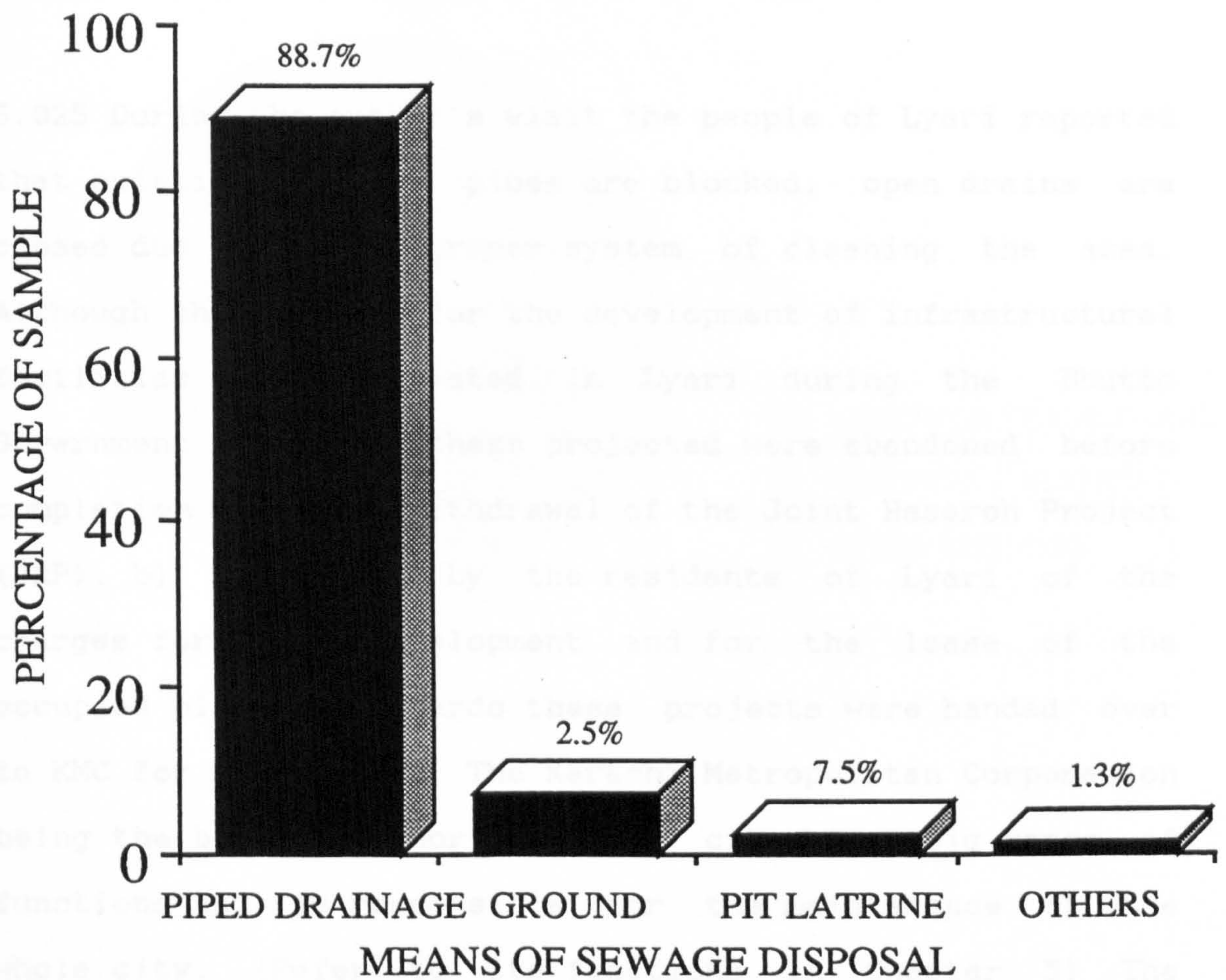
the population have to depend on standpipe or handpump sources of water. Therefore, drinking water seems a severe problem in Lyari.

6.024 According to Table 6.6 and Figure 6.5, some 71 (89%) of 80 households use a piped drainage system for disposal of sewage. Only 9 households dispose of their sewage on to the ground or in a pit latrine. The households who use drainage system for disposal of sewage have built pour flush latrines. The households keep a drum of water inside the latrines and pour a jug of water for flushing human waste. Because insufficient water is used for flushing and the treatment plants are far away from Lyari, hence sewers are blocked which cause flooding in the area. Of 9 households, 6 (4 of katcha and 2 of juggi type) are still using the ground, one

Table 6.6 Households by Different Systems of Sewage Disposal in Lyari Karachi at the time of interview.

House Types	Number of Houses by System of Sewage Disposal				
	Piped Drainage	Ground	Pit Latrine	Others	Total
Juggi	-	2	-	-	2
Katcha	28	4	-	1	33
Semi	24	-	1	-	25
Pucca	17	-	1	-	18
Concrete	2	-	-	-	2
Total	71	6	2	1	80
(%)	(88.7)	(7.5)	(2.5)	(1.3)	(100.0)

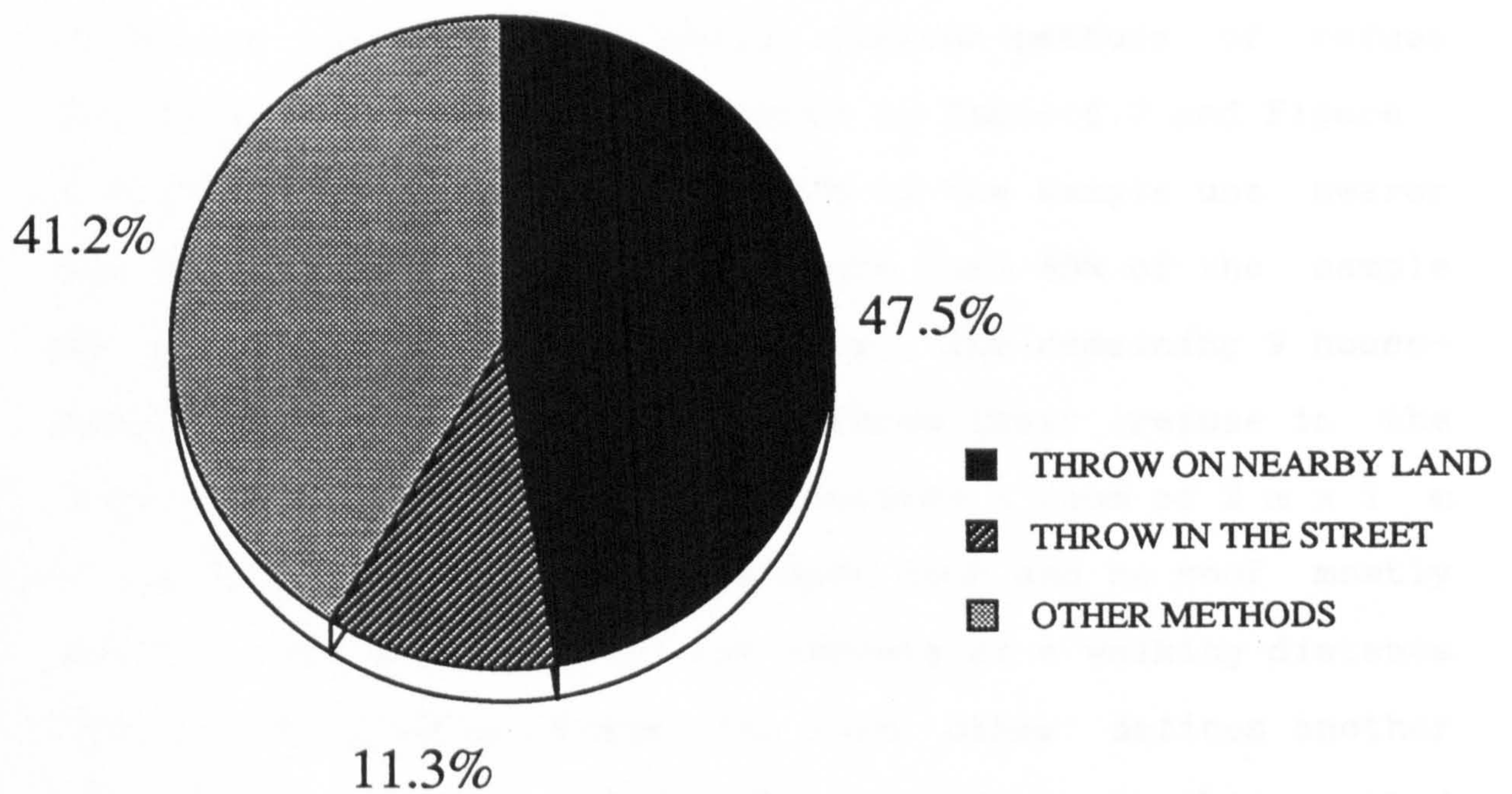
Figure 6.5 CLASSIFICATION OF INTERVIEWED 80 HOUSEHOLDS BY MEANS OF SEWAGE DISPOSAL



head of a katcha type house had dug an 'open hole' inside the house, which is cleaned out every few days. The cleaned out sewage is laid down on a plot which takes a few days to dry. As soon as it gets half-dried, the next batch of sewage is spread and so the plot remains wet. Because of the presence of standing water, bees and mosquitoes are found in these areas, which causes serious diseases.

6.025 During the author's visit the people of Lyari reported that existing drainage pipes are blocked, open drains are closed due to the improper system of cleaning the area. Although the projects for the development of infrastructural facilities were initiated in Lyari during the Bhutto Government (1971-77), these projects were abandoned before completion due to a) withdrawal of the Joint Research Project (JRP), b) nonpayment by the residents of Lyari of the charges for area development and for the lease of the occupied plots. Afterwards these projects were handed over to KMC for maintenance. The Karachi Metropolitan Corporation being the biggest authority in the city has a big range of functions and is responsible for the maintenance of the whole city. (Refer to its functions in Chapter 5) The Corporation with a long list of functions and limited staff and power cannot properly maintain the system in the city. The half-completed projects is assumed one of the reasons for poor maintenance. It seems that due to inadequate design and poor maintenance the system is not maintained properly.

Figure 6.6 DISTRIBUTION OF SAMPLE HOUSEHOLDS, USING VARIOUS METHODS OF REFUSE DISPOSAL IN AREA 1, LYARI, KARACHI



Hence the existing drainage system along with other infrastructural facilities needs some improvement measures in Lyari.

6.026 Table 6.7 describes the methods of refuse disposal used by sample households in Area 1. It shows the number of houses of each type using a particular method and the number of houses of all types using various methods of refuse disposal. The statistics presented in Table 6.7 and Figure 6.6 show that 38 households or 47% of the sample use nearer land, 33 households or a little more than 40% of the sample use other methods of refuse disposal. The remaining 9 households i.e nearly 11% of sample throw their refuse in the streets. The term 'nearer land' defines a room of 2 m x 1 m x 3 m (A container) having an open door and no roof mostly built on the side of roads and streets at a walking distance from the residential areas. The term 'other' defines another method of collection and disposal of refuse. In this method the people deposit refuse in a small bin (basket) kept outside of the house and cleaners appointed by K M C carry it and dispose of it on 'nearer land'.

6.027 The researcher was told that cleaners (KMC staff) are paid by the residents for carrying refuse, otherwise they do not come even to sweep streets in area. It was personally observed that the containers were full of refuse, water was floating on streets and refuse was lying on roads. From the

above information it seems that the facilities for refuse disposal exist in the area, but these are misused. Hence the existing facilities require improvements.

Table 6.7 Households by Methods of Refuse Disposal.

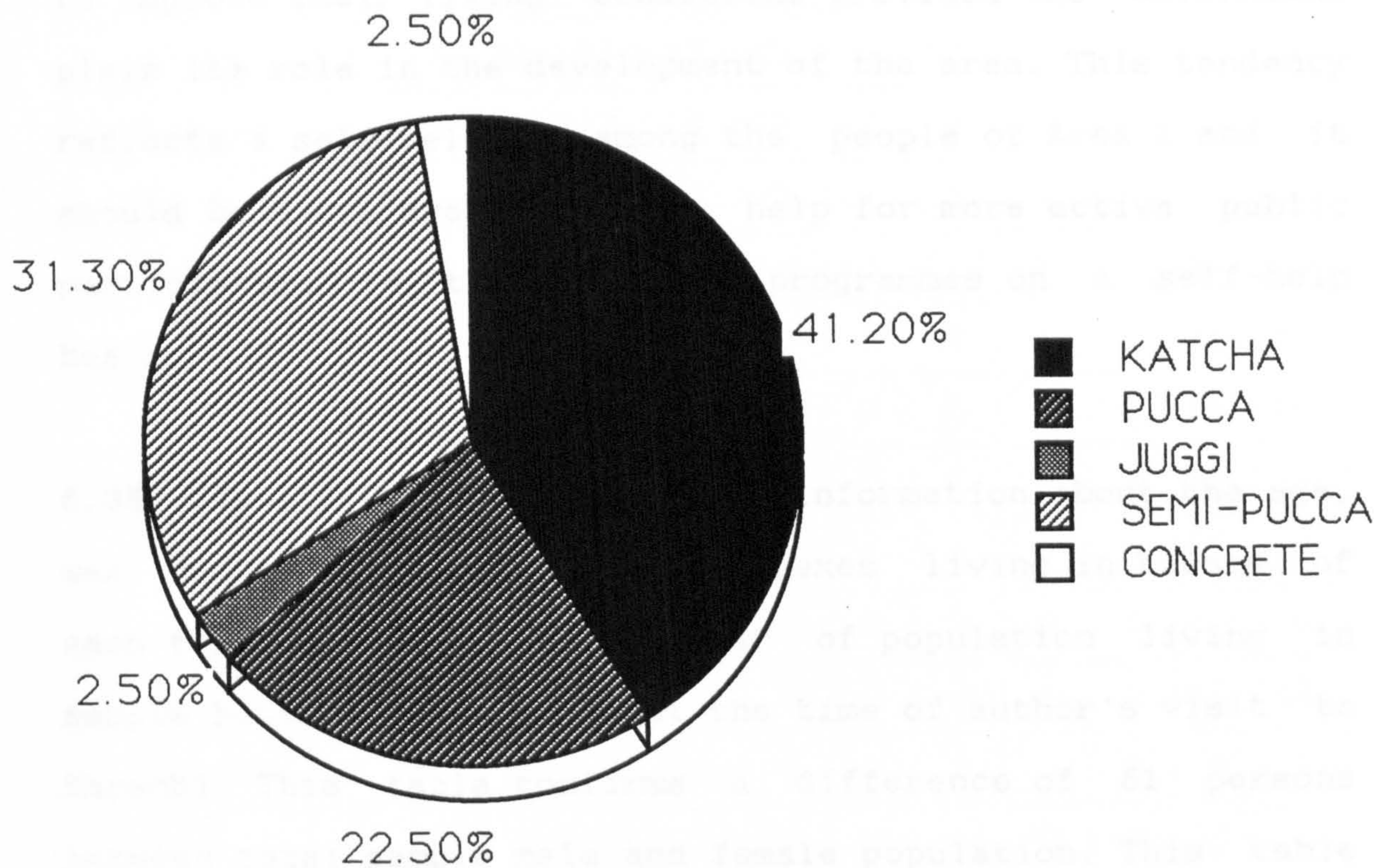
House Types	Number of Houses by Methods of Refuse Disposal						Total
	Burn	Use as fuel	Throw street	Dump on pub lan	Throw nearer	Others	
Juggi	-	-	-	-	2	-	2
Katcha	-	-	1	-	17	15	33
Semi	-	-	6	-	13	6	25
Pucca	-	-	2	-	6	10	18
Concrete	-	-	-	-	-	2	2
Total	00	00	9	00	38	33	80
(%)	(0.0)	(0.0)	(11.3)	(0.0)	(47.5)	(41.2)	(100)

Table 6.8 Household Heads by House Types in Lyari.

House Types	Number of Household Heads	Percentage
Juggi	2	2.5
Katcha	33	41.2
Semi Pucca	25	31.3
Pucca	18	22.5
Concrete	2	2.5
Total	80	100.0

6.028 Table 6.8 shows that 58 (72%) of the interviewed heads live in katcha and semipucca type houses. Only 23% of total households live in pucca houses, whereas 4 heads or 5% live in juggi and concrete type houses (see Figure 6.7). The existence of a high percentage (41) of katcha houses in Lyari is attributed to the lack of security to title, lack of attention from local authority to existing problems, long procedure for issuing a lease or of plots and lack of residents' awareness towards development of area.

Figure 6.7 DISTRIBUTION OF SELECTED 80 HOUSEHOLDS BY THE TYPE OF HOUSEHOLD. AREA 1, LYARI, KARACHI.



6.029 The distribution of houses over streets and roads in Lyari is very irregular. The majority of pucca and semi pucca houses were found along the main streets and roads, whereas the other three types of houses were frequently found in the interior parts of the area. It was learnt from the people of Lyari that, they are willing to invest money to improve their living conditions provided the Government plays its role in the development of the area. This tendency reflects a self-reliance among the people of Area 1 and it should be encouraged with some help for more active public participation in the community programmes on a self-help basis.

6.030 Table 6.9 provides detailed information about the age, sex, number of persons for both sexes living in houses of each type and the total number of population living in sample households in Lyari at the time of author's visit to Karachi. This table confirms a difference of 61 persons between total sample male and female population. This table reveals that a high proportion (94%) of sample population live in katcha (41%), semi pucca (29%) and pucca (24%) type houses. The remaining 6% of sample population live in juggi (3%) and concrete (3%) type houses.

Table 6.9 Age, Sex Composition of Population Living in the Sample Households of Each Type in Lyari Karachi.

Age in Years	Population Living in Houses of Each Type.											
	Juggi		Katcha		Semi		Pucca		Conc		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
0---4	2	2	23	18	8	5	5	6	1	1	39	32
5---9	2	2	30	23	13	12	10	13	2	1	57	51
10---14	1	3	29	17	13	22	17	9	1	2	62	39
15---19	3	0	15	20	13	22	17	9	0	2	48	53
20---24	0	0	18	13	15	15	14	6	2	0	39	34
25---29	0	0	11	11	15	10	8	10	1	2	35	33
30---34	0	1	6	4	7	3	5	6	1	0	19	14
35---39	1	0	4	11	2	4	3	1	0	0	10	16
40---44	0	1	8	7	5	6	0	6	0	0	13	20
45---49	0	0	8	1	4	5	5	3	0	1	17	10
50---54	0	0	7	3	4	3	3	6	1	0	15	12
55---59	0	0	4	3	3	4	2	2	0	0	9	9
60--- +	1	0	6	3	7	2	4	1	0	1	8	7
T o t a l	10	9	169	134	109	99	94	78	9	10	391	330
(M + F)	(19)		(303)		(208)		(172)		(19)		(721)	

6.031 With the help of Table 6.8, the author has calculated the average family size for houses of all types. The average family size in Lyari is 9.0 persons per household, the average in each type being respectively 9.5 (juggi), 9.1 (katcha), 8.3 (semipucca), 9.6 (pucca) and 9.5 (concrete). Referring to data about number of bedrooms presented in Table 6.1, the author intends to calculate number of persons per bedroom in sample households of each type.

The co-relationship of two tables (6.1 and 6.9) confirms the average family size per bedroom as 9.5 (juggi), 6.4(katcha), 6.0 (semipucca), 5.7 (pucca) and 6.3 (concrete).

6.032 From the above statistics it is confirmed that a very high proportion (70%) of sample population live in katcha and semipucca type houses. The average family size per household and particularly per bedroom for houses of all types is very surprising. The statistics reveal that juggi a house of low quality has significant average occupancy of 9.5 persons per bedroom.

Status of Occupancy and Migration.

6.033 Table 6.10 and Figure 6.8 give statistics about the occupancy status of the population living in a sample of 80 houses in Lyari. These show the number and percentage of different types of houses and the type of tenure that heads have acquired at the time of interview. It is clear from Table 6.10 that the heads of 28 houses except juggi and

Table 6.10 Heads of Households by Status of Occupancy.

Dwelling Types	Number of Heads by Status of Occupancy						Total
	Owner	Leaseholder	Allot plot	Allot house	Squat	Tenant	
Juggi	-	-	-	-	1	1	2
Katcha	18	3	-	-	3	9	33
Semi	5	3	-	-	2	15	25
Pucca	5	8	-	-	-	5	18
Concrete	-	2	-	-	-	-	2
Total	28	16	00	00	6	30	80
(%)	(35.0)	(20.0)	(0.0)	(0.0)	(7.5)	(37.5)	(100.0)

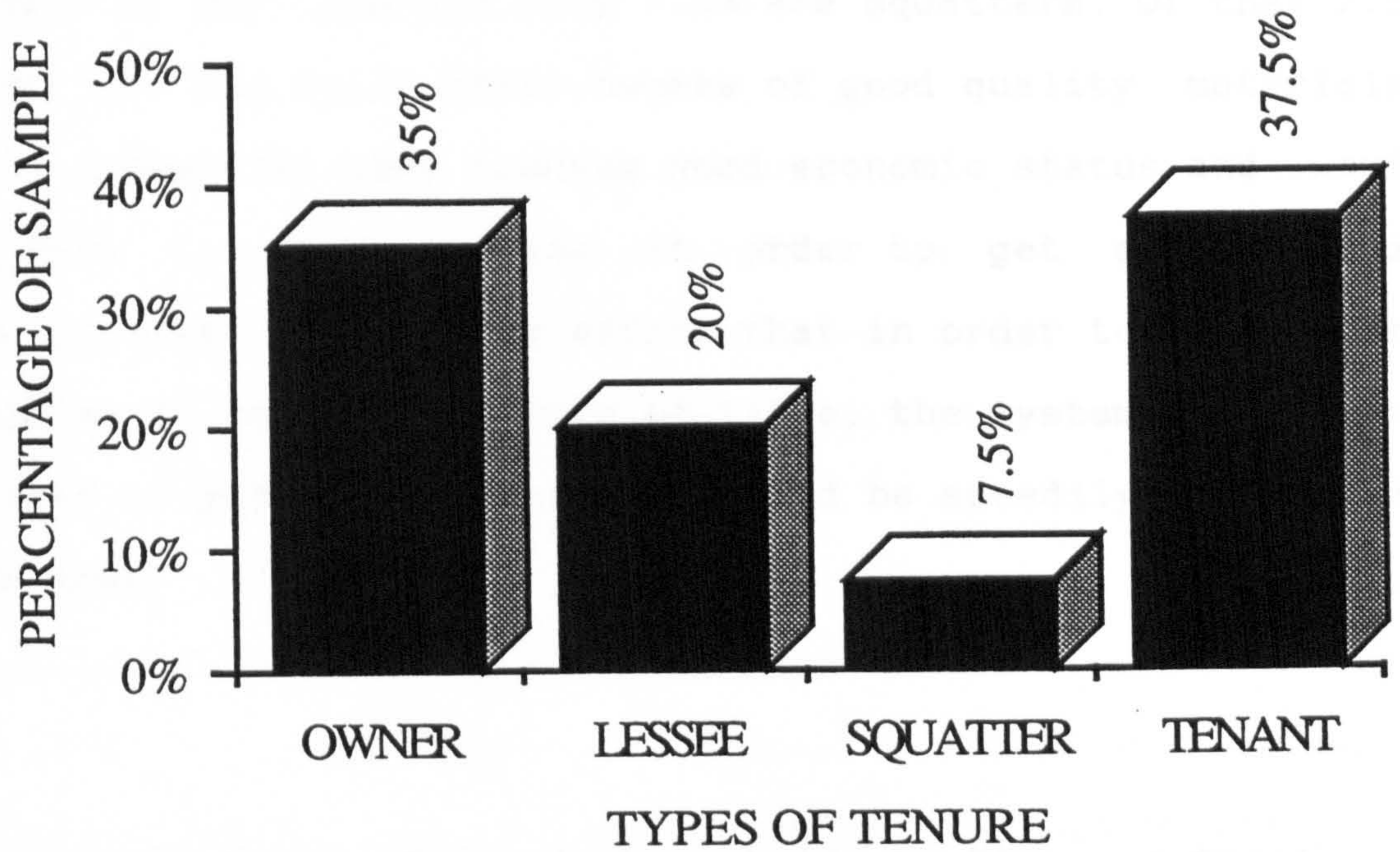
concrete types had owned status, 16 heads had signed a 99-years lease contract for land (plots) with the local authorities and had constructed houses according to their own plans so they had lessee status. In the case of owned status it was learned that the heads of households had paid all the instalments for the value of occupied plots and had obtained a certificate for rights of ownership from the authorities concerned. Of 80, only 6 heads had squatted on plots in the area and the remaining 30 heads had rented houses so they possess tenant status. In the case of a owner and leaseholder, the occupier is more secure than a squatter or a tenant. The squatter is always at the mercy of local authorities, and the tenant depends on the will of the landlord. In Lyari, it was learnt that the owners of rented

Table 6.10 a Households by Type of Tenure and Monthly Income

Type of Tenure	Monthly Income in Pakistani Rupees						
	00.00	1-400	401-800	801-1200	1201-1600	1601-2000	2000 +
Owner	1	1	1	6	10	2	7
Lessee	2	0	0	2	4	0	8
Squatter	0	0	2	3	1	0	0
Tenant	0	0	8	6	5	3	8
Total	3	1	11	17	20	5	23

The statistics shown in Table 6.10 (a) confirm that those households who owned their houses, a high number (10) households had income from 1201 to 1600 rupees per month. Some 7 households had income more than 2000 rupees per month and the head of 1 household had no regular income. Of 16 households who had lessee status, some 50% had income more than 2000 per month, some 6 households earn from 801 to 1600 rupees and the remaining 2 households had no regular income. The households having squatter status had monthly income between 401 and 1600 rupees; whereas of 30 tenant households some 8 households had income more than 2000 rupees, other 8 households had income from 801 to 2000 rupees and the remaining 14 households had income from 401 to 1200 rupees per month. This table further shows that in all households some 28 households had income between 401 and 1200 rupees, some 25 households had between 1201 and 2000 rupees, some 23 households had more than 2000 rupees and the remaining 4 had less than 400 rupees (1) and no regular income (3) in Lyari.

Figure 6.8 DISTRIBUTION OF SAMPLED HOUSEHOLDS BY TENURE STATUS.
AREA 1, LYARI, KARACHI-SAMPLE = 80



houses live in the same area. Some of the landlords had threatened renters and had brought cases to court to evacuate the tenants because the owners wished to build multi-storey flats on these plots.

6.034 The figure shows that 55% of heads had owned (35%) and lessee status (20%), some 37% are tenant who can vacate houses at any time and only 7.5% are squatters. Of that 7.5% most (6%) had built their houses of good quality materials. This shows that they possess good economic status and would be able to sign a lease in order to get an ownership certificate. The results affirm that in order to reduce the problem of lack of security of title, the system of issuing leases of plots to occupiers should be speedily adopted in the area.

Table 6.11 Heads of Sample Households by Place of Origin.

Place of Origin	Number	of	Heads	(%)
Karachi City	69			(86.3)
India	7			(08.7)
Another province	3			(03.7)
Another city	1			(01.3)
Bangala Desh	0			(00.0)
T o t a l	80			(100.0)

6.035 The statistical analysis of the origin of 80 household heads in Lyari is presented in Table 6.11. The statistics show the number of heads and the places from whence these heads had migrated. More than 85% of heads living in Lyari belong to Karachi City. Out of the 11 heads who are migrants, 7 (8.7%) had migrated from India either at the time of Independence (1947) or soon after it, 3 (3.7%) migrated from other parts of the country and only one originally belonged to another city in Sindh Province. None of the migrants from the east wing of the country (Bangladesh 1971) has been settled in Lyari. This shows that 86% of the sample living in Lyari are non-migrants, therefore migration is not a severe problem in Area 1.

6.036 To obtain more information about the process of settlement in Lyari, heads of sample households were asked to give their first place of residence. The data gathered is shown in Table 6.12. Out of 80 heads some 61 or 76% said that they have been living in Lyari since their forefathers, heads of 11 (13.7%) households said they were living in a area close by the place of their present residence, and 8 (10%) heads confirmed another part of the city as their first place of residence. Table 6.11 shows that of 80 heads presently living in Lyari, 11 had migrated and 69 belong to Karachi. But this table shows that in addition 11 migrants migrated from areas nearby, 8 more heads had moved to Lyari from other areas.

Table 6.12 Heads of Households by Residence Before Moving to Present Residence in Lyari Karachi, Nov 1988.

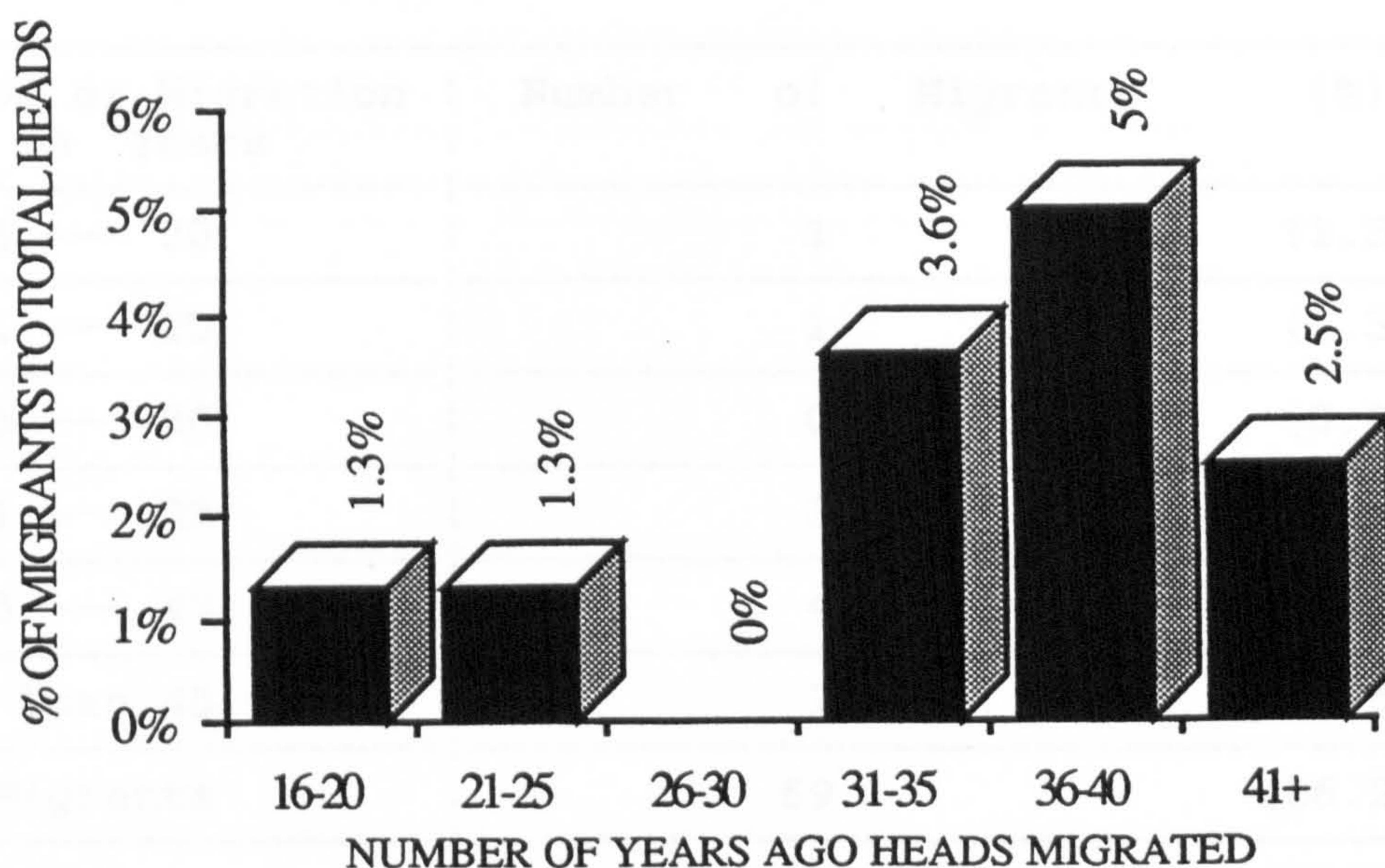
Name of Place	Number of Heads Living in	(%)
Same area (Lyari)	61	(76.3)
Close to Lyari	11	(13.7)
Another Part of City	8	(10.0)
Elsewhere in Country	0	(00.0)
T o t a l	80	(100.0)

6.037 The following Table 6.13 gives information about the heads of 80 households forming the sample in Lyari, and about the period (in years) that the migrants moved from the place of their origin to Karachi city. Of 11 migrants, 4 heads had arrived in Karachi about 40 years ago, 3 heads had moved from their place of origin 31-35 years ago, 2 have been living in Karachi since Independence Day (1947), and the remaining 2 migrants had settled in Karachi during the last 16-25 years. (See Figure 6.9)

6.038 Broadly speaking, on their arrival in large cities, migrants arrange their initial accommodation by the following modes.

1. Stay with relatives ,
2. Stay with co-villagers or friends,
3. Squat on either Government or private land,

Figure 6.9 DISTRIBUTION OF MIGRANTS BY THE PERIOD OF ARRIVAL IN KARACHI. AREA 1, LYARI, KARACHI. SAMPLE SIZE= 80 HOUSEHOLD HEADS.



4. Purchase their own house,

5. Rent a house, or

6. Stay in 'camp' accommodation arranged by the Government for International refugees.

Table 6.13 Migrants Living in Lyari by Period of Migration From Place of Origin to Karachi.

Period of Migration In Years	Number of Migrants	(%)
16 --- 20	1	(1.3)
21 --- 25	1	(1.3)
26 --- 30	0	(0.0)
31 --- 35	3	(3.7)
36 --- 40	4	(5.0)
More Than 40	2	(2.5)
Non-Migrants	69	(86.2)
T o t a l	80	(100.0)

6.039 The statistics shown in Table 6.14 provide an analysis of the types of accommodation that the migrants had initially procured on their arrival in Karachi before moving to Lyari. Out of 11 migrated heads, 4 had stayed with relatives, 4 heads had rented houses, and 2 had squatted in the city. Only one head was placed in a camp and none had stayed with friends or purchased their own house.

Table 6.14 Migrant Heads by How Accommodation has Procured on Their Arrival in Karachi City.

Type of accommodation	M i g r a n t (Number)	H e a d s (%)
Stayed with relative	4	(36.4)
Shared with a friend	0	(00.0)
Purchased own house	0	(00.0)
Rented a house	4	(36.4)
Squatted in the city	2	(18.2)
Others (govt's camp)	1	(09.1)
T o t a l	11	(100.0)

Table 6.15 Heads of Households by Level of Education.

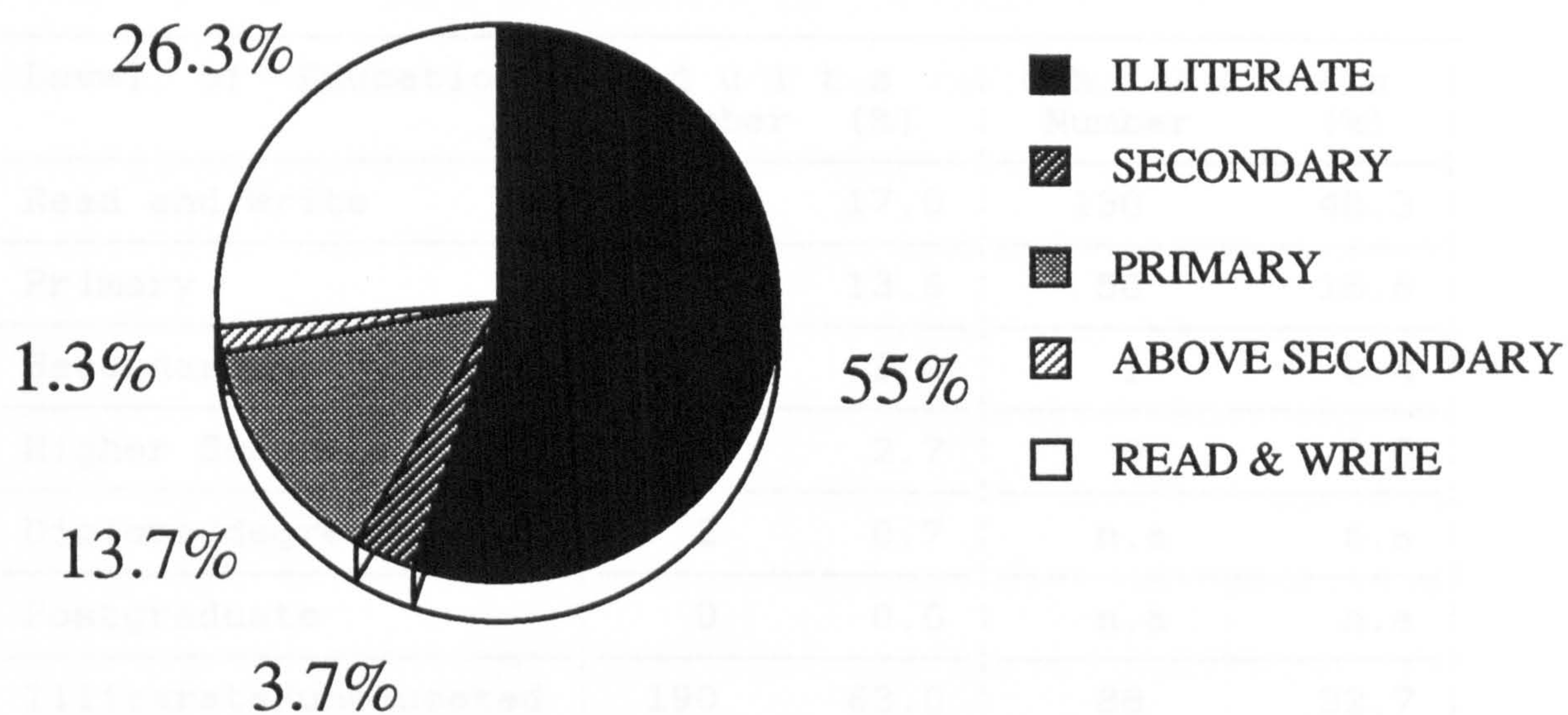
Level of Education	Number of Heads	(%)
Read and Write	21	(26.3)
Primary	11	(13.7)
Secondary	03	(03.7)
Higher Secondary	00	(00.0)
Diploma/ degree	01	(01.3)
Postgraduate	00	(00.0)
Illiterate/uneducated	44	(55.0)
Total	80	(100.0)

6.040 Table 6.15 provides a statistical analysis of the level of education that the heads of 80 households possessed at the time of my visit to Lyari. It shows that of 80 interviewed heads some 44 are illiterate, 21 can only read and write, and 11 had primary education. Only 4 heads had diploma and degree level of education, and none had a postgraduate degree.

6.041 Figure 6.10 divides total heads of households and education into three categories. More than half (55%) of heads are uneducated, more than 26% had informal education and only 18% of all heads had formal education. The reading and writing level of education contains those heads who had learnt by an informal method of learning and can read a piece of any sub-continental language and can write in it. The formal category of education comprises those heads who had attended schools and can read and write the National and the Provincial languages. The heads of household who had nil education fall in the uneducated category level of education

6.042 It is fact that a high number 65 (81.3%) of heads are illiterate or have an informal education because, before or soon after the Independence of Pakistan (1947), there were few schools, the country was developing at a slow pace, and it had not enough resources for the opening of new schools. With little information about the importance of education and with limited income, the people could not afford to go

Figure 6.10 EDUCATION LEVEL OF THE HEADS OF HOUSEHOLDS IN AREA 1, LYARI, KARACHI.



abroad or to other cities for education. Hence this number includes the very old or retired heads. The educational services provided by the Government during the 42 years of Independence can be judged from the level of education of the other members (except heads) of a family.

Table 6.16 Family Members Other than the Heads of the Households by Level of Education in Lyari Karachi.

Level of Education	A d u l t s		C h i l d r e n	
	Number	(%)	Number	(%)
Read and Write	51	17.0	130	48.3
Primary	41	13.6	50	18.6
Secondary	9	3.0	1	0.4
Higher Secondary	8	2.7	0	0.0
Diploma/degree	2	0.7	n.a	n.a
Postgraduate	0	0.0	n.a	n.a
Illiterate/uneducated	190	63.0	88	32.7
T o t a l	301	100.0	269	100.0

6.043 From Table 6.16, we know about the educational qualifications of adults and children living in the sample households in Lyari. It gives the total number of adults except 80 heads, total number of children for both sexes excluding children of age 0-4 years (because they are under school age), and the total number of adults and children possessing that particular level of education.

6.044 The left column of the table shows that of 301 adults living in sample houses 190 i.e more than 60% of adults have no education, 51 or 17% of adults have had an informal education, whereas 60 adults or hardly 20% of the total had a formal education. Of the 20% of adults having a formal education, 13% possess the primary level of education and none are postgraduates.

6.045 The other part of Table 6.16 provides statistics about children's education. A total of 269 children are recorded as being of school age. Out of that, 130 children i.e a little less than 50%, can only read and write, 19% possess primary and secondary level of education, whereas, the remaining 88, or more than 32% are illiterate. Those who can only read and write (a high proportion at 48.3%) represent many groups of children- those who have started schooling, who learn in the traditional Islamic style and those who have stopped education and are sharing economic responsibility with their parents.

6.046 The capacity of the existing schools falls short of the demand for the area. The educational standard is far from satisfactory. School fees are high, and the poor can not afford these. The lack of attention from authorities concerned in launching development projects within Lyari is also an indication of the low level of education.

Economic Characteristics Area 1.

6.047 In order to prepare a suitable plan for the physical improvement of an underdeveloped area of a large city like Karachi, a study of the economic characteristics of that underdeveloped area is one of the crucially important factors. Data about economic characteristics related to a particular slum area provides information in detail about its existing economic situation. The economic elements such as occupational distribution, place of work, travelling mode used to workplace and monthly income and expenditures of households are those descriptive indicators which often present a clear picture of the economic characteristics of the area under investigation. An insight into such elements generally provides valuable information about the characteristics of the people living in such an area. From these results, the factors responsible for the emergence and continuation of sub-standard conditions in the area could be deduced. The physical, social and economic growth of Lyari and Korangi and the living conditions of the people living there can be judged from available job opportunities in the vicinity and from the availability of frequent and cheap transport to and from the place of work. The attachment to the place of habitation indicates that economic attractions are associated with the area. A vast majority of Lyari and of Korangi people being engaged in unclassified jobs, they can find work either in or close by their places of

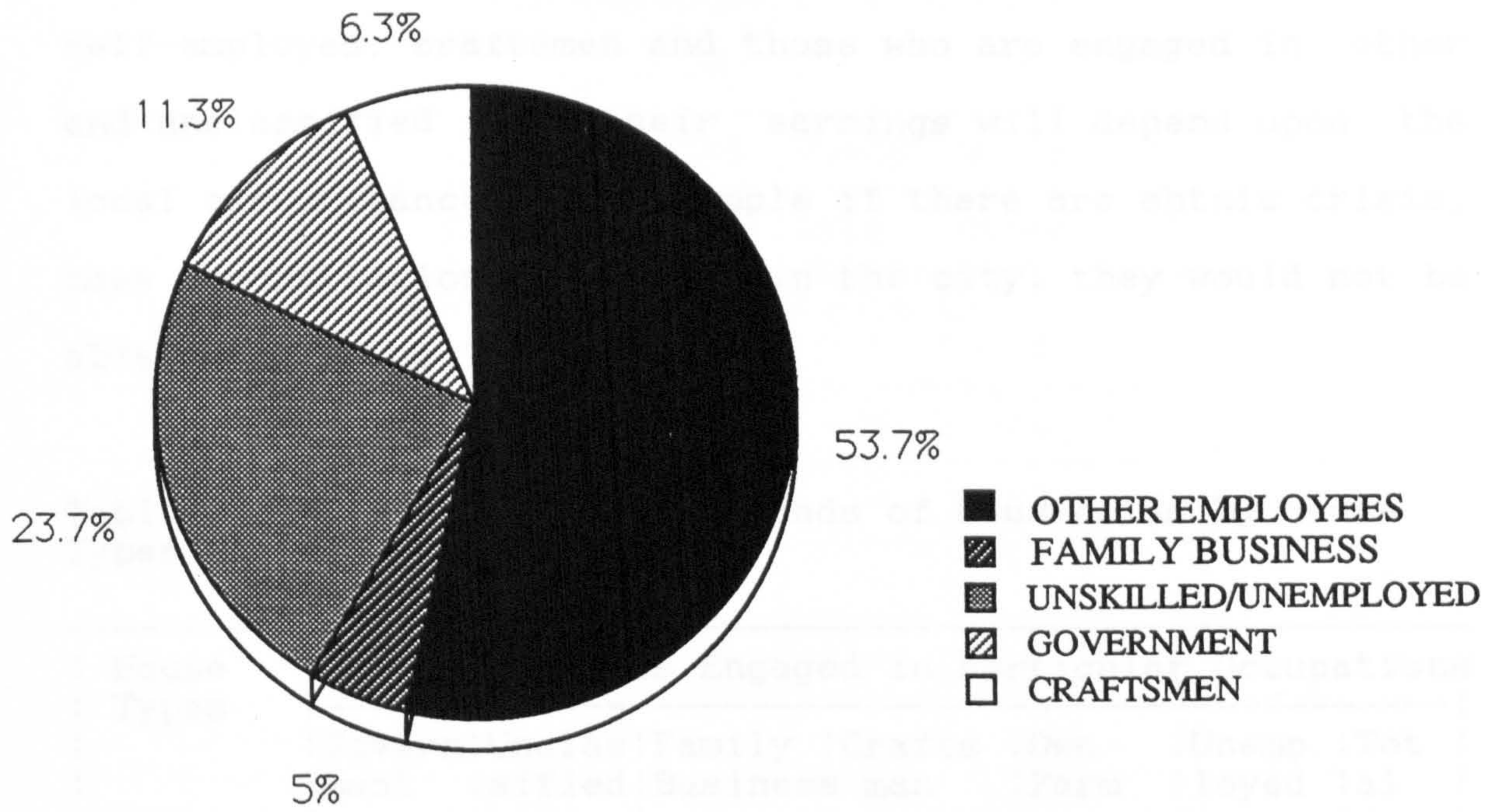
residence, within walking distance.

6.048 This section deals with a few of the above mentioned aspects of economic characteristics in both areas. Among them occupational structure, choice of occupation, sources of earning, monthly income and expenditure of family members are of particular interest for the purposes of determining a true picture of the economic status of the Study Areas and for formulation of policy and strategies towards future improvement.

Occupation Profile.

6.049 Occupational distribution is one of the determinants of the economic conditions of the population living in slum areas. In order to understand the economic characteristics of a slum and to propose a strategy for its improvement, investigation into the occupational profile is of very great importance. The findings of the present study shown in Table 6.17 and Figure 6.11 reveal that a high number (43) of heads, or more than 50% of the sample, are other, unclassified employees, including drivers, labourers, persons working as waiters in hotels, loaders and unloaders at ports and, as guardsmen in Lyari Karachi. A reasonable number 19 (24%) of heads in Lyari are unemployed. Those employed in a Government job, working in managerial, administrative, professional, and clerical work comprise only 11% of the total respondents, the remaining 11% have their own

Figure 6.11 OCCUPATIONAL PROFILE OF SAMPLE HEADS OF HOUSEHOLDS.
AREA 1, LYARI, KARACHI. SAMPLE SIZE= 80 HEADS OF HOUSEHOLDS.



businesses or are engaged in domestic and utility services, such as technicians, mechanics, craftsmen and masons who need a little or no education but are skilled. From this information the author assumes that except those who are employed in government offices and those who run their own business, the others have no regular income. In case of the self-employed, craftsmen and those who are engaged in other and unclassified jobs, their earnings will depend upon the local circumstances; for example if there are ethnic crisis, mass demonstrations or curfew in the city, they would not be able to work regularly.

Table 6.17 Classification of Heads of Households by House Types and Occupation in Lyari.

House Types	Number of Heads Engaged in Particular Occupations						
	Government	Unclassified	Family Business	Crafts man	Own Farm	Unemployed	Total
Juggi	-	-	-	2	-	-	2
Katcha	1	26	1	2	-	3	33
Semi	6	7	2	1	-	9	25
Pucca	1	9	1	-	-	7	18
Concrete	1	1	-	-	-	-	2
Total	9	43	4	5	00	19	80
(%)	(11.3)	(53.7)	(5.0)	(6.3)	(0.0)	(23.7)	(100)

6.050 Table 6.18 gives a numerical analysis of the types of occupation and workplaces for our sample of 80 household heads living in Lyari. These show:

1. the range of occupations of heads of household ;
2. the number of heads engaged in each type of occupation;
3. the number of heads in a particular type of occupation and place where all these heads go to work.

Table 6.18 Heads of Households by Occupation and Place of Work in Lyari Karachi.

Types of Occupation	Number of Heads by Place of Work					Total
	Same area	Close byarea	City centre	Other part	No where	
Government	-	3	1	5	-	9
Private	13	12	4	14	-	43
Family Business	3	-	-	1	-	4
Craftsman	3	2	-	-	-	5
Own Farm	-	-	-	-	-	0
Unemployed	-	-	-	-	19	19
T o t a l	19	17	5	20	19	80
(%)	(23.7)	(21.3)	(6.3)	(25.0)	(23.7)	(100.0)

6.051 Of the 80 heads of household, 19 (24%) are not in employment and so do not have any workplace. The two major occupational types are unclassified (43) and Government (9), employing between them 65% of all heads (76.3% of all heads in employment). Of the heads of household forming the sample nearly one-third (33%) work either in the centre or in other parts of the city; 36 (45%) of all heads work either locally (within the residential area) or close by. Those working in the family business and craftsmen 9 (11.3%) of sample have

workplaces focused strongly in their 'home' place or close by. Of the 20 jobs in 'other parts' of the city, 14 belong to unclassified category and 5 are employed in offices by the Government, reflecting the relative spread of these functions and hence also of such opportunities. The data reveals that very few (9) heads in the sample are employed in Government jobs, and two-third of them work far from their place of residence. Overall 25 heads travel to work far from home- which in economic terms is significant. A good amount of their income and of their time could be spent on transportation. Hence the area of study exhibits lack of jobs for managerial, administrative, and for skilled people.

Table 6.19 Heads of Households by Mode of Journey to Work.

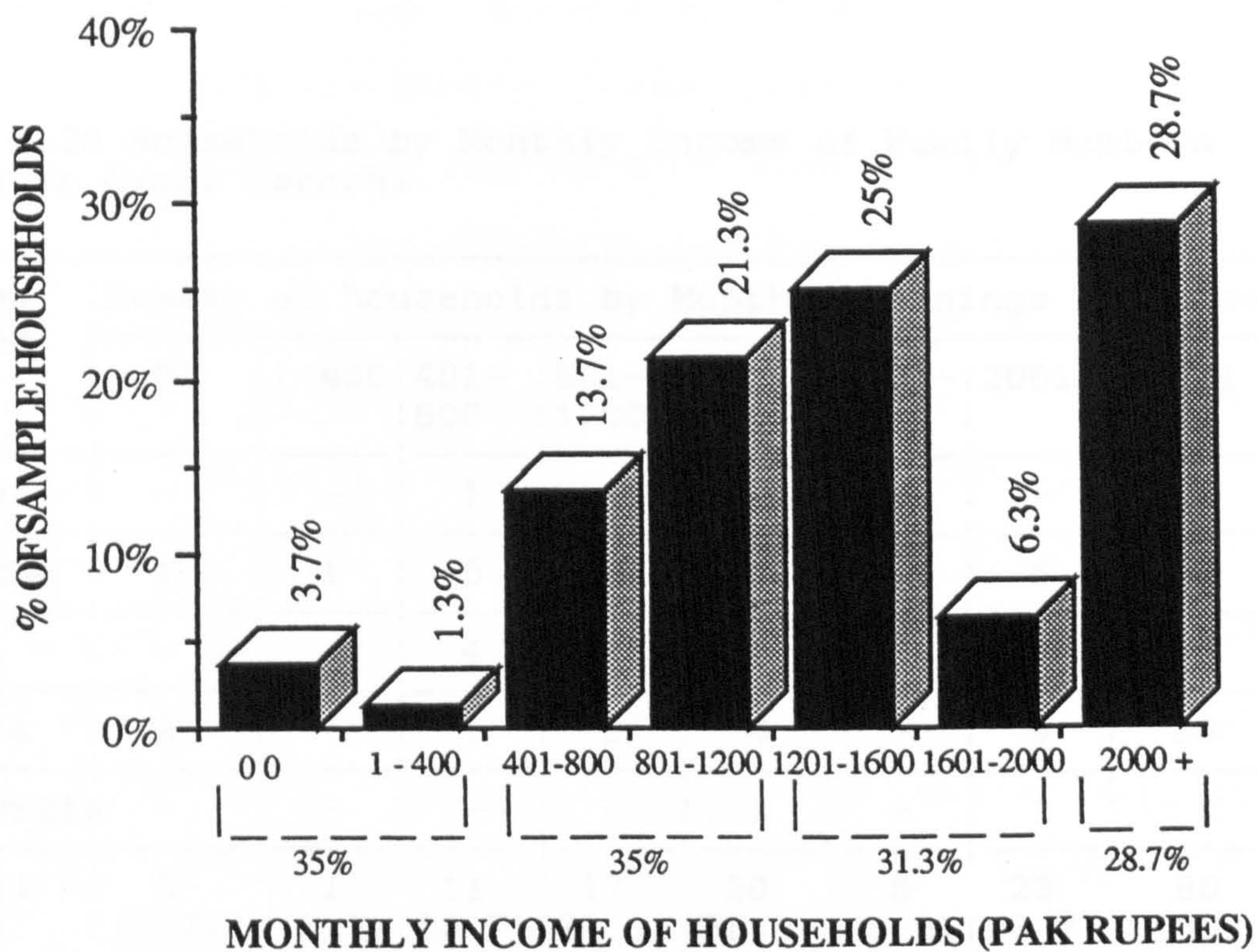
Mode of Journey	Number of Heads by Mode of Travel					Total
	Same area	Close area	City centre	Other part	No where	
Company bus	-	-	-	1	-	1
Public Trans	-	4	4	9	-	17
On Foot	19	12	-	3	-	34
Bicycle	-	1	1	-	-	2
Taxi/Car/Auto	-	-	-	7	-	7
Not applicable	-	-	-	-	19	19
T o t a l	19	17	5	20	19	80

6.052 Table 6.19 gives statistical results of 80 household heads and of the mode of travel which these heads use to and

from their workplace in Lyari. The most commonly used mode of travel by 34 heads or more than 40% of sample is by foot. The other major mode used by 17 (21.3%) of heads to workplace is private transport. In Lyari there is no public transport facility, the majority of heads go either on foot or travel by private mini-buses. The other 7 heads working in other places in the city use motorised vehicles: car, taxi or motorcycle. Two heads, one working near to his residential area and one in the city centre keep a bicycle for going to their workplace and only one who is employed in another part of the city uses a company bus facility.

6.053 The socio-economic survey conducted in above areas of Metropolitan Karachi was also designed to gather facts and figures about the regular monthly income, extra earning, sources of extra earning and about monthly expenditures of sample households in each study area. The information about earnings per month gathered in Lyari is shown in Table 5.20. This table broadly classifies sample households in four major income groups: those with nil income; the households having an income less than Pak rupees 1200 a month; the households with an income more than Pak rupees 1200 but less than Pak rupees 2000 per month and; those having an income more than Pak rupees 2000 a month. Of 80 households, 54 (67%) of the sample have a regular income less than Pak rupees 2000 per month, 23 (29%) of all households have a monthly income more than Pak rupees 2000 and the remaining 3 (3.7%) households have no regular income from any source.

Figure 6.12 HOUSEHOLDS BY MONTHLY INCOME OF FAMILY MEMBERS IN AREA 1, LYARI, KARACHI. SAMPLE SIZE = 80 HOUSEHOLDS



(See Figure 6.12). Table 6.20 also provides information about the income distribution of all households of a particular house type. For example one household of juggi type has an income up to Pak rupees 800 per month and the other has income less than Pak rupees 1600 per month. Table 6.20 also shows that the 3 household heads (one of katcha type and two of pucca type) of all the sample have a nil regular income.

Table 6.20 Households by Monthly Income of Family Members Living in Lyari Karachi.

House Types	Number of households by Monthly Earnings in Rupees							Total
	00	1-400	401-800	801-1200	1201-1600	1601-2000	2001+	
Juggi	-	-	1	-	1	-	-	2
Katcha	1	1	5	8	0	2	6	33
Semi	-	-	4	7	4	3	7	25
Pucca	2	-	1	2	4	-	9	18
Concrete	-	-	-	-	1	-	1	2
Total	3	1	11	17	20	5	23	80
(%)	(3.7)	(1.3)	(13.7)	(21.3)	(25.0)	(6.3)	(28.7)	(100)

6.054 Table 6.21 presents:

(i) the total number of households having a source of extra income;

(ii) the number of households in a dwelling of each type with a particular source of extra income.

6.055 Of 80 households, only 16 (20%) of the sample households except concrete types have an income from additional sources. Of these 16 households, 7 have extra income from the work of other family members, 4 of the total households i.e 2 of each katcha and of pucca type have extra earning from overtime at their place of work, 3 in all have an extra amount from part-time work and the last 2 households have extra earning from home activities. From the analysis of number of households having income from sources of extra earning, the author has learned that a very high proportion (80%) of the sample households of all types have no earning from extra sources. The analysis further shows that in all, 16 households having income from extra source, some 45% households belong to katcha type, some 25% belong to semipucca type, some 25% belong to pucca type and the remaining 5% households belong to juggi type houses. The households of katcha type have income from overtime, part-time and other members sources of extra earnings. Households of semipucca type have extra income from part-time and other members sources of extra earning, households of pucca type earn from overtime and home activities sources of extra earnings and households of juggi type have income from other members source of extra earning. From this we learn that the 'other members source of earning' is significant, and only households of pucca type have income from home activities source of extra earning.

This confirms that the family members of households of juggi, katcha and semipucca type work outside to support their heads, and the family members of pucca type household work at home to earn some extra amount to compensate for expenditures of family members.

Table 6.21 Households by Sources of Extra Earnings.

House Types	Number of Households by Source of Extra Earnings							Total
	None	Over-time	Part-time	Home activities	Agri-culture	Own business	Other members	
Juggi	1	-	-	-	-	-	1	2
Katcha	26	2	1	-	-	-	4	33
Semi	21	-	2	-	-	-	2	25
Pucca	14	2	-	2	-	-	-	18
Concrete	2	-	-	-	-	-	-	2
Total	64	4	3	2	0	0	7	80
(%)	(80)	(5.0)	(3.7)	(2.5)	(0.0)	(0.0)	(8.8)	(100)

6.056 The home activities includes work such as sewing, handicrafts and making quilts in their home. The other family members' source of extra earnings includes the wages of young children who work in small shops, in garages and at fuel stations; or the irregular income of housewives who work as ladies servants in the houses of the middle or high income groups in the city. A member of a poor family finds it convenient to follow the job of his father or head of his

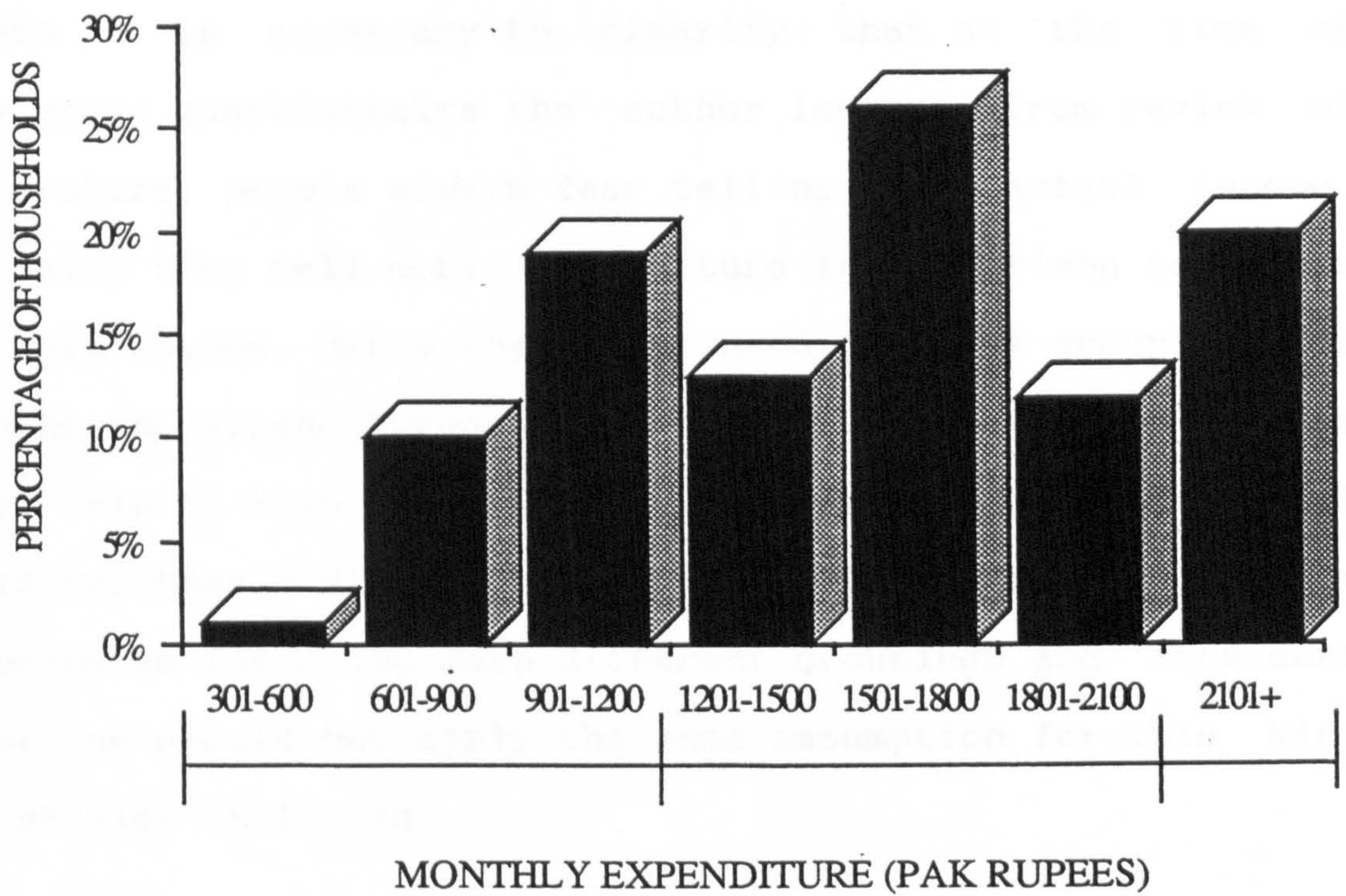
family. A tendency among the heads of family is to prepare their sons to be earning members at an early age depriving the child of an education, particularly in the cases where the household heads are old or unable to work and the young members have to support their families.

Table 6.22 Households by Monthly Expenditure of Family Members Living in Houses in Lyari Karachi.

House Types	Monthly Expenditures of Family in Pak Rupees.							
	1-300	301-600	601-900	901-1200	1201-1500	1501-1800	1801-2000	2001+
Juggi	-	-	-	1	-	1	-	-
Katcha	-	1	2	7	5	11	3	4
Semi	-	-	5	4	3	5	2	6
Pucca	-	-	1	3	2	3	4	5
Concrete	-	-	-	-	-	1	-	1
Total	0	1	8	15	10	21	9	16
(%)	(00.0)	(1.3)	(10.0)	(18.7)	(12.5)	(26.2)	(11.3)	(20.0)

6.057 The above Table 6.22 presents a range of various monthly expenditures of 80 households in Lyari Karachi in November 1988. From this Table it is clear that none of the households of all types have an expenditure of less than Pak rupees 300 per month. Of 80 households, 40 (50%) have an expenditure from Pak rupees 1201 to 2100 per month, 24 (30%) of the households have an expenditure between rupees 301 and

Figure 6.13 DISTRIBUTION OF SAMPLE HOUSEHOLD'S MONTHLY EXPENDITURES.
SIZE OF SAMPLE 80 HOUSEHOLDS, AREA 1, LYARI, KARACHI.



1200 per month and the remaining 16 (20%) households have a maximum expenditure i.e more than rupees 2100 per month.

Figure 6.13 shows that 10% of the sample households spend rupees 600 to 900 per month, 13% households have a monthly expenditure up to rupees 1500 and 38% of sample households spend rupees 1501 to 2100 per month.

6.058 It is necessary to clarify that at the time of designing questionnaire the author learned from review of literature, people always fear telling their actual income. Normally they tell more expenditure in comparison to their monthly income. Hence the author used different grouping for income and expenditures, and he assumed that these groups will help to know about the savings of households. In fact this hypothesis did not work completely. Hence the author appologies for using such different groupings and considers that one should not apply the same assumption for this kind of studies in future.

6.059 The results for monthly income and expenditures of the 80 household heads and their families in Lyari at the time of interview are shown in Table 6.23. This table shows that the three households having an irregular income (nil regular income) have an expenditure of 901-1200- 1500-1800 per month respectively; 11 households with earnings varying from rupees 401 to 800 a month have an expenditure from rupees 601 to 1800 rupees per month; and the two households having

an income from rupees 801 to 1600 per month have a family expenditure of more than 2100 rupees per month. The above analysis confirms that some 53 (66%) households spend all amount that they earn in a month, some 16 (20%) households have more expenditures as compared to their monthly income and the remaining (14%) households have less expenditures than their monthly income. This is really surprising that the households with lower income have a higher expenditure.

Table 6.23 Households by Monthly Incomes and Expenditures of Family Members in Lyari: A Comparison.

Monthly Earnings in Pak Rs	Monthly Expenditure in Pak Rupees.							
	1-300	301-600	601-900	901-1200	1201-1500	1501-1800	1801-2100	2100+
00.00	-	-	-	1*	1*	1*	-	-
1- 400	-	1	-	-	-	-	-	-
401- 800	-	-	6	4*	-	1*	-	-
801- 1200	-	-	2	9	4*	1*	-	1*
1201-1600	-	-	-	1+	5	13	-	1*
1601-2000	-	-	-	-	-	1	3	1*
2001 +	-	-	-	-	-	4+	6+	13
Total	0	1	8	15	10	21	9	16

*. indicates deficiency.

+. indicates surplus (savings).

6.060 It is understood that the heads having a lower income as compared to the monthly expenditure of the family have to offset the deficiency by different means. The people of Lyari compensate by utilizing the following sources: they borrow money from friends; relatives; neighbours; they take small loans from private enterprises; or use the 'bisi' system, the last being most commonly found in the low income population group. This shows higher degree of mutual understanding, trust, co-operation and a spirit of helping each other in hard times among the poor people of Lyari.

6.061 Statistics of income and expenditure of the population living in Lyari, give a clear picture of the economic standards of the area. The majority of the people living in Lyari belong to the 'hand to mouth' group of the poor. The number of dependent members in a family is higher than the number of earning members of a family. This indicates an imbalance of income and expenditure In Lyari.

Area 2 (KORANGI).

History and Growth of Study Area.

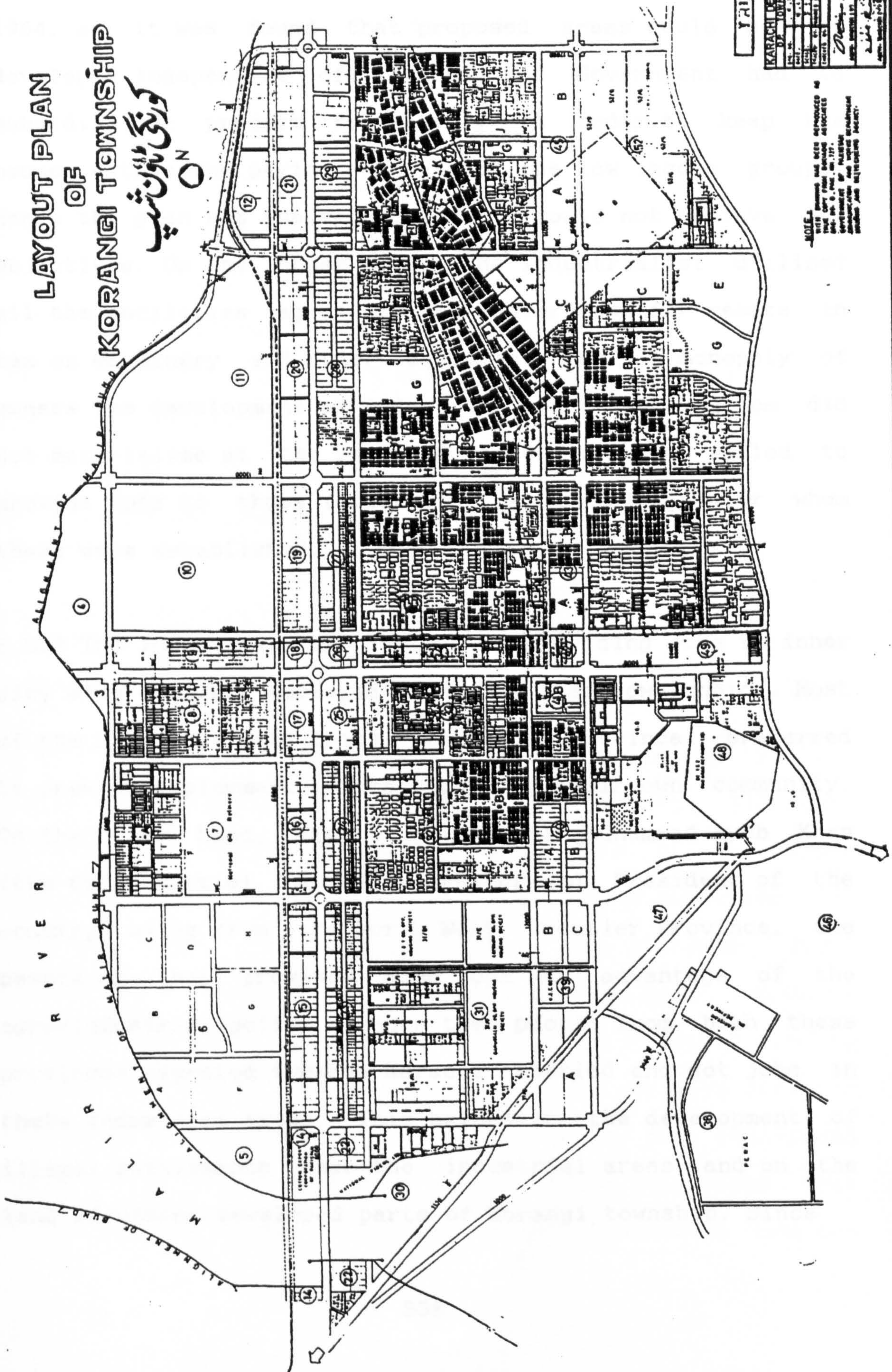
6.062 Korangi is a recently developed katchi abadi or younger slum, located on the south-east fringe of the city. As mentioned earlier in Chapter 4, in order to resolve the problem of housing in the city, the Government of Pakistan invited Doxiades Associates—a Greek firm—to plan and develop the low-income settlements. The Greek consultants prepared the Greater Karachi Resettlement Plan, which proposed development of two Satellite Towns: Korangi (see Figure 6.14) and New Karachi on the outskirts of the city. The development of the two proposed towns was initiated under phase 1 of the plan to accommodate slum dwellers from the central parts, in order to solve the problems of the urban poor and make the city neat and clean.

6.063 At the same time under agro-industrial policy, it was assumed that the establishment of industries in the vicinity of these townships would help in solving the problem of unemployment in the city, and in these areas in particular. It was expected that those so displaced from inner city slums would be provided with jobs and the townships could then exist independent of the city. In these townships people were offered a choice from three types of dwelling— one bedroom, one bedroom with verandah, or two bedrooms with verandah.

Figure 6.14 LAYOUT PLAN OF KORANGI TOWNSHIP: A FAILED PROJECT TRANSFORMED INTO A KATCHI ABADI

LAYOUT PLAN
OF
KORANGI TOWNSHIP

کورنگی ٹاؤن شپ



TRUE COPY

KARACHI DEVELOPMENT AUTHORITY	
DP-1074-1-1980-001	
DATE	10/10/80
SCALE	1:1000
PROJECT	KORANGI TOWNSHIP
DESIGNER	...
APPROVED	...

NOTE:
THIS DRAWING HAS BEEN APPROVED AS
A TRUE COPY FROM ORIGINAL DRAWING
NO. 1074-1-1980-001, DATED 10/10/80.
GOVERNMENT OF PUNJAB
DEPARTMENT OF PUNJAB
ISLAMABAD

6.064 The Resettlement Programme was however stopped in 1964, as it was found that proposed areas could not be developed independent of Karachi and Government had to subsidise the project too heavily in order to keep the houses within the paying capacity of the low income groups. Hence the plan was shelved because it could not achieve its objectives. On the other hand, the industrialist utilised all the facilities agreed by the government for rebate in tax on machinery and other equipment. Due to monopoly of owners the development of industries near the townships did not materialise at the required pace i.e. they failed to provide jobs to those (inner city slum dwellers) for whom these were established.

6.065 The industrialists, instead of providing jobs to inner city slum dwellers employed labour of their own choice. Most of the industrialists being from Punjab Province, preferred to provide employment to the labour of their own community. On the other hand, because of General Muhammad Ayob Khan (the Chief Martial Law Administrator and President of the country) being from the North West Frontier Province, the people of that province also took an advantage of the agro-industrial policy. Hence the people from both these provinces migrated towards Karachi, settled and got jobs in these industrial areas. This helped in the development of illegal settlements near the industrial areas and on the land adjoining developed parts of Korangi township. Since

then the process of migration and establishment of katchi abadis in Korangi has continued. (see tables 6.32-6.34 and a comparative analysis of migration in Chapter 7).

6.066 Undoubtedly Korangi is a place of multi-ethnic communities. Being an industrial and commercial area, it attracts newcomers to the city. The newcomers can easily find a piece of vacant land to build their cheap shelter or rented and shared accommodation along with low-waged temporary work in this area which encourage migrants to plan for their permanent settlement in the same area or elsewhere in the large city of Karachi. Presently, size of the plots occupied by the residents vary from 37 sq m to 55 sq m.

Physical Characteristics of Area 2.

House Types and Conditions.

6.067 The following table 6.24 represents horizontally, the number of households of each type having bedrooms, vertically it represents total households of all types having a particular number of bedrooms. Table shows that two houses (1 juggi + 1 pucca type) have five bedrooms. Juggi and concrete houses are the cheapest and the most expensive types of shelter respectively. Hence most households in katcha, semi-pucca and pucca types of dwelling have one, two and three bedrooms. Households in the katcha and semi-pucca type have one bedroom in most cases. Figure 6.15 shows that a considerable number 37 (46%) of sample households have one

bedroom, more than 35% of all types of households have two bedrooms, nearly 13% of total households have three bedrooms. Only 5% of the total sample have four and five bedrooms.

Table 6.24 House Types by Number of Bedrooms in Each.

House Types	Number of Bedrooms					Total
	One	Two	Three	Four	Five	
Juggi	1	2	0	0	1	4
Katcha	17	10	2	0	0	29
Semi Pucca	13	11	4	1	0	29
Pucca	6	6	2	1	1	16
Concrete	0	0	2	0	0	2
T o t a l	37	29	10	2	2	80
(%)	(46.3)	(36.2)	(12.5)	(2.5)	(2.5)	(100.0)

Figure 6.15 DISTRIBUTION OF SAMPLE HOUSEHOLDS BY NUMBER OF BEDROOMS

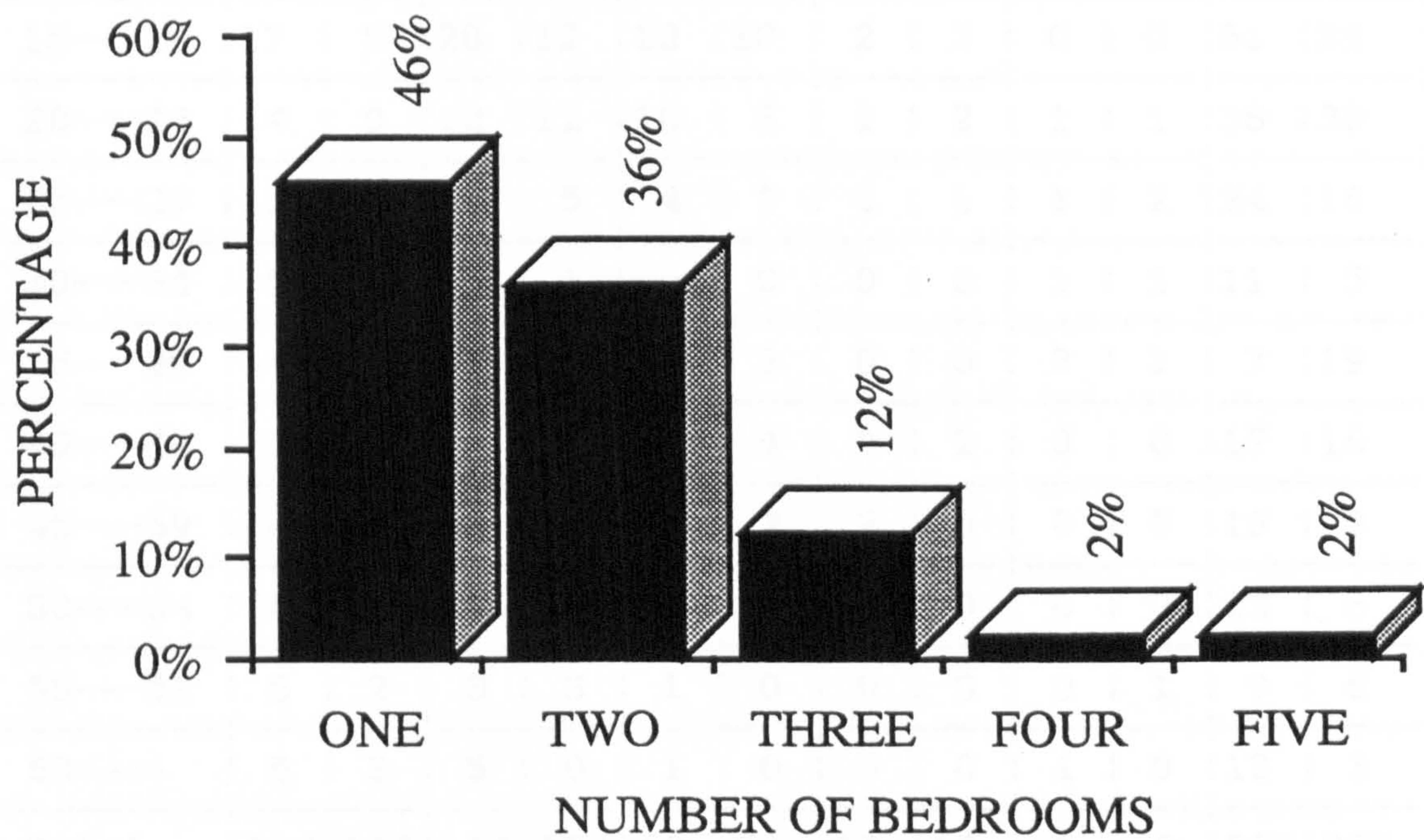


Table 6.25 Age, Sex Composition of Sample Population Living in Households by Number of Bedrooms in Korangi.

Age in Years	Persons Living in Dwellings by Number of Bedrooms and Sex in Korangi Karachi.											
	One		Two		Three		Four		Five		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
0---4	11	15	15	11	7	13	3	3	2	0	38	42
5---9	14	26	15	23	7	12	4	2	1	0	41	63
10---14	9	16	24	16	10	6	4	1	2	0	49	39
15---19	17	5	20	12	12	10	2	2	0	0	51	29
20---24	14	9	12	12	10	6	1	2	1	1	38	30
25---29	12	7	6	5	4	1	1	1	1	2	24	16
30---34	5	3	5	1	0	0	0	0	1	1	11	5
35---39	4	7	1	9	0	2	0	0	2	1	7	19
40---44	8	2	8	8	1	4	0	2	0	0	17	16
45---49	4	5	8	1	2	3	2	0	0	0	16	9
50---54	6	3	1	3	5	2	0	0	0	0	12	8
55---59	5	2	3	3	1	0	0	0	0	1	9	6
60---+	5	3	5	0	1	0	0	0	1	0	12	3
Total (M+F)	114	103	123	104	60	59	17	13	11	6	325	285
	(217)		(227)		(119)		(30)		(17)		(610)	

6.068 The Table 6.25 provides detailed information about age, sex distribution of the total population living in sample households by number of bedrooms in each in Korangi. The statistics presented in this table confirm that the total sample population of 610 live in 80 households in Korangi. The number of male members is higher by 40 than the

number of female members. Of this total more than 35.5% of persons live in one bedroomed dwellings, more than 50% in two or three bedroomed dwellings, and the remaining 8% in four or five bedroomed dwellings.

6.069 With the help of data shown in Table 6.24, the author has calculated that average family size in Study Area 2 is 7.6 persons per household, the average in each dwelling by number of bedrooms being 5.9 (one bedroom), 7.8 (two bedrooms), 11.9 (three bedrooms), 15.0 (four bedrooms) and 8.5 (five bedrooms). With the help of these statistics, the author further has calculated average family size per bedroom for each household. The average family size for each size of dwelling is 5.9 persons for one bedroomed houses, 3.9 (two), 3.9 (three), 3.8 (four) and 1.7 (five). The above statistics about family size confirm a high density or number of persons per bedroom in all the sample households with one to four bedrooms. Households with five bedrooms are not so overcrowded. This confirms the existence of problem of overcrowding or high density in Study Area 2 (Korangi).

6.070 Table 6.26 classifies a sample of 80 households with respect to the various facilities that each household had at the time of the visit to Area 2 (Korangi). This table shows that 48 (60%) of the sample have a kitchen facility within the house, 50% of houses of all types have a bathroom, 45% of the sample has a W.C and one-third (33%) of all households have open spaces attached to the property. This table

also shows that 70 houses or more than 85% of the sample do not have a place for storing things, 75 (95%) houses do not have a living room.

Table 6.26 Households Having Various Facilities.

House Types	Number of Houses Having Facilities						
	Kitchen	Bath room	Water closet	Open space	Store	Living room	Other
Juggi	2	1	0	3	1	0	0
Katcha	13	15	11	6	1	0	0
Semi	19	13	19	11	5	3	0
Pucca	12	9	4	6	2	2	0
Concrete	2	1	2	0	1	0	0
Total	48	39	36	26	10	5	0
(%)	(60.0)	(48.8)	(45.0)	(32.5)	(12.5)	(6.3)	(0.0)

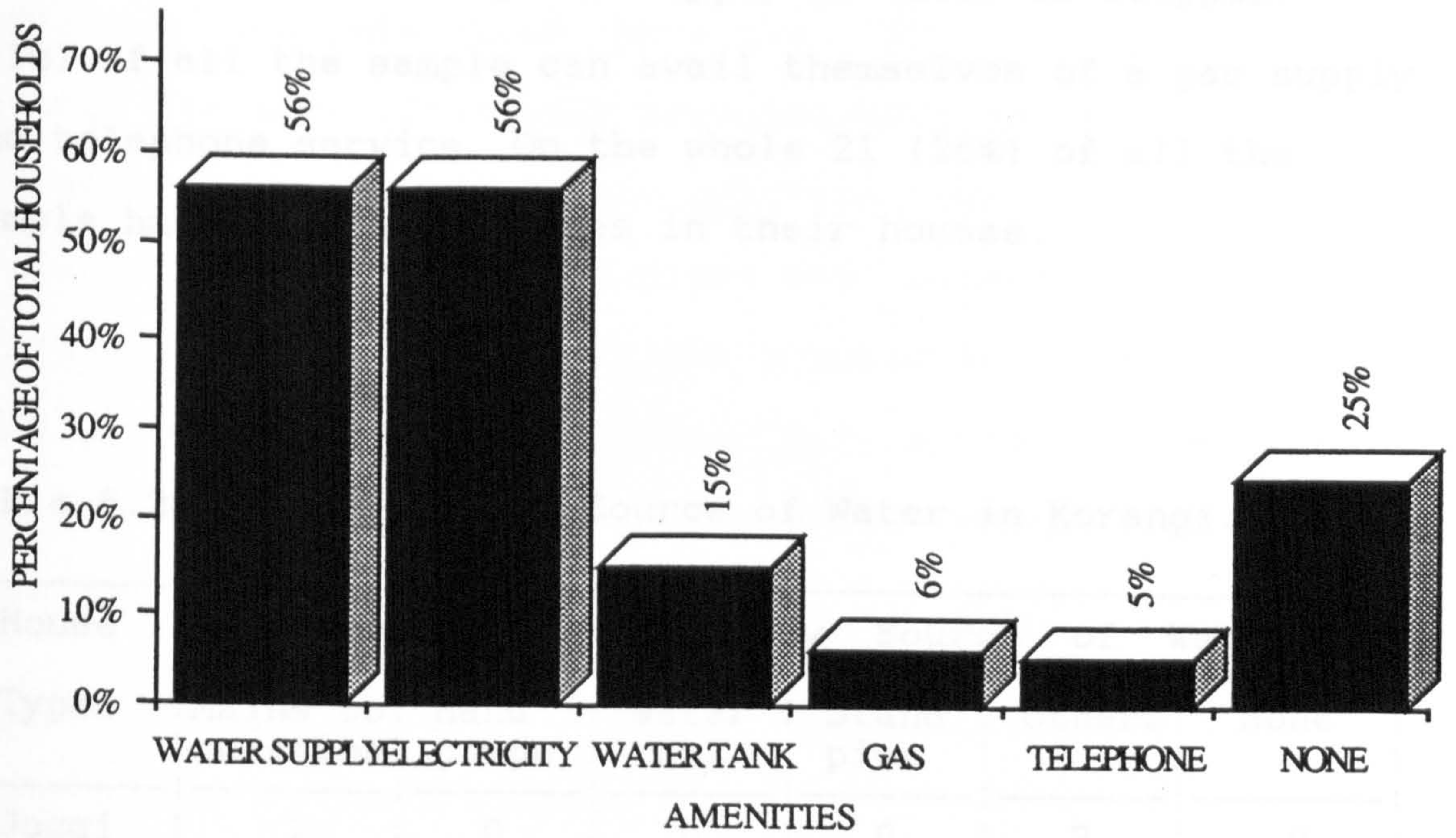
6.071 From the above statistics, it is clear that for each type of house the figures for facilities vary. The Number of households in semi pucca, pucca and concrete accommodation is greater than the number of juggi and katcha type houses having various facilities to the total number of each type of house. This means that a high proportion of semi pucca, pucca and concrete type houses have relatively many more facilities. The analysis demonstrates a clear relationship between the quality of house and the facilities e.g. A good-quality house contains a relatively wide range of facilities.

Table 6.27 Households Having Different Amenities.

House Types	Number of Houses Having Amenities						
	Water supply	Electr-icity	Water tank	Gas	Tele phone	Others	None
Juggi	1	0	0	0	0	0	3
Katcha	9	10	2	2	0	0	16
Semi	18	23	5	3	2	0	2
Pucca	15	10	3	0	1	0	0
Concrete	2	2	2	0	1	0	0
Total	45	45	12	5	4	00	21
(%)	(56.3)	(56.3)	(15.0)	(6.3)	(5.0)	(00.0)	(26.3)

6.072. Table 6.27 shows a statistical analysis of the amenities, the sample of 80 households have in Korangi. It gives two- types of information- (i) the houses of each type having different amenities, and (ii) the number of houses of all types with a particular amenity. For example this table shows that out of four juggi type houses, one has access to only a water supply and the remaining three houses have none of the amenities mentioned above. On the other hand 45 houses which includes juggi type houses have access to a supply of water.

Figure 6.16 DISTRIBUTION OF HOUSEHOLDS HAVING AMENITIES



6.073 Figure 6.16 gives the proportion of houses having different amenities. Of 80, (56%) of the sample have water and electricity connections in their houses. Of all the sample 15% have a tank in their house, they store water in it and use when the regular supply of water is stopped. (11%) of all the sample can avail themselves of a gas supply and telephone service. On the whole 21 (26%) of all the sample have got no amenities in their houses.

Table 6.28 Households by Source of Water in Korangi.

House Types	Number of Houses by Source of Water					
	Mains connection	Hand pumps	Water tank	Stand pipe	Others	None
Juggi	2	0	0	0	2	0
Katcha	13	3	2	2	9	0
Semi	9	4	5	3	8	0
Pucca	14	1	0	1	0	0
Concrete	2	0	0	0	0	0
Total	40	8	7	6	19	0
(%)	(50.0)	(10.0)	(8.7)	(7.5)	(23.8)	(0.0)

6.074 Table 6.28 provides information about sources by which the residents of Korangi obtain water for drinking or for other domestic purposes. This table and Figure 6.17 show

that most commonly (40 or 50% of all types) houses have got mains connection for water in their houses, 19 of all households get water from 'other' sources, only 10% have got a handpump in their house as a source of water. Of the 80, some 6 (7%) households enjoy a standpipe source of water.

6.075 The analysis shows more than 55% of the sample in Korangi had been officially provided with mains connections and standpipes. It is common practice that in the popular areas of the cities, standpipes are located at a common place where the majority of the population can gain access easily, but as this table shows, only a few (6) households of Area 2 benefit from this source of water. Reasons for this may be,

(i) a high proportion (50%) of households have got main connections in their houses;

(ii) the 10% have handpump a source of water inside house;

(iii) stand pipe provided by the authorities are located at a long distance where 24% of the interviewed households (who collect water from other sources) cannot gain access to this source of water.

Figure 6.17 DISTRIBUTION OF HOUSEHOLDS BY SOURCE OF WATER.
SIZE OF SAMPLE, 80 HOUSEHOLDS, AREA 2, KORANGI, KARACHI.

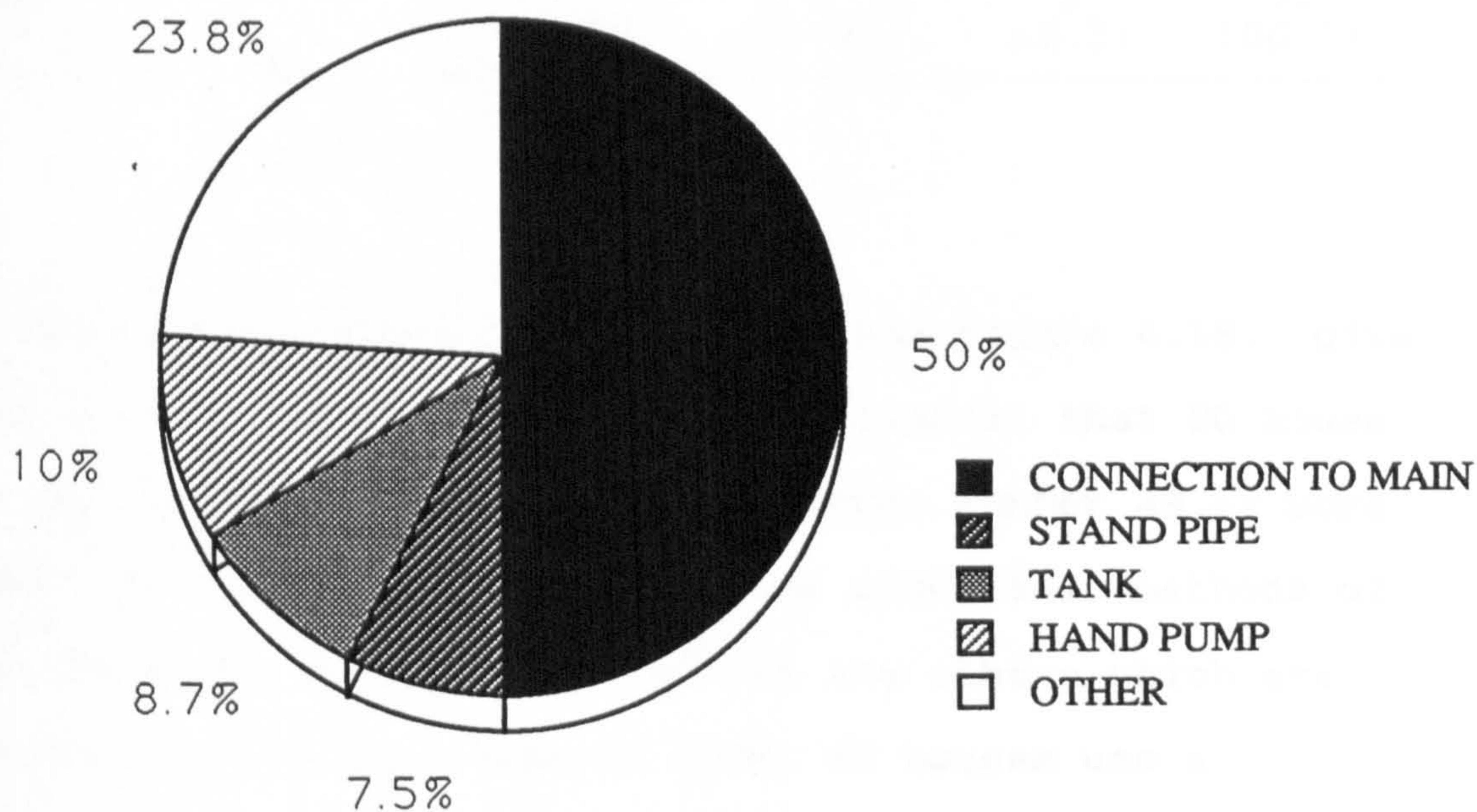
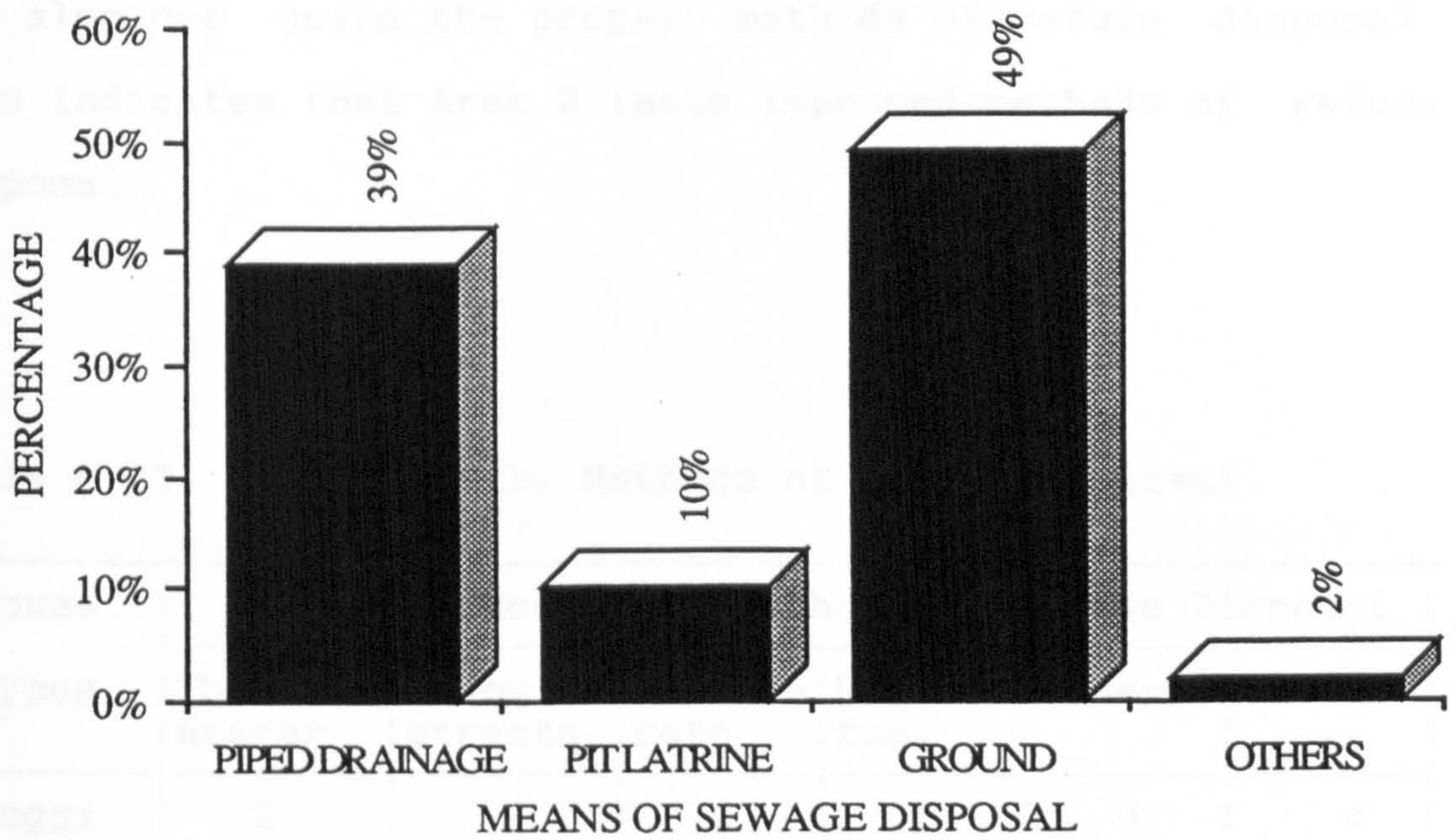


Table 6.29 Households by Different System of Sewage Disposal in Korangi Karachi.

House Types	Number of Houses by System of Disposal				
	Ground	Drainage	Pitlatrine	Others	Total
Juggi	4	0	0	0	4
Katcha	14	10	4	1	29
Semi	12	12	4	1	29
Pucca	9	7	0	0	16
Concrete	0	2	0	0	2
Total	39	31	8	2	80
(%)	(48.8)	(38.7)	(10.0)	(2.5)	(100.0)

6.076 Statistics shown in Table 6.29 and Figure 6.18, give an analysis of the systems of sewage disposal that 80 households use in Area 2. Residents of a large number 49 or more than 60% of the sample households use unhygienic methods of sewage disposal- ground, pit latrine and others which are generally open to sky. Some 31 (39%) of houses use a drainage system. From these statistics it is clear that not only the households of juggi use unhygienic methods but 35 households of katcha, semi puca and pucca type accommodation also use this source of sewage disposal, which means the methods need improvement measures.

Figure 6.18 CLASSIFICATION OF INTERVIEWED 80 HOUSEHOLDS BY MEANS OF SEWAGE DISPOSAL



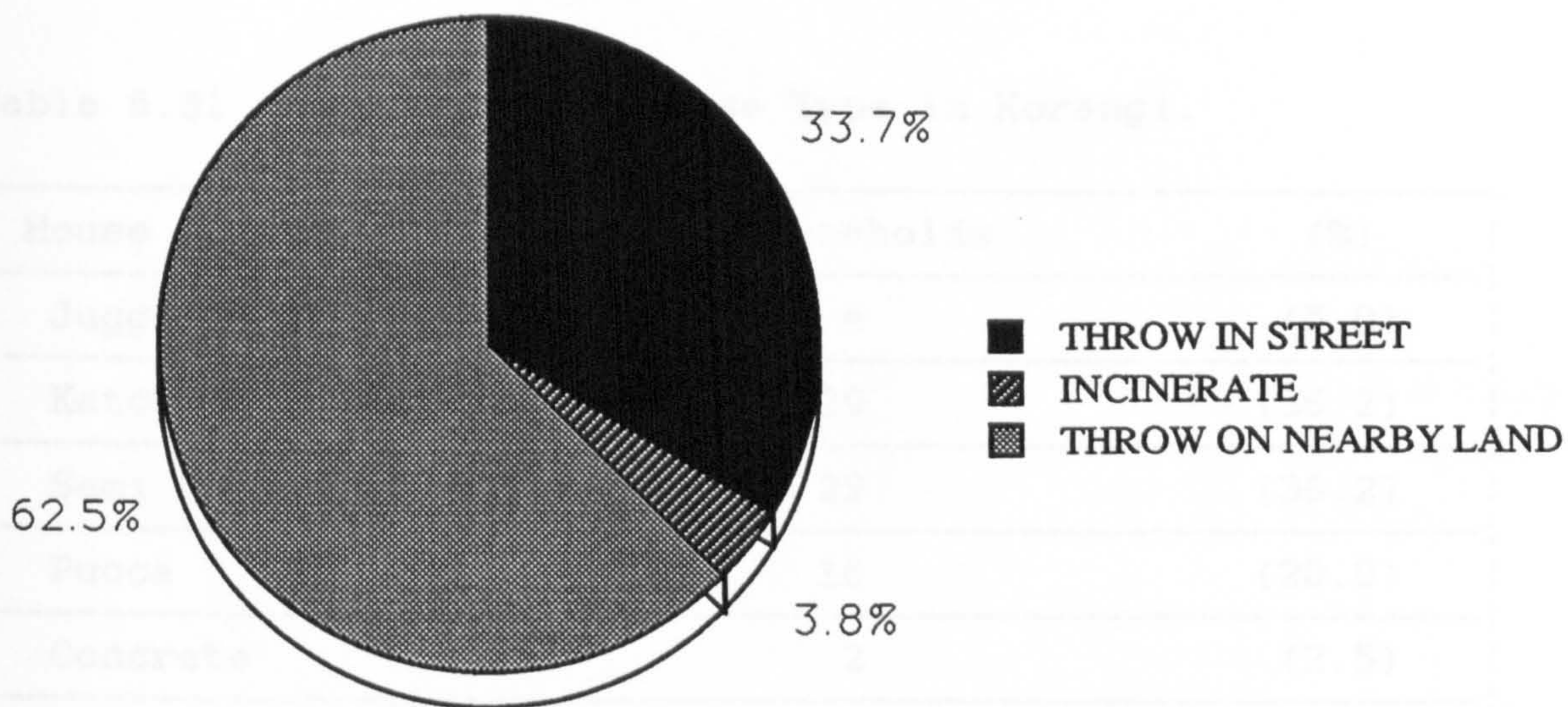
Juggi	2	0	0	0	0	0
Katcha	10	13	1	0	0	24
Demu	20	7	3	0	0	30
Pucca	11	5	0	0	0	16
Concrete	1	1	0	0	0	2
Total	50	27	3	0	0	80
(%)	(62.5)	(33.7)	(3.8)	(0.6)	(0.0)	(100.0)

6.077 Table 6.30 shows that the people living in Korangi, use three methods of refuse disposal. A large proportion of the sample (62.5%) throw collected refuse at nearer source of disposal, residents of 27 households or 33.7% throw it in the streets. Only 3 or 3.8% of sample households incinerate refuse. From this table and Figure 6.19 it is clear that the householders of semipucca, pucca and of concrete type houses are also not using the proper methods of refuse disposal. This indicates that Area 2 lacks improved methods of refuse disposal.

Table 6.30 Households by Methods of Refuse Disposal.

House Types	Number of Houses by Methods of Refuse Disposal					Total
	Throw at nearer	Throw in streets	Incine- rate	Use as fuel	Others	
Juggi	2	2	0	0	0	4
Katcha	16	12	1	0	0	29
Semi	20	7	2	0	0	29
Pucca	11	5	0	0	0	16
Concrete	1	1	0	0	0	2
Total	50	27	3	0	0	80
(%)	(62.5)	(33.7)	(3.8)	(0.0)	(0.0)	(100.0)

Figure 6.19 HOUSEHOLDS USING VARIOUS METHODS OF REFUSE DISPOSAL



SOURCE: DERIVED FROM TABLE 5.29

Social Characteristics of Area 2.

Status of Occupancy and Migration.

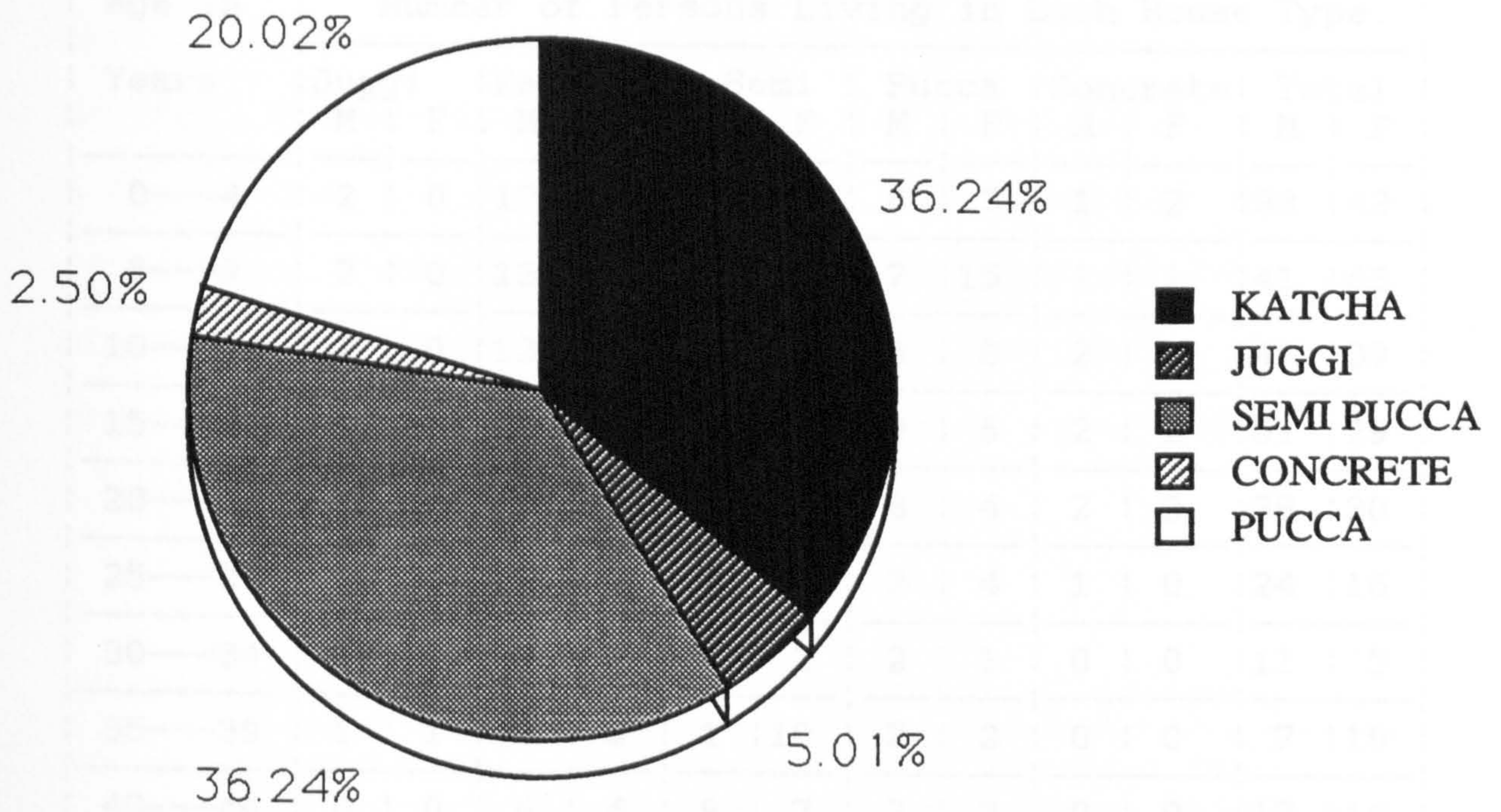
6.078 Table 6.31 classifies the total sample of 80 households in Korangi by type of house occupied. This table and Figure 6.20 show that 58 (72%) of households live in katcha or semi-pucca houses, 20% live in pucca dwellings and 7.5% live in juggi or concrete houses.

Table 6.31 Households by House Type in Korangi.

House Types	Number of Households	(%)
Juggi	4	(5.0)
Katcha	29	(36.2)
Semi Pucca	29	(36.2)
Pucca	16	(20.0)
Concrete	2	(2.5)
T o t a l	80	(100.0)

6.079 Table 6.32 provides detailed information about the total 610 population living in 80 households by type of houses forming a sample in Korangi. This table shows statistical analysis of total sample population of both male and female sexes of age between 0 and 60 + years living in all households by type of dwelling. The statistics about

Figure 6.20 DISTRIBUTION OF SELECTED HEADS OF 80 HOUSEHOLDS BY THE TYPES OF HOUSEHOLD



age, sex and number of population living in households of particular type confirm that of the total 610 population, a high proportion (91%) of sample live in katcha, semipucca or pucca type houses.

Table 6.32 Age, Sex Composition of population Living in Sample Households by Type of Dwelling in Korangi.

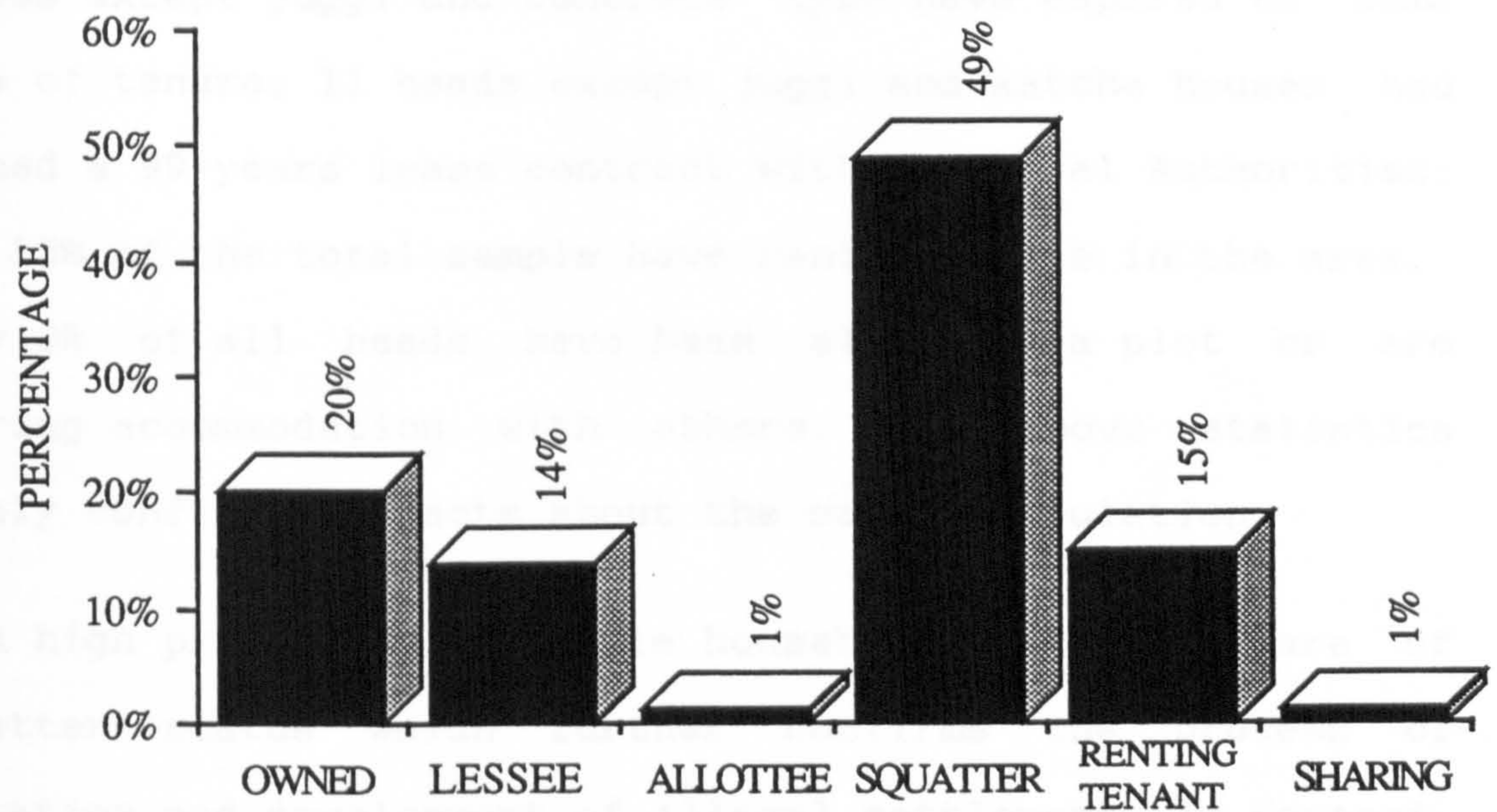
Age in Years	Number of Persons Living in Each House Type.											
	Juggi		Katcha		Semi		Pucca		Concrete		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
0---4	2	0	17	25	12	12	6	3	1	2	38	42
5---9	2	0	13	23	18	24	7	15	1	1	41	63
10---14	2	0	12	13	23	17	10	8	2	1	49	39
15---19	1	1	16	8	23	12	9	6	2	2	51	29
20---24	5	2	10	8	13	14	8	4	2	2	38	30
25---29	3	1	13	5	4	6	3	4	1	0	24	16
30---34	1	1	3	1	5	2	2	1	0	0	11	5
35---39	1	1	3	6	1	10	2	2	0	0	7	19
40---44	0	0	6	6	9	7	2	3	0	0	17	16
45---49	0	0	5	1	7	2	4	4	0	2	16	9
50---54	0	0	3	3	4	2	3	3	2	0	12	8
55---59	1	3	4	1	2	0	2	2	0	0	9	6
60---+	3	1	3	0	2	1	4	1	0	0	12	3
Total (M + F)	21	10	108	100	123	109	62	56	11	10	325	285
	(31)		(208)		(232)		(118)		(21)		(610)	

6.080 With the help of data about households by house type shown in Table 6.31 the author has calculated the average family size per household for the houses of all types. The average family size in Korangi is 7.6 persons per household, the average in each type dwelling being respectively 7.8 (juggi), 7.0 (katcha), 8.0 (semipucca), 7.4 (pucca), and 10.5 (concrete). With the help of statistics about the number of bedrooms in each household by type of dwelling shown in Table 6.24, the author further has calculated the number of persons per bedroom for each dwelling type in Korangi. The average occupancy is 3.8 (overall), 3.0 (juggi) 4.8 (katcha), 4.5 (semipucca), 3.5 (pucca), and 3.5 (concrete). This shows a high occupancy rate per bedroom in houses of all types. The above statistics confirm that the problem of overcrowding and high density in Korangi is not confined to particular types of structure.

Table 6.33 Heads of Households by Status of Occupancy.

Dwelling Type	Number of Heads by Tenure Status								Total
	Own er	Lease hold	Allot plot	Allot house	Squat ter	Tena nt	Shar ing	Oth er	
Juggi	0	0	0	0	4	0	0	0	4
Katcha	2	0	0	0	20	6	1	0	29
Semi	8	6	1	0	10	4	0	0	29
Pucca	6	4	0	0	5	1	0	0	16
Concrete	0	1	0	0	0	1	0	0	2
Total	16	11	1	0	39	12	1	0	80
(%)	(20)	(13.7)	(1.3)	(0.0)	(48.7)	(15.0)	(1.3)	(0.0)	(100)

Figure 6.21 DISTRIBUTION OF SAMPLED HOUSEHOLDS BY TENURE STATUS



SIZE OF SAMPLE= 80 HOUSEHOLDS. AREA 2

6.081 Table 6.33 and figure 6.21 represent the occupancy status of the heads of sample households living in Korangi. It is clear from the statistics shown in the Table that 39 household heads (49%) had squatted on a vacant piece of land, and have at present squatter status; 16 heads of houses except juggi and concrete type have aspired to some type of tenure; 11 heads except juggi and katcha houses had signed a 99-years lease contract with the Local Authorities; and 15% of the total sample have rented houses in the area. Only 3% of all heads have been allotted a plot or are sharing accommodation with others. The above statistics mainly confirm two facts about the sample population.

1) A high proportion of sample household heads (49%) are of squatter status which further confirms the process of migration and development of illegal settlements in Korangi.

2) A very low proportion of the total interviewed heads (1.3%) presently live in those houses which were allotted to them under Phase 1 of the Greater Karachi Resettlement Plan. This low proportion (1.3%) of allotted plots occupied by sample population confirms the failure of the Resettlement Plan, and also the transformation of developed parts of Korangi into slum areas. (described in Chapter 4 and earlier in this Chapter).

6.082 The development process of such settlements is of crucial interest. Two types of status- owner and squatter are significant in Korangi. Which means the owner of houses

have either purchased land from speculators or have leased on a long-term agreement (99 years). In the case of squatter status, it is assumed that the squatters might have received some kind of support (encouragement) directly or indirectly from different responsible sources- officials, politicians or speculator organisations.

Table 6.34 Heads of Household by Place of Origin.

Place of Origin	Number of Heads	(%)
Other Provinces	28	(35.0)
Other City of Sindh	17	(21.2)
India	12	(15.0)
Bangaladesh	1	(1.3)
Non migrants/indigenous	22	(27.5)
T o t a l	80	(100.0)

6.083 The statistics about the heads of sample households and the place of origin of those who had migrated and settled in Korangi are shown in Table 6.34. Only 22 heads (i.e about 28% of sample heads) were native to Karachi. More than 20% belong to the villages, towns and cities of Sindh Province. A high proportion (35%) of migrants originate from other parts of Pakistan, and 16% are International Refugees. Table 6.34 confirms that 72% of the sample population living in Korangi slums are migrants, and of this about half had

migrated from the other Provinces of Pakistan. A high proportion (36%) of immigrants settled in this area confirm the negative impact of the implementation of agro-industrial policies i.e development of industries in the proposed town of Korangi (described in Chapter 4 and in this Chapter).

6.084 To obtain more information about the process of settlement in Korangi, heads of household were asked about their first place of residence in Karachi. The information gathered is shown in Table 6.35. The analysis shows that 37 heads have been living in the same area from the very beginning, while 42 (53%) heads were living in a area close by the place of their present residence or in other parts of the city. Only one head who was living elsewhere and had moved to this area said that he initially migrated from India to the Punjab and then from Punjab Province he migrated to his present living place.

6.085 Table 6.34 and Table 6.35 give the actual number of migrants who had come directly to Korangi from the place of their origin. This number could be calculated in two ways:

Heads directly settled in Korangi =

(1) Heads living in same area - Nonmigrants, (37 - 22 = 15).

(2) Migrated heads-Heads living in other places, (58-43=15).

Table 6.35 Heads of Households by Residence Before Moving to Present Residence in Korangi Karachi January 1989.

Name of Place	Number of Heads Living in	(%)
Same Area	37	(46.2)
Another Part	25	(31.3)
Close by Area	17	(21.2)
Elsewhere (Punjab)	1	(1.3)
T o t a l	80	(100.0)

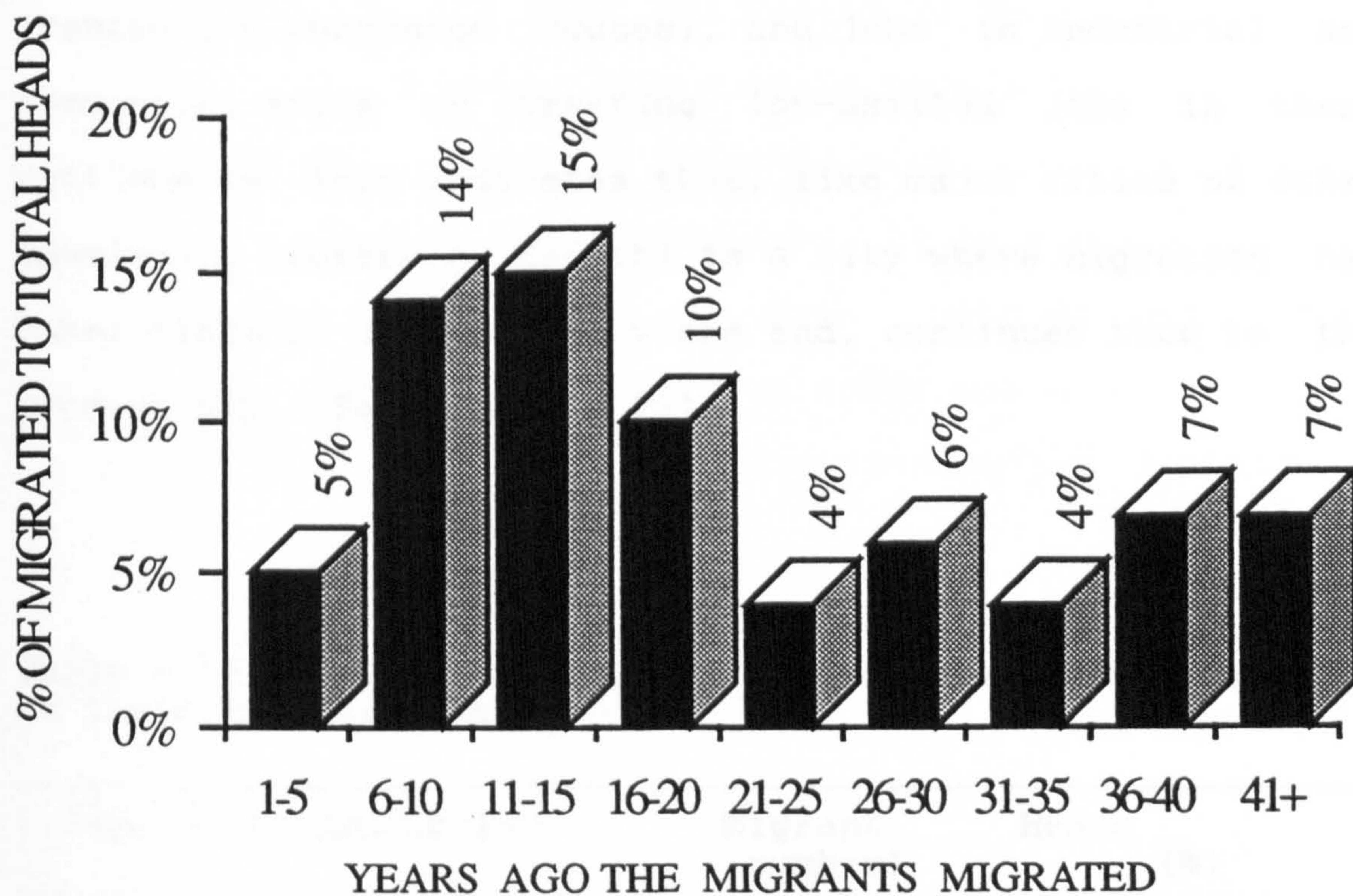
Table 6.36 Migrants Living in Korangi by Period of Migration from Place of Origin to Karachi.

Period of Migration in Years	Number of Migrants	(%)
1 to 5	4	(5.0)
6 to 10	11	(13.8)
11 to 15	12	(15.0)
16 to 20	8	(10.0)
21 to 25	3	(3.7)
26 to 30	5	(6.3)
31 to 35	3	(3.7)
36 to 40	6	(7.5)
More Than 40	6	(7.5)
Total Migrants	58	(72.5)
Indigenous	22	(27.5)

6.086 Table 6.36 demonstrates the relationship between migrants and period (in years) since they migrated from their place of origin to Karachi City. This table shows that migration has occurred in almost every period- 23 had migrated 6-15 years ago, 16 had migrated between 16 and 30 years ago, 15 had migrated more than 31 years ago to the City. The remaining 4 migrants had migrated recently i.e 1-5 years ago. The migration towards Korangi is continued mainly because:

- 1) A high proportion of migrants live in this area.
- 2) These migrants have squatted and built their own houses on vacant land.
- 3) Some of these migrants have either rented or have purchased houses in this area.
- 4) Korangi is an industrial area where the newcomers can easily find low waged, temporary jobs in industries.
- 5) Most of settled migrants belong either to other parts of Sindh Province or other Provinces of the country.
- 6) Relatives and friends living in Korangi but originating from same home area facilitate their establishment in Korangi.

Figure 6.22 DISTRIBUTION OF MIGRANTS BY PERIOD OF ARRIVAL IN KARACHI



6.087 It is a common practice in newly established settlements, particularly in Korangi Karachi, that the settled migrants always invite their relatives, friends or co-villagers from the place of their origin. They help them in building new cheap houses or getting accommodation (rented and purchased houses), and jobs in industrial and commercial areas or creating low-skilled jobs in these settlements. This indicates that, like major cities of other Developing countries, Karachi is a city where migration has taken place in the last 44 years and, continues thus to the present day. (See Figure 6.22)

Table 6.37 Migrant Heads by How Accommodation Has Procured on Their Arrival in Karachi.

Type of Accommodation	Migrant (number)	Heads (%)
Rented a House	24	(41.3)
Squatted on public land	19	(33.0)
Stayed with relatives	5	(8.6)
Other (camps)	4	(6.8)
Shared with Friends	3	(3.7)
Purchased Own House	3	(3.7)
T o t a l	58	(100.0)

6.088 As explained earlier in Table 6.12, the migrants arranged their initial accommodation by different methods on their arrival in the city. Table 6.37 gives a statistical analysis of different types of accommodation that migrated heads had procured in Karachi before moving to Korangi. Of 58 migrated heads, 24 (41%) had rented houses, and 19 heads had squatted in Karachi. Only 4 heads were placed in a camp and 11 migrants initially stayed with their relatives, friends or purchased their own house. It is assumed that the migrants who rented houses in cheap types of settlement, might have brought some money from their place of origin, and those who came with nil or low income had squatted in the city.

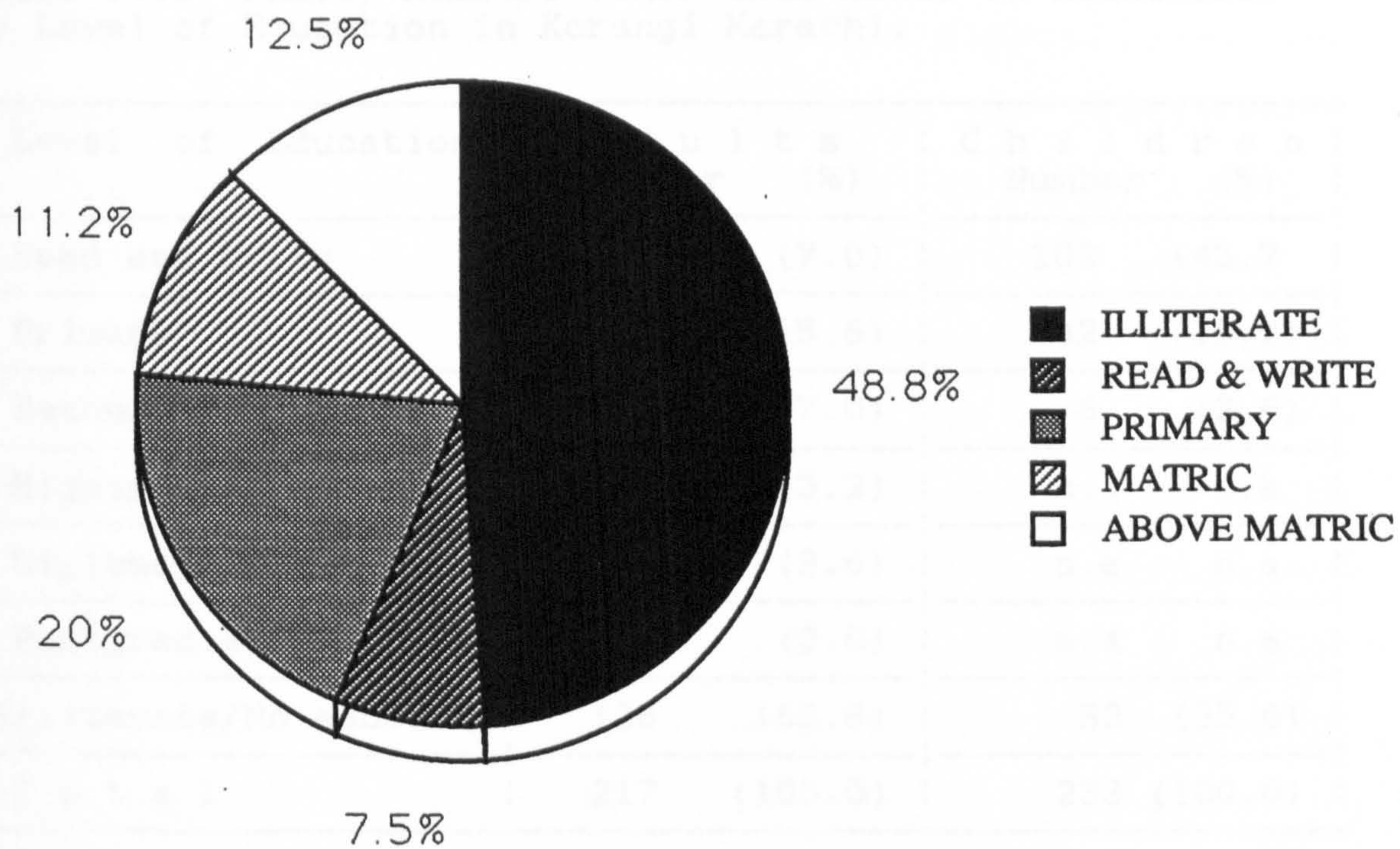
Table 6.38 Heads of Households by Level of Education in Korangi.

Level of Education	Number of Heads	(%)
Read and Write	6	(7.5)
Primary	16	(20.0)
Secondary	9	(11.2)
Higher Secondary	5	(6.2)
Diploma/degree	3	(3.7)
Postgraduate	2	(2.6)
Illiterate/No education	39	(48.8)
T o t a l	80	(100.0)

6.089 Table 6.38 provides a statistical analysis of the level of education that the heads of 80 households possessed at the time of interview in Korangi. It shows that of 80 household heads, 39 are illiterate, Some 6 of the educated can simply read and write, 10 heads have had an educational level above that of secondary and 5 of them are reported to be graduates. Figure 6.23 shows that a little less than 50% of total sample are uneducated, 44% of heads have formal education and only 7% have informal education.

6.090 The statistics about the level of education which heads of sample households possessed at the time of interview in Lyari and Korangi, presented in the Tables 6.15 and 6.38, confirm a difference of 5 or (6%) between the number of uneducated heads of households. But the statistics about heads having informal (read and write) and formal (primary to postgraduate) levels of education confirm a significant difference in the number of heads in both areas. This is because of significant difference between migrants and non-migrants in both areas. Study Area 1 (Lyari) accommodates 76% indigenous heads; whereas Area 2 (Korangi) accommodates 72% migrant heads of the total sample household heads. The data about migrants, their place of origin and process of settlement (period of migration) in Korangi is summarised within the explanation of Table 6.36. (Reasons for migration and settlement in Korangi).

Figure 6.23 EDUCATION LEVEL OF HEADS OF HOUSEHOLD OF 80 HOUSEHOLDS IN AREA 2, KORANGI, KARACHI.



6.091 Considering the reasons, particularly 1 and 5, it is assumed that the migrants presently settled in Korangi have received basic education in their place of origin i.e India, Bangladesh and other Provinces of the country, before migrating to the present place of residence; whereas a high proportion of residents in Lyari are settled there since their forefathers.

Table 6.39 Family Members Other than Heads of Households by Level of Education in Korangi Karachi.

Level of Education	A d u l t s		C h i l d r e n	
	Number	(%)	Number	(%)
Read and Write	15	(7.0)	102	(43.7)
Primary	34	(15.6)	42	(18.1)
Secondary	15	(7.0)	6	(2.6)
Higher Secondary	7	(3.2)	n.a	n.a
Diploma/Degree	8	(3.6)	n.a	n.a
Postgraduate	0	(0.0)	n.a	n.a
Illiterate/No education	138	(63.6)	83	(35.6)
T o t a l	217	(100.0)	233	(100.0)

6.092 From table 6.39, we know about the level of education of the adult members and of the children presently living with household heads in 80 houses of Area 2. This table shows:

1. Total number of adults except heads of households,

2. Total number of children for both sexes excluding children of age 0-4 years because they are under school age.
3. Number and % of adults and children possessing that level of education.

6.093 The left column of Table 6.39 shows that of 217 adult members of both sexes, 63% have had no education and are illiterate, 64 or 30% had a formal education and 7% of adults have had an informal education. Of 30% with a formal education, about 7% possess higher and diploma level of education and none of them had qualified for postgraduate degrees. The other part of this table gives information about the level of education that sample children possess in Korangi. A total of 233 children are recorded as attending schools. Of that, 102 children (43%), can only read and write, 21% possess primary and secondary level of education, whereas the remaining 83, or more than 35% are uneducated. A higher proportion (63%) of sample adult members and some 35% of young school age children being illiterate shows lack of educational (institutions) facilities and unawareness of the importance of education in the slums of Korangi Karachi.

6.094 A comparative study of level of education that adult and children possessed at the time of interview in both Study Areas does not show any significant difference between the number of both categories having various levels of education. A further comparison of levels of education that

the heads, adults and children possessed in Korangi confirm the facts about educational qualifications of heads, they have acquired in the place of their origin and lack of educational facilities in the place of their origin.

Economic Characteristics of Area 2.

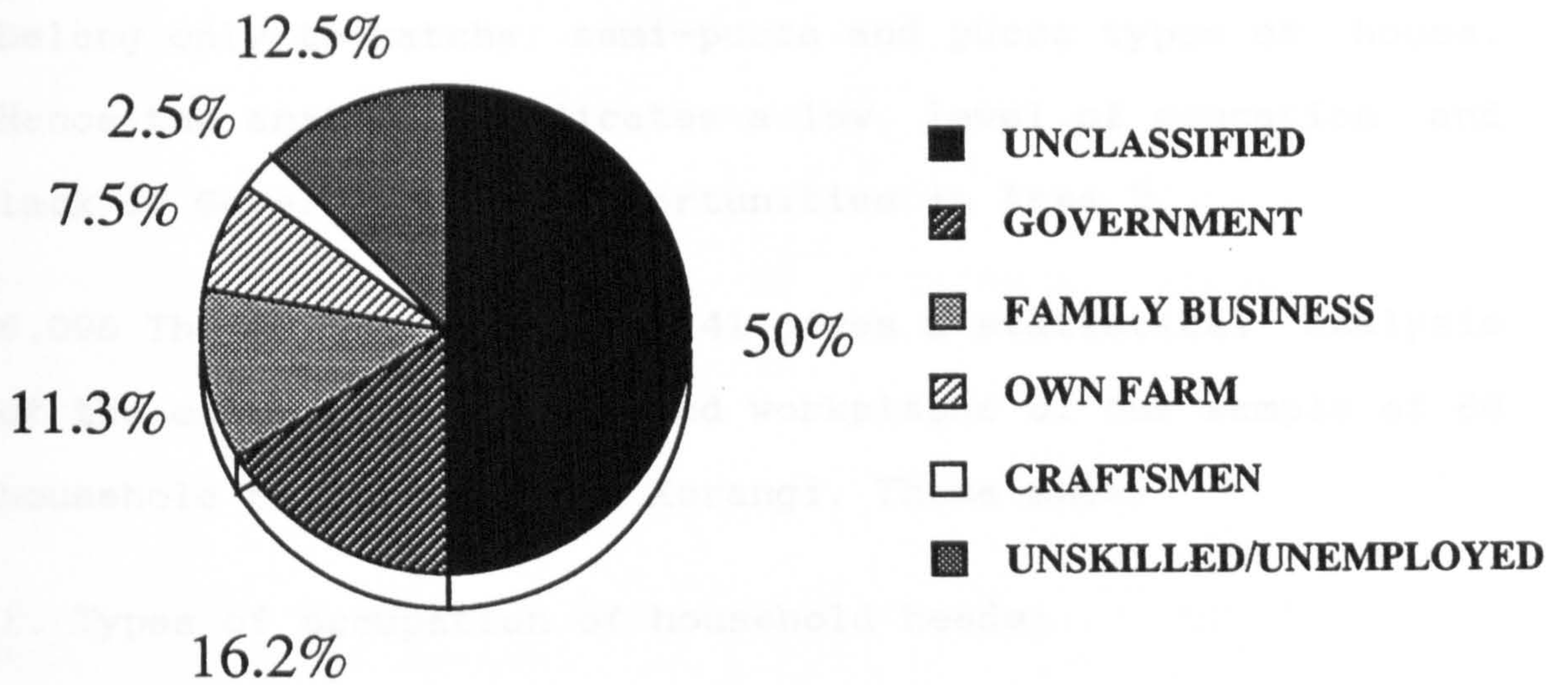
Occupation Profile.

Table 6.40 Classification of Heads of Households by House Types and Occupation in Korangi Karachi.

House Types	Number of Heads Engaged in Particular Occupation						Total
	Gover- nment	Unclas- sified	Family Busines	Crafts man	Own Farm	Unemp- loyed	
Juggi	0	2	1	0	0	1	4
Katcha	5	15	2	1	0	6	29
Semi	6	14	5	1	1	2	29
Pucca	2	7	1	0	5	1	16
Concrete	0	2	0	0	0	0	2
Total	13	40	9	2	6	10	80
(%)	(16.2)	(50.0)	(11.3)	(2.5)	(7.5)	(12.5)	(100.0)

6.095 Findings of occupational distribution and of the heads of sample households in Area 2 are shown in Table 6.40 and Figure 6.24. A statistical analysis of the occupational profile of heads reveals that a high number (40) of heads, or 50% of the sample, are engaged in unclassified work. The number of heads working in the capacity of managerial,

Figure 6.24 OCCUPATION PROFILE OF SAMPLE HEADS OF HOUSEHOLDS



administrative, professional, and clerical status within Government Departments is only 13 (16%) of all interviewed heads, heads having no job comprise 12.5% of sample and the remaining 17 heads have their own business, own farm or are technicians, mechanics, craftsmen or masons. An analysis of occupations shows that a high proportion of heads of all type of houses are working privately, whereas a low percentage of heads who are employed in Government jobs belong only to katcha, semi-pucca and pucca types of house. Hence the analysis indicates a low level of education and lack of Government job opportunities in Area 2.

6.096 The following Table 6.41 gives a statistical analysis of the occupational types and workplaces of our sample of 80 household heads living in Korangi. These show:

1. Types of occupation of household heads;
2. Number of heads of each house type engaged in each type of occupation;
3. Number of heads in particular types of occupation; and
4. Place where all these heads go to work.

6.097 Of 80 heads of household, 10 (12.5%) are unemployed and so they do not have any workplace. The two major occupational types are unclassified (40) and own business or farm (15), employing between them 69% of all heads (87% of all heads in employment). More than half 47 (59%) of

household heads, work either locally or close by. Of the heads of household forming the sample a little less than one-third (29%) work either in the centre or in other parts of the city. Of 13 heads, those working in Government jobs (9), have to go to other parts of the city for their work. Those working as craftsmen, or in farms and family business (17) of all employed heads, have workplaces focused strongly in their local area or close by. Table 6.41 clearly shows that half of the sample are employed in private jobs where little or no education is necessary, very few (13) of sample heads are employed in Government jobs, and (75%) of them, work far from their place of residence. Hence Area 2 exhibits poor economic standards.

Table 6.41 Heads of Households by Occupation and Place of Work in Korangi Karachi.

Types of Occupation	Number of Heads by Place of Work					Total
	Same Area	Close by Area	City centre	Other Part	No where	
Government	1	2	1	9	0	13
Unclassified	13	15	2	10	0	40
Family Business	8	1	0	0	0	9
Craftsmen	1	0	0	1	0	2
Own Farm	4	2	0	0	0	6
Unemployed	0	0	0	0	10	10
T o t a l	27	20	3	20	10	80
(%)	(34)	(25)	(4)	(25)	(12)	(100)

6.098 The following Table 6.42 provides an analysis of 80 household heads and of the mode of journey which these heads use to and from their workplace in Korangi. Thirty five heads or 44% of the sample use their feet as a mode of travel to their workplaces. The other major mode used by 19 (24%) of heads to workplaces is public transport. The other 7 heads working close by or in other parts of the city use a motorised mode of travel: car, taxi or motorcycle. The heads working close by and in the centre of the city ride on bicycles to their workplaces and only 4 heads who are employed close by, and in other parts of the city use a company bus facility. From these figures it is clear that more than 50% of heads walk or use bicycles- cheap modes of travel, 24% have first to travel by private transport, even then they can only get public transport on the main roads of the area. At the time of ethnic riots, private transporters stop services, people come out on the roads and they burn public (Government) buses. Which results in a great shortage of public transport for the future.

Table 6.42 Heads of Households by the Mode of Journey to and From Their Workplaces.

Mode of Journey	Number of Heads by Mode of Travel						Total	(%)
	Same Area	Close By	City centre	Other Part	No where			
Foot	26	9	0	0	0	35	(43.7)	
Public Trans	0	4	2	13	0	19	(23.8)	
Taxi/Car/Auto	0	3	0	4	0	7	(8.7)	
Bicycle	1	3	1	0	0	5	(6.3)	
Company Bus	0	1	0	3	0	4	(5.0)	
None	0	0	0	0	10	10	(12.5)	
T o t a l	27	20	3	20	0	80	(100)	
(%)	(34)	(25)	(4)	(25)	(10)	(100)		

Table 6.43 Households by Monthly Incomes of Family Members Living in Korangi Karachi.

House Types	Number of Households by Monthly Earning in Rupees							Total
	00	1-400	401-800	801-1200	1201-1600	1601-2000	2001-+	
Juggi	0	0	1	0	1	0	2	4
Katcha	1	0	7	9	3	4	5	29
Semi	0	0	0	6	7	9	7	29
Pucca	0	0	1	2	2	2	9	16
Concrete	0	0	0	0	0	0	2	2
Total	1	0	9	17	13	15	25	80
(%)	(1.3)	(0.0)	(11.2)	(21.2)	(16.3)	(18.7)	(31.3)	(100.0)

6.099 The statistical analysis of data about the regular income of 80 household heads forming a sample in Area 2 is shown in Table 6.43. This table gives the number of households having income within the particular category of regular monthly income. The table broadly classifies a sample of households in four major income categories: those who have nil income from any permanent source of income; the households having income less than rupees 1200 a month; the households which have income of more than rupees 1200 but less than rupees 2000 per month and; those of the sample households who earn more than rupees 2000 per month.

6.100 Of 80 households, 54 (68%) of the sample have a regular income of less than rupees 2000 per month, 25 or 31% of all households have a monthly income more than rupees 2000 and the remaining 1 household has nil income in a month. There is very little difference (2) in the number of households, having a monthly income of rupees 1200 and more than rupees 1200 but less than rupees 2000. (See Figure 6.25) The table 6.43 also provides an analysis of the income of houses of a particular type. For example two households of the concrete type have an income of rupees more than 2000 per month, one household of the juggi type has an income up to rupees 800 and the other has an income of less than rupees 1600 per month.

Figure 6.25 HOUSEHOLDS BY MONTHLY INCOME OF FAMILY MEMBERS IN AREA 2, KORANGI, KARACHI.

SAMPLE SIZE = 80 HOUSEHOLDS

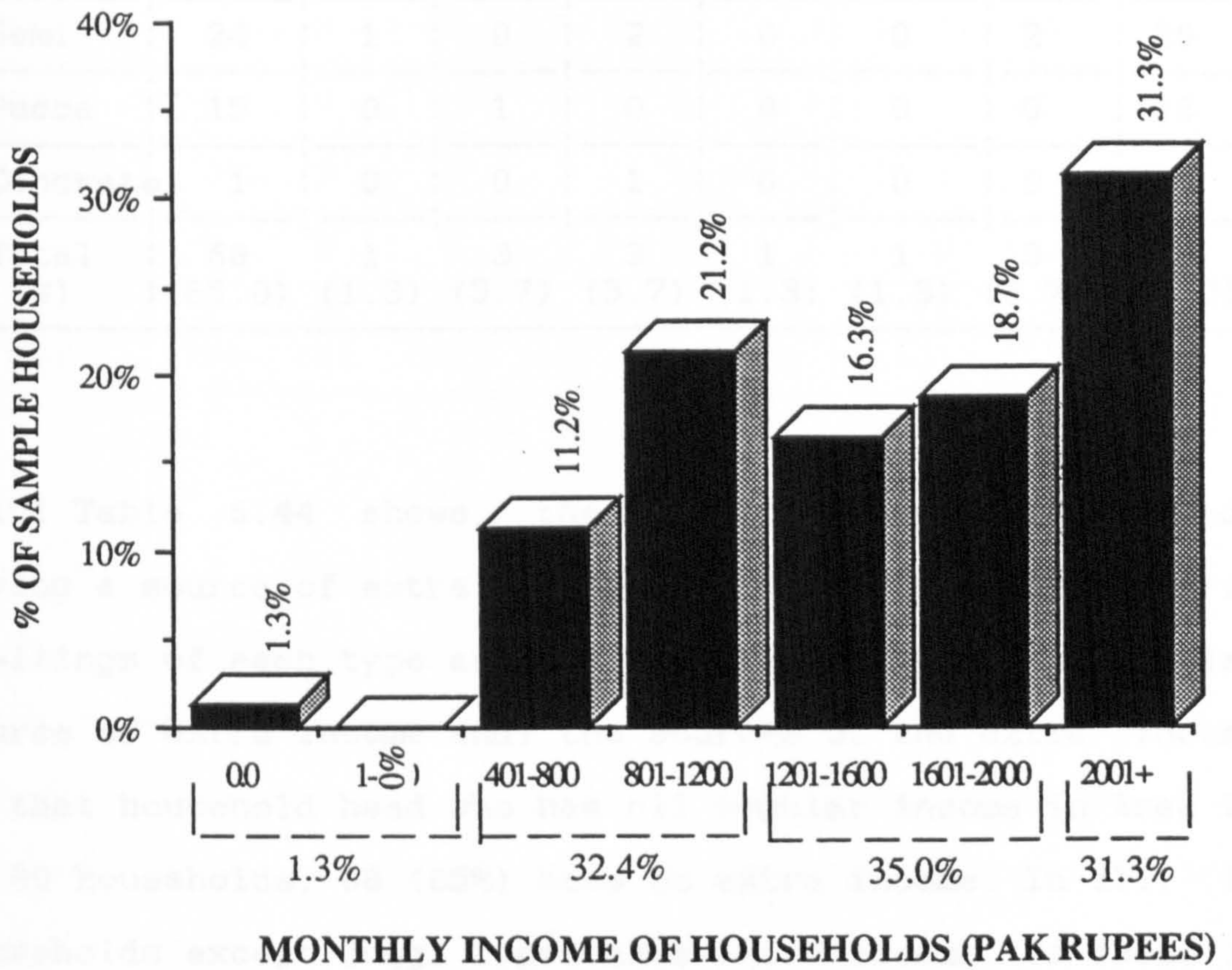


Table 6.44 Households by Sources of Extra Income.

House Types	Number of Households by Sources of Extra Earnings							Total
	No Source	Over time	Part time	Home activities	Agri-culture	Personal Business	Other members	
Juggi	4	0	0	0	0	0	0	4
Katcha	24	0	2	0	1	1	1	29
Semi	24	1	0	2	0	0	2	29
Pucca	15	0	1	0	0	0	0	16
Concrete	1	0	0	1	0	0	0	2
Total	68	1	3	3	1	1	3	80
(%)	(85.0)	(1.3)	(3.7)	(3.7)	(1.3)	(1.3)	(3.7)	(100.0)

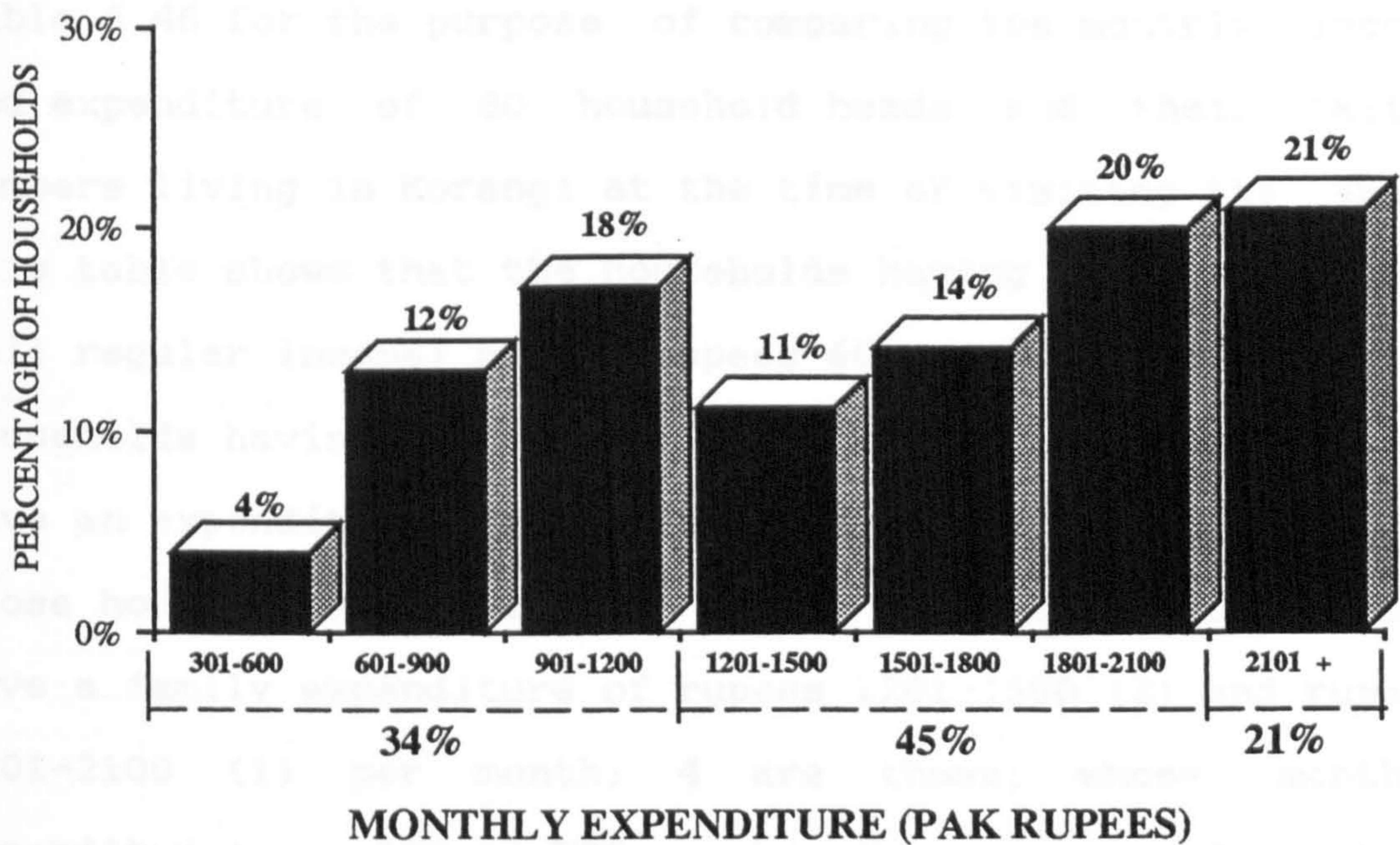
6.101 Table 6.44 shows, the total number of households having a source of extra income; the number of households in dwellings of each type and, of all types with a particular source of extra income and; the sources of the extra income of that household head who has nil regular income in Area 2. Of 80 households, 68 (85%) have no extra income. In all, 12 households except juggi types have extra income. Of these 12 households 3 have extra income from the work of other family members, 3 heads i.e 2 of katcha and 1 of pucca types households have an extra amount from part time work, 3 in all have extra income from home activities. Only 1 head who is employed, he gets extra income by working over time at his workplace. The various sources of extra income are explained in Table 6.21.

Table 6.45 Households by Monthly Expenditures of Family Members Living in Houses in Korangi Karachi.

House Types	Monthly Expenditures of Family in Pak Rupees.								Total
	1-300	301-600	601-900	901-1200	1201-1500	1501-1800	1801-2100	2101 +	
Juggi	0	0	1	0	0	2	0	1	4
Katcha	0	3	9	5	3	3	5	1	29
Semi	0	0	0	6	4	3	9	7	29
Pucca	0	0	0	3	2	2	2	7	16
Concrete	0	0	0	0	0	1	0	1	2
Total	0	3	10	14	9	11	16	17	80
(%)	(0)	(4)	(12)	(18)	(11)	(14)	(20)	(21)	(100)

6.102 Table 6.45 and Figure 6.26 give a statistical analysis of the expenditures of family members living in 80 households forming a sample in study Area 2 of Metropolitan Karachi. The analysis of monthly expenditures shows that none of the households of any type have expenditures of less than rupees 300. Of 80 households, 36 (45%) households have expenditures from rupees 1201 to 2100 per month, 27 (34%) of the households have expenditures between rupees 301 and 1200 per month, and the remaining 17 (21%) households have maximum expenditures i.e more than rupees 2100.

Figure 6.26 DISTRIBUTION OF SAMPLE HOUSEHOLD MONTHLY EXPENDITURES.
SIZE OF SAMPLE = 80 HOUSEHOLDS, AREA 2, KORANGI, KARACHI.



6.103 Figure 6.26 gives the proportion of households having expenditures of different amounts. This shows, 12% of sample households spend up to rupees 900 per month, 11% households have monthly expenditures up to rupees 1500, 34% of sampled households spend rupees 1501 to 2100. Only (4%) of households have minimum expenditures i.e from 301 to 600 rupees per month in Area 2.

6.104 The preceding tables 6.43 and 6.45 are presented in Table 6.46 for the purpose of comparing the monthly income and expenditure of 80 household heads and their family members living in Korangi at the time of visiting the area. This table shows that the households having irregular income (nil regular income) spend rupees 601 to 900 per month; 9 households having a monthly income from rupees 401 to 800 have an expenditure from 301 to 1200 rupees per month; 3 of those households who have an income of rupees 1200 or less have a family expenditure of rupees 1201-1500 (2) and rupees 1801-2100 (1) per month; 4 are those, whose monthly expenditures are 500 to 700 rupees more as compared to their income of rupees 1201-1600 per month. Surprisingly, in Korangi 6 households have a monthly income of more than rupees 2000 and they spend from rupees 900-1200 (1) to rupees 1501-1800 (5). If we compare the monthly incomes and expenditures of households in number and proportion up to a certain limit, we find that over all incomes and expenditures are balanced.

6.105 We also learn from table 6.45 that some of the households have a lower income as compared to their family expenditure, and the others have savings (surplus income). A few (6) heads having less income have to offset deficiency by any means. (Methods of balancing deficiency are explained in Table 6.23). The other 6 households with savings, either send money to relatives at the place of their origin or utilize it to improve their living and working status at the place of their present residence.

Table 6.46 Households by Monthly Income and Expenditure in Korangi Karachi: A Comparison of Findings.

Monthly Earnings in Pak Rs.	Monthly Expenditures in Pak Rupees.								Total
	1-300	301-600	601-900	901-1200	1201-1500	1501-1800	1801-2100	2101+	
00-00	0	0	1*	0	0	0	0	0	1
1-400	0	0	0	0	0	0	0	0	0
401-800	0	2	5	2*	0	0	0	0	9
801-1200	0	0	4	10	2*	0	1*	0	17
1201-1600	0	1+	0	0	5	3	3*	1*	13
1601-2000	0	0	0	1+	2+	3	9	0	15
2001-- +	0	0	0	1+	0	5+	3+	16	25
Total	0	3	10	14	9	11	16	17	80
(%)	(0)	(4)	(13)	(17)	(11)	(14)	(20)	(21)	(100)

*. indicates deficiency (more expenditures than income).

+. indicates surplus (savings with households).

CHAPTER SEVEN. LYARI AND KORANGI:A COMPARISON OF FINDINGS.

Introduction.

7.001 The statistical results of surveys for both Area 1 (Lyari) and Area 2 (Korangi) are presented in tables and figures in Chapter 6. The findings of empirical research were interpreted also in the preceding chapter. An analysis of results and findings of empirical research showed that the problems of various natures exist in both areas of study. The problems identified in both areas are summarised in Table 7.1. These problems are further examined and compared in two areas, with other parts of the city and other urban areas of the country in order to confirm

(i) the study areas as katchi abadis in Karachi;

(ii) to compare the findings of this study with other studies;

(iii) to know about the situation in other settlements of the country and in Karachi in particular; and

(iv) to find the peculiarity of the problems to each area.

Table 7.1 List of Problems Identified from Findings and Their Peculiarity to Each Area.

Y = yes and N = no

Nature of Problem	Area		Peculiarity to Area	
	1	2	(Lyari)	(Korangi)
HOUSING.				
- deterioration	Y	N	Y	N
- size of dwelling	Y	Y	N	N
- overcrowding	Y	Y	N	N
- security of title	Y	Y	N	N
INFRASTRUCTURE				
- water supply	Y	Y	N	N
- drinking water	Y	Y	N	N
- electricity	N	Y	N	Y
- gas supply	Y	Y	N	N
- roads and transport	Y	N	Y	N
- drainage system	N	Y	N	Y
- sewage disposal	N	Y	N	Y
- refuse disposal	N	Y	N	Y
EDUCATION.				
- illiteracy	Y	Y	N	N
- shortage of schools	Y	Y	N	N
- low standard	Y	Y	N	N
HEALTH SERVICES.				
- hospitals/clinics	Y	Y	N	N
- trained technical staff, medicines	Y	Y	N	N
- other services	Y	Y	N	N
MIGRATION.				
- international	Y	Y	N	N
- other provinces	N	Y	N	Y
- same province	N	Y	N	Y
ECONOMIC.				
- unemployment	Y	Y	N	N
- imbalance of income	Y	Y	N	N
- imbalance of exp.	Y	Y	N	N
- poverty line	Y	Y	N	N
PUBLIC PARTICIPATION				
- participation	Y	N	Y	N
- inadequate sources	Y	Y	N	N
- residents' co-op.	Y	N	Y	N
- Unawareness.	Y	Y	N	N

7.002 The information shown in Table 7.1, shows a significant difference in the existing problems as between Area 1 and Area 2. Part 1 of the table shows the existence and non-existence of problems in each area. Part 2 shows the peculiarity of particular problems in that area. From part 2 we know that, problems of the deterioration of houses, transport, and public participation exist in only Area 1, whereas problems of infrastructure- electricity, drainage system, sewage disposal, refuse disposal and migration exist in only Area 2. The remaining problems relevant to settlement as shown in that table are common in the both study slum areas.

Housing Conditions in Area 1 and Area 2.

Deterioration of Houses.

7.003 An analysis of the author's findings shows that the majority of houses sampled in Lyari are either katcha (41%) or semi-pucca (31%). Most of the houses in Lyari are very old. According to S.Naeem (1982) "about 62.5% houses in the country are katcha." In Korangi, houses in the central part are of pucca type, whereas houses in the villages and newly built colonies of Korangi are of various types (see table Ch.5.30). In Korangi, 72% of sampled houses are either katcha (36%) or semipucca (36%). The analysis of socio-economic characteristics of katchi abadis of Karachi, done by Karachi University; Applied Economic Research Centre

(AERC) (1988), shows that " Korangi, with 2.5%, has the lowest share of households residing in pucca houses." Similarly in Bhutta village, Keamari, Model Colony, Landhi, Khokrapar and West and East Wharf, and the outlying areas of Rehri and Gangro, " also have less than 10% of dwellings in the pucca houses." (AERC 1988).

7.004 Since these colonies have only been developed in recent years, the houses there are fairly new. According to M P & E C D (1987), the findings of a study comparing the 1980 housing census with that of 1961 shows that " 44% of Karachi housing units were constructed in the 1970 - 1980 period, 37% were built between 1947 and 1970, the remaining 19% of dwellings were constructed before 1947." A comparative study reveals that a considerable improvement has been made in the quality and quantity of housing construction, but the present situation is by no means satisfactory, particularly in the inner city areas of metropolises such as Karachi, Lahore and Peshawar. According to M P & E C D (1987), " in Lahore 13% of the houses are vacant because they are too dangerous for habitation, an additional 17% houses are in an advance stage of dilapidation."

Size of Dwellings / Number of Bedrooms in Each Dwelling.

7.005 In Lyari, most of the houses have one or two bedrooms with a small open space which is often used as kitchen. None of the one or two bedroomed houses has a living/dining room.

Some houses lack even a bathroom. Of the houses sampled, 90% have only one bedroom (71%) or two (19%). Similarly, many houses in Korangi have one or two bedrooms. The small open space in front of the bedrooms often doubles as a kitchen and verandah. A total 84% of interviewed households have one bedroom (46%) or two bedroom (38%) dwellings. Only 12% of sampled households have three bedroom dwellings. According to AERC (1988) " overall 70% of households live in one or two room houses in katchi abadis of Karachi. In Bhutta village, Keamari, Model Colony, S.I.T.E, Golimar, Korangi and Khokrapar, over one third of the families live in single room houses." According to the housing census organisation (1981), "about 50% of the housing units in the country have only a single room, 30% of houses have two rooms and 11% have three rooms. Only 8% have more than three rooms, the average number of rooms per housing unit is 2.2." Similarly the housing conditions in urban centres like Lahore and Peshawar are also far from satisfactory. According to MP&ECD (1987), "In Peshawar about 69% of housing units have one or two rooms, whereas in the walled city of Lahore about 33% of population live in single room dwelling units, the majority belong to low income groups."

Overcrowding (persons per household and per room).

7.006 Due to the increase in the population there is an acute shortage of housing in both urban and rural areas of the country. The urban poor cannot afford the high price of

plots, costs of building materials, construction labour, charges for land development or for infrastructure provided by local authorities in the urban areas. The poor households living in a small house prefer the basic needs of life such as food, clothing, better education and health services. The Authorities have been unable to provide adequate housing units for the poor. Hence overcrowding (high density) has increased in the past years. The findings for Lyari and Korangi reveal that a total of 721 of the population live in 80 houses of Lyari and 621 of the population live in the same number of houses in Korangi. The average family size in Lyari is 9.0 persons per household, the average in each dwelling type being respectively 9.5 (juggi), 9.1 (katcha), 8.3 (semi-pucca), 9.6 (pucca), and 9.5 (concrete). (See Tables 6.2 and 6.9) The average family size in Korangi is 7.6 persons per household, the average in each dwelling type being respectively 7.8 (juggi), 7.0 (katcha), 8.0 (semi-pucca), 7.4 (pucca); and 10.5 (concrete). (See Tables 6.25 and 6.32)

7.008 Overall 84% of total sampled population live in one or two bedroom dwellings in Lyari in contrast to 73% of total population living in one or two bedroom dwellings in Korangi. According to AERC (1988), "the average size of household in Landhi-Korangi zone is 7.2 persons, older settlements like Lyari are characterised by a higher average household size of over 8 persons." The comparison confirms

the high density of the population living in both areas of study. The number of persons per household and per bedroom, calculated for Lyari and Korangi are shown in Tables 7.2 and 7.3.

Table 7.2 Size of Dwelling, Number of Persons per Household and per Bedroom in Lyari and Korangi, Karachi.

Size of Dwelling Number of Bedrooms	O c c u p a n c y			
	Persons / household		Persons / Bedroom	
	Lyari	Korangi	Lyari	Korangi
One	8.0	5.9	8.0	5.9
Two	10.4	7.8	5.2	3.9
Three	9.6	11.9	3.2	3.9
Four	14.8	15.0	3.6	3.8
Five	21.0	8.5	4.2	1.7
All	9.0	7.6	6.2	4.3

(See Tables 6.1, 6.2, 6.24 and 6.25).

Table 7.3 Type of Dwelling, Number of Persons per Household and per Bedroom in Lyari and Korangi, Karachi.

Type of Dwelling	O c c u p a n c y			
	Persons / household		Persons / bedroom	
	Lyari	Korangi	Lyari	Korangi
Juggi	9.5	7.8	9.5	3.1
Katcha	9.1	7.0	6.4	4.8
Semipucca	8.3	8.0	6.0	4.5
Pucca	9.6	7.4	5.7	3.5
Concrete	9.5	10.5	6.3	3.5
All	9.2	7.6	6.1	4.2

(See Tables 6.1, 6.9, 6.24 and 6.32).

Status of Occupancy (Lease of Occupied Plot).

7.009 The analysis of results obtained for occupancy status of residents in the two areas of Metropolitan Karachi reveals, in Lyari only 20% of interviewed heads of 80 households have obtained quasi-ownership certificate (lease of land on basis of 99 years agreement), 43% of heads claim ownership and the remaining 37% heads have tenant status. In Korangi only 14% of all interviewed heads have secured status, 69% of heads still have to obtain a legal status of occupied plots, and the remaining 17% heads have rented houses so possess a tenant status.

7.010 The experience in Karachi including case study areas and in other cities of Pakistan has shown that the people occupy a piece of vacant land in the urban areas, build house(s), either live in it themselves or rent these houses to low income people. This trend is common in most cities of the Third World, Pakistan and in Karachi in particular (refer Chapters 2, 3, 4 and 6). The Government of Pakistan and the Local Authorities did not take notice of the rapid growth of the informal sector in metropolises of the country until the 1970s. They had no sound policy for regularisation of occupied land in the early years of Independence. Therefore the educated people and persons employed by the Government approached offices and obtained certificates of allotment or of ownership of land (plots) through their own sources. Many villages in Pakistan are still only on office

records but the land has not yet been allotted to the occupants.

7.011 As regards the status of housing units in Karachi, results of a survey published by KDA (1982) show " 64% are owned, 27% rented while 9% are rent free." On implementation of the Regularisation and Improvement Scheme in Baldia Town, Neintied (1987) summarises, " The number of leases issued in Baldia lags behind expectations. Of the three basic goals of policy, being regularisation of land tenure, improvement of infrastructure and cost recovery, none was fully achieved as intended."

Infrastructure.

Water Supply.

7.012 Due to the rapid growth of the population and parallel demand from other consumers in the industrial sector of urban areas, the water shortage is likely to become an even more serious problem in urban centres. According to Alvi (1987), " Half of the total population of the developing countries do not have access to adequate or safe water supply. In urban areas this facility is available to the extent of 58% of households." The results for two slum areas of Karachi show that in Lyari 71% of total households have no connection to water mains; while in Korangi 44% households have no access to water supply. The AERC's (1988)

analysis shows that on the whole 53% of households in Karachi; katchi abadis do not have access to a piped water supply. As water is an essential element for human life (one of basic needs) it should be easily available to every household. Hence there is a need to expand the supply of water available in the affected areas or relocate some of the population elsewhere in the city.

Drinking Water.

7.013 The availability of safe water to households both in rural and urban areas of the Country is far below the requirements for human settlements. People in Pakistan obtain water from various sources- handpumps, wells, rivers, streams, ponds and springs. Such water is often highly polluted, which results in a large number of waterborne diseases. According to M P & E C D (1987), " about 46% of country's population obtains drinking water from a handpump mostly inside the house. The water obtained from handpumps serves 33% of the urban house-holds." In spite of a water supply of 232 l per head per day in general and of 95 l per head per day for domestic purposes, there is an acute shortage of water in the urban areas of the country.

7.014 The results of empirical research for both, Lyari and Korangi also show that there is a shortage of drinking water in both areas. The people collect water through different sources (see Table 6.4). In Lyari only 29% of households

take drinking water from the mains. The water pipes are so disorganised that sewage mixes with the drinking water. Mains water comes at different times during day and night at varying pressures. Normally water comes only for one or two hours before sunrise and after sunset. Water stands in the pipes for the remaining time. Due to inadequate facilities for sewerage, a periodic low pressure leads sewage to mix with the water. Since the distribution system in inner parts of the city has become old and outdated, leakages and breakdowns are frequent. When fresh water flows, the standing old water mixes with it, and the people receive a mixture of the two for drinking.

7.015 People in unplanned parts of the city have procured water connections by paying money under the table. At present 56% of the households have access to the mains in Korangi. In both planned and unplanned parts of Korangi, the problem of drinking water is very severe. In both Lyari and Korangi the water supply is subject to interruption; especially in the winter season, when people buy water from a supplier.

7.016 (A man collects water in drums from the river or from other parts of the city and brings it on a donkey cart to sell to needy people). The people pay Rs. 40 to 60 (£1.25 to £2.0) per month for the purchase of drinking water. They have to be very careful using the water. According to Alvi

(1987), "even in squatter areas of urban centres where water standposts have been provided, one standpost serves an average of more than 1000 people."

Electricity.

7.017 The Government of Pakistan has been trying its best at National and Local level to provide electricity to the maximum number of households in urban areas, especially in squatter / slum areas (katchi abadis) through various improvement programmes. According to Karachi Development Authority (1987), "one-third of Pakistan's households have electricity for lighting and two-thirds use kerosene oil."

7.018 As mentioned earlier (JRP 1970 in Chs. 3, 4 and 6), the Local Authorities had initiated a Slum Improvement Programme in Lyari. Under this programme, during 1971-77 existing electricity, drainage and sewerage facilities were improved in this area. The analysis of results reveals that only 20% of interviewed households in Lyari have no electricity connections to their houses; whereas in Korangi 45% of the sample households have no electricity. The results of AERC's (1988) analysis show that electricity connections are available to 73% of households in all katchi abadis. The proportion of households in areas like Lyari and around the Sindh Industrial and Textile Estate (SITE), that have access to electricity is in the range 70% to 90%. Penetration to households in newer and outlying abadis

including Landhi, Korangi, Model Colony, Saudabad and Khokrapar is in the range 20% to 40%. According to K D A (1987) "about one third of the total dwellings in Pakistan have been connected with electricity. This facility is available to 70% of urban households and 15% in the countryside."

7.019 If we compare the proportion of households for each study area with that for the country as a whole, we find that in both areas a high proportion of households have connections for electricity. But the comparison of two areas shows the existence of a problem in Korangi.

Gas Supply.

7.020 More than 75% households in Lyari have not been supplied with gas under the Slum Improvement Programme. On the other hand more than 90% of interviewed households in Korangi are not using supplied gas. (See Table 6.26) The analysis of AERC (1988) shows that gas connections are available to less than one third of the total households in all katchi abadis while more than two-thirds of the households use wood and kerosene oil for cooking purposes.

Drainage system.

7.021 In Lyari only 11% of total interviewed households are not using piped drainage system. By contrast, 61% of the

households sampled in Korangi have no access to the drainage system.

Sewage disposal.

7.022 Urban sewage treatment facilities lag far behind the water supply. As stated earlier a substantial amount of raw or partially treated sewage is being discharged into rivers, into the sea and into nallahs; which creates serious pollution of fresh water, the estuary and the environment generally. (Refer to Ch. 4) According to S. Naeem (1985), "sewage facilities are available to only 36% of Karachi's households. The remainder rely on a night soil collection service, pit latrine or any opportune area to dispose of their waste water. About 187 MG (850 Ml) of sewage are generated in the city daily of which 40 MG (182 Ml) is treated daily." Karachi the largest city of Pakistan has two existing treatment plants and one oxidation lagoon with a total capacity for treating 205 Ml of sewage. The situation in other cities is even worse. About 10% of Lyari households do not dispose of their sewage into the sewerage system. They throw it on the ground or have a pit latrine as the means of disposal. In Korangi 39% of households dispose of their sewage through the sewer system. A very high proportion (59%) of the remaining households throw sewage on the ground or dispose of it in pit latrines. The comparison confirms the existence of a problem in Area 2. The existing

system needs urgent treatment to improve the quality of life in Study Area 2.

Refuse disposal.

7.023 At present Karachi Metropolitan Corporation is responsible for the disposal of refuse generated in the city. The KMC arranges disposal of refuse by utilising large containers and likewise its vehicles and related staff for cleansing the streets.

7.024 During the authors visits to the selected slum areas, the manholes were found uncovered. Due to the sewer system (open lines) being blocked-up, water was found standing on streets. Due to the containers being at a distance, the refuse was lying in front of houses. In view of S. Naeem (1985), " about one-third of the total garbage generated in the city is collected and transported by the KMC garbage vehicles to the dumping grounds." The remaining refuse is dumped at the corners of streets, on open plots and in nallahs. This is because the sweepers and refuse vans are insufficient, and dumping sites are far away from the city. According to Alvi (1987), " in squatter areas even minimal level of solid waste disposal service is not available."

7.025 The diagnosis of results shows that out of 80 households in Lyari, only 12% throw collected refuse in the streets. The remaining households either used the large containers or dumped their refuse on open sites. The same

number of households were interviewed in Korangi, where 34% of the total households were found to throw refuse in the streets. The remaining households used open sites for dumping refuse.

7.026 From a comparative view it is clear that the high percentage of residents in Area 2 (Korangi) use streets and open sites to dispose of their refuse. This method may cause danger to human lives. Therefore the people in this area need training to use facilities properly.

Migration.

7.027 The growth of Karachi has always been largely due to massive migration. During the last 43 years, the city has experienced three migrations. As already explained (See Ch.4) the people migrated from India towards Pakistan at the time of Independence (1947). Later, in the early 1960s there had been tremendous industrial development in the city which had also attracted migrants from other parts of the country. This movement continues from various provinces (both rural and urban areas). The third migration started with the creation of Bangladesh (1971) when a large number of people migrated to Pakistan, and the majority of them settled in Karachi.

7.028 The migrants spread all over the city to settle themselves on whichever piece of vacant land suited their purpose. At present some 2322 katchi abadis exist throughout

Pakistan, housing a population of 6 M. Karachi alone houses 2.6 M people in some 432 katchi abadis (See Table 4.5). The evaluation of results obtained shows that in Lyari only 14% of interviewed heads are migrants, whereas in Korangi about 72% of total interviewed heads are migrants. This figure shows a highly significant difference in the proportion of recent migrants' between the two areas.

Proportion of International migrants.

7.029 In area 1, about 9% of total migrants have migrated from India. In area 2, about 16.3% of total migrated heads have moved from India (15%) and Bangladesh (1.3%).

Proportion of migrants from the other Provinces.

7.030 Analysis of surveys shown in Tables 6.10 and 6.34 shows that 3.7% of migrated heads had come to Lyari from the other Provinces; whereas 35% of migrants moved from the other Provinces and have themselves settled in Korangi.

Proportion of migrants from the same Province.

7.031 In Lyari only 1.3% of total migrants had moved from other parts of the same Province. In the case of migrants who moved from the other parts of the same Province, 21% of migrants had moved to Korangi. From the above proportions of migrants moving from three different places, it seems clear that a very high proportion of international refugees and migrants moving from the other Provinces and from the same

Province have settled in Korangi. Review of literature about the process of low-income settlements in the cities of the developing countries (refer to Chapter 2), in Karachi metropolitan area (refer to paras 4.032-4.038), and in Korangi in particular as mentioned above, confirm that the migration to, and development of unauthorised settlements in the large cities is largely an uncontrolled process. Hence in the author's view, to propose and implement a policy for stopping this process is not possible in reality. Hence, the heads of Government should avoid making policy statements which encourage the migrants in the country. In addition the local authorities also should strictly enforce law and order and should not help the urban poor to develop illegal settlements in the bigger cities of the country and in Karachi in particular. These measures would hopefully help stopping further creation of unauthorised katchi abadis in the cities.

Education and Health Services.

Illiteracy.

7.032 Education, health and other community services are also important components of developed human settlements. The literacy rate throughout the country is low. According to Karachi Development Authority (1987), " only 26% of the population is literate- the facilities for primary education

are available to about 50% of that portion of the population falling within primary school age group."

7.033 The Government of Pakistan has been introducing various education programmes in the country. Muhamad Khan Junejo the Ex Prime Minister in 1986 announced a Five Point Programme. Under this programme mosque schools and primary schools were to be opened in the country, especially in rural areas, to promote education. Besides this, the Adult Literacy Programme was also started to educate the illiterate adult population in the country. The purpose of this programme was not only to make education free to illiterates but was also to create new jobs for unemployed people. According to S. Naeem (1983) " The development Plan 1974-1985 for Karachi had fixed targets for 100% enrolment of the primary school-age population and 60% enrolment of the secondary school-age population."

7.034 One can judge the achievements of the education programme introduced by the Prime Minister and the targets fixed by the Development Plan from an analysis of the achievements made at National and Local levels, and the findings for the two visited slum areas of Karachi. The analysis shows that in Lyari 55% of heads of households at present have no education at all (i.e they are illiterate); 45% of total heads are educated and out of this only 19% possess primary, secondary and diploma level of education. In Korangi 49% of total heads at present possess no level of

education that is they are illiterate; 44% of heads had formal education and 20% of these possess a level of primary education. (See Tables 6.15 and 6.38). Of all adults (both sexes), 63% have no education in Lyari; 20% had formal education and about 14% of those at present possess a level of primary education. Of the adult population living in Korangi, 64% are illiterate; 29% had formal education and at present about 16% have education up to primary level. (refer to Tables 6.16 and 6.39)

7.035 On the other hand 33% of school-age children in Lyari are without education; 19% of school-age children have formal education and about 0.4% of these have secondary level of education and 48% are still going to learn the Holy Quran, religious education in mosques or attending nursery schools. Of the children living in Korangi 35% are illiterate; 21% have formal education and about 3% of these possess a level of secondary education and like Lyari, about 44% children of Korangi are still engaged in learning informally. The A E R C (1988) in the results of analysis of socio-economic characteristics of katchi abadis has stated, "the overall literacy rate in katchi abadis is 48.6%. Areas with a literacy rate of 50% and below are Bhutta village, Keamari, the Port area, Korangi, Landhi, Model colony, Saudabad and Khokrapar."

7.036 Why are such high percentages of each category (heads, adults and children) uneducated? A logical answer

to this question will be that, there may be shortage of schools; schools may be at a great distance from homes; or parents do not want to send children- because of the danger, because they could not afford the travel costs for the child or because of limited earnings parents could not afford school fees and uniform; or they engage the children in some technical, non-technical and petty jobs to support the family. Let us find answer to the above question from the knowledge provided by the residents of two Study Areas.

Shortage of Schools.

7.037 The respondents in both Area 1 and Area 2 were asked about the existence of schools in the area of their residence. Some 40% respondents in Lyari siad that there are few primary schools at a great distance from their place of residence. Similarly some 47% of interviewed respondents in Korangi said that there are no schools nearby. The residents of both areas have complaints about the non existence of secondary schools. Some respondents also said that they had engaged their children in informal jobs. Some children work at fuel stations, some in garages, some with jewelers and some are learning sewing.

Low standard and Expensive education.

7.038 Most of the respondents said that there is poor education in the schools. The people said that due to their

limited income, they could not afford to put their children to school. It was also learnt that in schools (staff) ask a child of the poor to wear a uniform, purchase expensive books and bring school fees every month.

7.039 Along with Government schools, some middle class people have opened private schools in the area. The private schools run by rich people provide a better education than the Governments' schools. But the owners of these schools charge very high fees to run their business. The poor people cannot afford to buy books, or uniforms and pay school fees for their children.

7.040 From the above diagnosis, it seems that both the Prime Minister's programme and the Development Plan's targets have not benefitted the residents of visited areas. One can safely say there is no place for the child of an inhabitant with limited income in either Government or private schools. Therefore Government has to refrmulate education policy.

Hospitals and Clinics.

7.041 The health facilities for the country as a whole and for Karachi in particular lag behind the actual demand. According to S. Naeem (1983), " the total hospital beds in the public sector for Karachi is 4544." The data presented by K D A (1987) shows that one doctor serves 4.6 k persons, and one dentist serves 83 K persons. There is one primary

health care unit per 13 K persons and one hospital bed for every 1790 persons. Due to inadequate health services, the city experiences high infant mortality, high rates of child deaths and a low life expectancy. According to KDA (1982), average expectancy of life in Karachi " according to international standards is 52 years."

7.042 In the 1970s the Government of Pakistan constructed Lyari General Hospital for more than 0.7 M of the population of the area. This hospital is located in the south-west part of Lyari, close to the developed parts of the area. The only old maternity home, located almost in the middle of the area, serves the population of the undeveloped parts of the area. When the heads of households were asked about health services available in or near to the area of their residence, 70% of the sample heads in Lyari told about non-existence of a Government hospital in or near their area. This shows that the hospital mentioned above cannot be serving the whole population of the area.

7.043 During group discussions the respondents said and it was confirmed by personal observations that a huge number of private practitioners run small clinics attached to each pharmacy. Both the clinic owners and pharmacy operators are nonprofessionals, and they charge too much from the poor for ordinary treatment. In Korangi 97% heads confirmed the nonexistence of a hospital in or around the area of their

residence. During the visit to the area, one or two small hospitals and a few dispensaries were seen, existing only in the planned part of Korangi. Like other poor areas of the city, the private nonprofessional practitioners in Korangi charge heavy fees to patients. According to S. Naeem (1983), " Many low income areas are at long distances from general hospitals. The private sector hospitals are beyond the paying capacity of low-income groups."

Trained technical staff, medicines and modern equipment.

7.044 In Area 1, Lyari General Hospital (1970s) and an old maternity home (1921) exist to serve the whole population of the area. Whereas in Area 2, only a few hospitals and clinics exist in planned parts of Korangi. The available health services in both Area 1 and Area 2 lack trained technical staff and are short of medicines, modern equipment and other services such as an emergency unit, ambulance service etc.

Source. Group discussions with local residents and religious leaders arranged on Fridays.

Inadequate health services.

7.045 Because of the non-existent health services in newly developed areas, shortage of trained staff and equipment, and nonavailability of an ambulance service in existing health institutions, the poor residents of Area 1 and Area 2

have to visit private practitioners in the area of their residence. In an emergency people can approach the Civil Hospital and Jinah Hospital, which are located in the central parts of the city. People have to pay more money not only for transport from and to their home but also for treatment. During the visit of Area 2, in a T. B clinic, a deputy and a cashier were found in charge of the clinic, working for only four hours a day.

Economic Conditions of Residents in Areas 1 and 2.

Unemployment.

7.046 A considerable proportion of the Lyari population is either unemployed or employed temporarily. Most of the people are engaged in unqualified occupations. Some 54% of the heads of household work privately; while 24% of household heads are unemployed. As a rule, the younger generation (aged between 15 years and 30 years) is unemployed; the people of 30 to 40 years work on daily wages; and people above 40 years age (only 11%) are employed in Government jobs. Most (50%) of the people living in the settlements work privately in Korangi. Some 13% of interviewed heads are unemployed and a low 16% of Korangi people work in Government offices. The AERC's analysis reveals that the lowest unemployment rate 4.5% is reported in Golimar while the highest unemployment rate 18% to 19% in Bhutta.village, Keamari and Lyari. According to KDA (1982)

and Nizami (1985), "unemployment or underemployment in Karachi ranges from 20% to 30%."

Income disparity.

7.047 The katchi abadis are inhabited by the working class population, the majority of which comprises wage earners and salaried persons. The people who are self-employed run their small shops, pharmacies or hotels, or have cattle farms. The people living in both Lyari and Korangi belong to the various income categories. (See Table 6.20) The minimum monthly income of a household is Rs.800 (£ 28). The maximum monthly income varies from Rs.2100 to 3000. The analysis of survey data confirms that an average income of a household in both Lyari and Korangi is Rs.1700 to 1900 respectively. The analysis of AERC (1988) shows Rs.2158 an average income of a household in katchi abadi. Given the average income of 2158 rupees, according to AERC (1988) the highest average income of a household is Rs.2884 in some parts of Lyari as compared to the lowest average income 1798 rupees per month in Model Colony, Saudabad and Khokrapar katchi abadis in Karachi. A large proportion 78% of this income is obtained from wages and salaries followed by business profits, which shares 17% of an average income. Remittance accounts for 3.6% and other income shares the remaining 25% of income (See Table 7.4). Out of 80 heads in Lyari some 3 (4%) have no regular monthly income. At the same time in Korangi the head of only one household has no regular income. The

householders with no regular (permanent) incomes have an income from sources of extra earnings. (See Table 6.21)

Table 7.4 Sources and Income of a Household in Katchi Abadis in Karachi.

Sources	Income in Pak Rs.	Percentage
Wages and Salaries	1676.00	77.7
Business Profits	363.00	16.8
Remittances	78.00	3.6
Other Incomes	41.00	1.9
Total	2158.00	100.0

Source. Applied Economic Research Centre, 1988 with changes.

Imbalance of Expenditures.

7.048 There is also an imbalance of expenditures in Lyari and Korangi. The monthly expenditures of a household ranges from a minimum of Rs.600 to a maximum of Rs. 2100 or more. The households having no permanent incomes have to arrange money from different sources. The results reveal that 3 households with no regular income in Area 1 have monthly expenditures of Rs. 1200, 1500, 1800 and one household in Korangi spends up to Rs. 900 per month. (Refer to Tables 6.23 and 6.46 for more information) The AERC's analysis shows Rs. 2109 as an average expenditure of a household in katchi abadis of Karachi. (See Table 7.5)

Table 7.5 Expenditures of a Household in Karachi Slums.

List of Items	Amount in Pak Rs.	Percentage
Food	1230.00	58.3
Clothes	166.00	7.9
Rent of House	276.00	13.1
Others	252.00	11.9
Transport and others	185.00	8.8
Total	2109.00	100.0

7.049 Table 7.5 confirms that of the total expenditures, 66% is spent on food and clothes, 13% on rent of a house, 12% of expenditure accounts for medical care, education, gifts on marriages and other occasions, and entertainments; whereas the remaining 9% of the total expenditure includes costs of transportation, recreation and remittances. Nizami (1985) confirms that "up to 10% of the family budget of low-income households is spent on transportation." With help of the analysis of expenditure of the households in case study and other katchi abadis in Karachi (Table 7.5), the author seeks to know the minimum income for subsistence for an average family in the katchi abadis in Karachi.

Minimum Income for Subsistence for an Average Family.

7.050 The statistics about average occupancy levels- persons per bedroom (refer to para 7.008) and per household (refer

to Table 3.16 and Figure 4.4) in Karachi katchi abadis including Lyari and Korangi show a significant difference between the size of average number of persons per bedroom and per household in (a) Pakistan (b) Sindh province (c) Karachi and (d) the two case Study Areas. Hence in the author's view it is difficult to decide about size of an average family. The results of AERC's analysis for katchi abadis in Karachi, however, match to a great extent with the results of the author's analysis of data about Lyari and Korangi. Hence for the purpose of this study, the author considers an average family to consist of 7 persons per household in all the katchi abadis.

7.051 The minimum income for subsistence for an average family will depend upon type of house, occupancy status, location, neighbourhood, culture, local traditions, customs, social status and living and working environments of a family living in a particular katchi abadi. The study has established that sample households are living mainly in five types of house from juggi to concrete having three types of status i.e owned, rented and rent-free, living in two types of katchi abadis within the metropolitan area. Some katchi abadis are closer to the planned areas and others stand as individual communities in the city. The culture, local traditions and customs vary a little, depending on the place of origin of these families. Nevertheless the people from India, Bangladesh and Pakistan have similar culture,

traditions and customs except for religion. With regard to social status and living and working environments, the study has identified similarities within katchi abadis of Karachi.

7.052 Considering these facts and monthly expenditure of the households who have no regular income, the author presumes Rs.1500.00, per month to be a minimum subsistence for an average family of 7 persons living in a rented house; Rs 1200.00 for a family living in their own house; the difference of Rs. 300.00 is essential for rent of a house (with one or two rooms) in a katch abadi, and Rs. 1140.00 a minimum subsistence for families who are paying no rent. The families paying no rent, living in already regularised katchi abadis or in a katchi abadi which still is under research and evaluation, will need the same income as families living in their own houses. The difference (Rs.60.00) will be required for gas, electricity bills and other services, if the households have gained access to the existing facilities in a particular katchi abadi or slum area. In comparison with expenditures of a household in Karachi slums calculated by AERC (1988), the details of assumed minimum income for subsistence for an average family of each categories mentioned above are shown in the following Table 7.6.

Table 7.6 Minimum Subsistence for Average Household.

List of Items	Family Expenditure Amount in Pak. Rs.	Percentage	
		1200	1500
Food	650	54.1	43.3
Clothes/Footwear	150	12.5	10.0
Education/Health	120	10.0	8.0
Transport/Communication	80	6.6	5.3
Recreation	40	3.4	2.7
Gifts, Wedding/Funeral	100	8.4	6.7
Sub-total (rent-free)	1140	95.0	76.0
Fuel/Electricity	60	5.0	4.0
Sub-total (owners)	1200	100	80.0
Rent of a house	300		20.0
Total (tenants)	1500	---	100

Role of Organisations and Residents in Development of Low-income Settlements Particularly in Study Areas.

Existing Organisations.

7.053 The existing organisations represent the residents and act as a community development committee. These committees perform various functions on behalf of the political parties, the community as a whole and sub-communities in particular. They act as the executive organ of a voluntary association of members of the community. Generally, these organisations in both new and old katchi abadis are known by the name of an ethnic community, a tribe, religious or

national and provincial political party, if the executives and the majority of the residents have affiliation with any of these mentioned above.

7.054 In newly developed settlements of Karachi especially in Korangi, Punjabi-Pukhtoon, MQM, Muslim Ithad, Jamait-e-Islami and Islami Ithad-the multi-ethnic community welfare organisations have been established after the names of the communities belonging to Punjab, North-West Frontier Provinces of Pakistan and the refugees from India, and in the name of Islam. In Lyari, the Baluch community has been living there over a long period, so had established Baluch Ithad (unity) Wefare Organisation and has sub-units in almost all sub-community areas of Lyari. In Lyari, Korangi and other katchi abadis there also exist offices of the Pakistan Peoples' Party, the national political party of the country.

Establishment (Setting Up) of Organisations.

7.055 These organisations are set up in different ways in katchi abadis of Karachi. This study has identified abadis of two types, and also has explained the different methods by which the newcomers invade land, gain political support, arrange a doctor, and obtain service facilities through the political leaders and officers concerned in the Karachi metropolitan area (refer to paras 2.030-31 and 4.032-33).

7.056 Once the katchi abadi is established, the group of people (initiators) approach the other residents, and set up a formal organisation in a specified katchi abadi. These initiators and residents formulate some regulations and agree to work together according to these regulations in the future. They decide to contribute in all aspects- physical, social and economic (monetary terms) development of the area. They agree to deposit a specified amount (say Rs.5.00 per month) with the organisation to carry out its functions. This method of monetary support is practised in a few katchi abadis, in others the residents contribute whenever some amount is required for the purpose of development.

7.057 In these settlements the initiators themselves hold the main executive posts such as the President, General Secretary and Treasurer, while other residents are allocated the posts of Joint Secretary and Publication Secretary. The President is responsible for all political, organisational, administrative and social matters related to the development of katchi abadi, and he presides over the meetings. The General Secretary is always considered to be the right hand of the President, and he looks after all the matters mentioned above in the absence of the President. The joint secretary helps or represents the General Secretary, the Treasurer keeps accounts up to date and the Publication Secretary contacts the local residents in order to identify

their problems, and then get publicity through the local newspaper.

7.058 In old katchi abadis the methods for setting up the welfare organisations differ from those for new abadis as mentioned above. However, the internal system, posts and activities of the local leaders and functions of the organisation are similar to those in the new abadis. As the old slums have been developed with the growth of the city, it was a common practice there that a few senior members of the extended family used to get together in the house of a member of the extended family, discuss the social matters, and resolve the internal problems of the families. Within these senior members, one who had property and / or sound education would become a well known personality and was respected within the family and neighbours. This honourable person used to deal with all social matters of the family, for example, if a child was beaten by his teacher, due to conflict between two families, a member of one family was injured and a member of the other called in the police, the respected person (leader) got involved in all these matters and resolved the conflicts. At that time, this performance was confined to the extended family; later to a certain number of houses in one or two streets. As the number of members of the community seeking help from that leader increased, the activities also extended from streets to a whole Mohalla (sub-community).

7.059 The whole residential area is subdivided into small groups of houses according to streets and roads. The area covering about 100 households along streets, pavements and lanes is called the Mohalla; while the inhabitants of a mohalla are called the sub-community. At the same time, for enhancement of their activities, these senior members decided to set up a mohalla committee. The mohalla committee consisted of a few more members to help the respected person being the head of the committee. This committee was representative of the residents of that particular mohalla in all dealings with political parties, enforcement agencies and administrative authorities.

7.060 After a few years, when the responsibilities of the mohalla committee were enhanced, these selected representatives decided to set up an organisation with sub-units at mohalla level in order to distribute responsibility between the executives; to work together with the other members of the community for the effective running of organisations and units. Each sub-unit has at least three leaders- the president, general secretary and publication secretary who helps the general secretary in collection of money and keeping the office record up-to-date. Presently, formal organisations in old katchi abadis consist of the executive posts similar to those in new abadis, and also have a constitution that is prepared with the guidance of founders of the mohalla committee.

Functions and Activities of Existing Organisations.

7.061 The existing welfare organisations such as Baluch Ithad, Pujabi-Pakhtoon, MQM and Jamait-e-Islami have sub-units within mohallas. They represent and manage the political, administrative, social and economic affairs and serve the interests of political leaders and of the sub-communities living within these mohallas. The leaders of sub-community are allocated a small office (built or rented) in every mohalla by the organisation or by the political party (if it is associated with that party). The offices are used by the leaders for meeting with members of the sub-community, to identify and discuss the problems relevant to development of the community. The local leaders prepare a list of the problems, submit to head office and get published in the newspaper through the head office of the organisation. They help the residents to solve their social, economic and administrative problems.

7.062 On the other hand, one of the main executives, usually the president or general secretary of the organisation visit the political leader of that area and the officers. He holds meetings with the elected leaders and officials, discusses or negotiates with them in order to find the solution to all or some problems of the residents in that katchi abadi. Because new katchi abadis in Karachi are developed with help of the politicians and bureaucrats, hence these community welfare organisations succeed in resolving the most problems

of the residents of these katchi abadis. It is alleged that due to desolation of Benazir Bhutto's government, political differences with other parties and a rigged election this party could not win majority seats in the 1990 Elections. Presently, the members of this political party sit on the seats reserved for opposition party in the National and Provincial Assemblies. The elected leaders of this party can do little except through personal approach and friendship with the officers concerned for the development of the settlements, where they have supporters.

7.063 With regard to social and economic problems of the community the organisations also play an important role. If a person dies and his relatives wish to take the remains to his place of origin, the leaders of the sub-community and of the main organisation will arrange transport, and support the family members in monetary terms. These organisations help sick members of the poor families to receive treatment in hospitals, sometimes they bear expenses for medicines too. They help the poor community in pleading of their cases against evacuation from occupied land and harassment from enforcement agencies, particularly the police department.

7.064 In addition to the welfare organisations mentioned above, there are Bisi Committees in the katchi abadis. The Bisi system involves a group of from two people to hundreds of people. These committees are set up within the sub-community, and are run on a friendly basis. The residents of

other sub-communities also become members of these bisi committees. A person within the group is responsible for the organisation of the bisi and is called the manager while the other people are called members of the committee. The committee decides the amount—say Rs.5.00 per week or per month, and the date of the draw. The manager collects fixed amounts from members and holds a draw on the appointed date. Some of the members attend the draw ceremony and others do not, they trust the manager. At the time of the first draw the names of all members are put in a basket and a member or a child is requested to pick out the name of one member. The person who wins the draw, receives the whole amount, and is free to spend it however he likes. For the poor person this is a golden opportunity to improve his living or working conditions. This is not the end, the winner has to contribute to future draws till the last winner gets his chance. At the time of the next draw, the names of those members who have already been awarded are not put in the draw. This is an unofficial banking or self-help system of improving living and working conditions in the katchi abadis.

Participation.

7.065 The term participation here means 'interest' taken by the existing welfare organisations and the residents in the improvement of case study katchi abadis. An analysis of the survey results shows that more than 40 heads (54%) confirmed

that none of the residents have been interested in the improvement of Area 1; and 26% of the heads confirm that the existing welfare organisations play an important role in the improvement of the area. In Area 2, 41% of interviewed heads said that the welfare organisations play an important role and 29% of heads confirmed that none of them has participated in the improvement of the area.

7.066 From the above analysis one can easily understand the importance of the role that existing welfare organisations play in the development and improvement of the community and of areas. This confirms the social links between residents and leaders, sympathy for community and human spirit to help the poor, and interest in the development and improvement of the area and of the community in particular. The analysis also confirms that existing welfare organisations and people are interested, and they want to participate in the process of development in their areas. What is lacking is that the welfare organisations and the residents need training, guidance and moral support to utilise their extensive capabilities. Van der (1985), shares his experience gained from Ghausia Colony a katchi abadi that has been transformed into a decent part of the city. He says, "Of course people will participate if instead of the bulldozer's threat 'sukun' i.e peace or security of title is offered."

Inadequate Sources of Information.

7.067 In Area 1 about 63% heads listen to the radio and 44% watch television at home. In Area 2 some 56% heads have radio at home and some 34% watch television programmes. Both media lack information about happenings in the city. The media do not transmit information about development projects, neither do they display constructive programmes. In this modern scientific world just a little more than 60% of people listening to radio and some 34% watching television is insufficient for the community as a whole to be up to date. In the case of improvement programmes announced by the local authorities people cannot obtain proper information from the offices concerned. The officers hide facts and try to get money through speculators for issuing ownership certificates or for sanction of services. Neintied (1987) maintains that, during the Improvement and Regularisation of Baldia township "neither KMC nor Councillors elected as representatives of the population have been very active in providing information on two points- regularisation and improvement. A number of interviewees stated that they had to bribe K M C officials to obtain a lease document." This shows that the information sources need improvement to provide free correct information to poor people so that they can get maximum benefits from the development programmes. (See publicity and participation in Chapter 9)

Lack of Residents' Co-operation.

7.068 The diagnosis of survey results shows that in Area 1, only 9% of heads of households, with the help of their friends, are interested; and 6% of heads said that the community as a whole were interested in the improvement of the area. In Area 2, 14% heads of households, with the help of friends, 11% of heads themselves have played a role in the improvement of the area and 19% of heads have confirmed the interest that the community as a whole has taken in the improvement of the area.

7.069 The figures above show a significant difference in the proportion of residents who have been interested and have played a role in the improvement of the area of their residence. From this significant difference we know that the people in Area 2 are innovative, co-operative, helping each other and participating together as a community in the development of the area. The comparison shows that the residents in Area 1 themselves have no interest and are highly dependent on the existing welfare organisations and the political leaders to whom they support during the election. As explained earlier the people of Lyari had always supported the Pakistan Peoples Party (founded by Mr Z. A Bhutto) in elections, therefore at the time of author's visit to this area, people were looking forward to the promises and the statements made by M/S Benazir Bhutto, the

Chair person of Pakistan Peoples Party and Ex-Prime Minister of Pakistan. (December 1, 1988 to August 6, 1990).

Unawareness of Improvement Programmes.

7.070 In spite of the levels of listening to radio, watching television, and reading newspapers in the area, most of the respondents showed an unawareness of improvement and development programmes, whether for their particular areas or for the city as a whole. When the people from Area 1 and Area 2 were asked about the Governments' policies/programmes for future development, the people knew nothing. Most of the people were looking forward to Benazir Bhutto's recently (December 1, 1988) established Government. In Lyari, people said that Benazir says " Lyari is my heart and I want to develop it like Paris". They said, " we wait and see what she does to Lyari". In Area 2, the respondents expressed their dissatisfaction with mediums of information. These people have very little knowledge about the development programmes. Most of the people said " due to the ethnic roits, most of the time there is curfew and we can not go away from our residence, in this situation, when and what we know about the programmes, you yourself can understand from the poor sanitation, housing, and poverty in the area."

Residents' Priorities for Future Improvements.

7.071 At the end of the interview (by questionnaire), the respondents of Area 1 and Area 2 were asked about their preferences for future improvements. Table 7.7 shows the priorities of the respondents for future improvements.

Table 7.7 Respondents' Priorities for Future Improvements.

AREA 1		AREA 2	
Priority	Respondents %	Priority	Respondents %
1. Provision of Jobs	55	Provision of Infrastructure	69
2. Better Education Services	45	Better Education Services	60
3. Better Health Services	45	Better Health Services	35
4. Provision of Infrastructure	43	Provision of Jobs	24
5. Improvement of Housing	25	Improvement of Housing	9

7.072 Table 7.7 shows the priorities of residents of both Area 1 and Area 2. More than 50% of the households in Area 1 wish to have better jobs in the area; whereas 69% of the households prefer improvements to the infrastructure in Area 2. This shows that Area 1 lacks provision of jobs.

As mentioned earlier (refer to table 6.17) only 11% of heads of households are employed in Government jobs, therefore Area 1 needs the establishment of jobs for residents. The list of problems identified in both areas (refer to Table

7.1) shows that the infrastructure is a severe problem in Area 2. Hence the residents of this area wish improvements by providing infrastructure in their area. Neintied (1987) says, " Given the de-facto ownership, many prefer to invest in utilities rather than take a lease, especially since the provision of gas connections has become possible."

Summary and Conclusions.

7.073 The findings of physio-socio-economic conditions in both Area 1 and Area 2 are summarised in Tables 7.8 (a - d). A comparison of housing conditions and legal status (Table 7.8 a) does not show a significant difference in number of houses for each type. This table clearly shows that a high proportion (71%) of dwellings for all types contain one bedroom in Area 1; whereas in Area 2, 46% of dwellings have one bedroom. The proportion (13%) of dwellings with three bedrooms in Area 2 differs from that in Area 1 (9%). This confirms the existence of the problem in Area 1.

7.074 On the other hand a comparison of density i.e persons per household and per room in both Areas also shows that on average a large number (9) of persons live in one house in Area 1 in contrast to 7.6 person per household in Area 2. Overall, 84% of sampled population live in one and two bedroom dwellings in Lyari in contrast to 73% of population living in one and two bedroom dwellings in Korangi. The

number of persons (6.2) per bedroom, calculated for Lyari is a little higher than the number of persons (4.2) per bedroom, calculated for Korangi. These higher proportions confirm the overcrowding or high density of population living in both areas. The figures for legal status (occupancy) of all types greatly vary for both Areas.

Table 7.8 (a) Comparison of Findings: Housing Conditions.

A Sample of 80 Households Was Selected in Both Study Areas.

Nature of Problem	Existence of facilities %	
	Area 1 (Lyari)	Area 2 (Korangi)
Types of Houses		
-- katcha	41	36
-- semi-pucca	31	36
-- pucca	23	20
Size of Dwelling		
-- one bedroom	71	46
-- two bedrooms	19	38
-- three bedrooms	4	13
-- more than three	6	3
Size of Household		
-- persons per house	9	7.6
-- persons per room	6.2	4.3
Occupancy Status		
-- Owned	55	34
-- rented	37	17
-- rent free (squatter)	8	49

7.075 The figures show that 37% of sample heads in Lyari have tenant status in comparison to 17% of the same sample in Korangi. A high proportion (49%) of heads of all type households have neither owner nor tenant status, they are living in rent-free houses in Korangi. This confirms that

these heads have illegally occupied plots and built their dwellings in Area 2. The figures for legal status shown in table 7.8 (a), however, confirm the existence of a problem in both Study Areas.

Table 7.8 (b) Comparison of Findings: Service Facilities.

Nature of Problem	Existence of Facilities %	
	Area 1 (Lyari)	Area 2 (Korangi)
Infrastructure		
-- water supply	29	56
-- electricity	80	55
-- piped gas	25	10
-- drainage system	89	39
-- sewage disposal	89	39
-- refuse disposal	88	63
Migration		
-- international	9	16
-- other provinces	4	35
-- same province	1	21
Education (Heads)		
-- literate	45	51
-- primary to diploma	19	20
(Adults)		
-- literate	37	36
-- primary to degree	14	16
(Children)		
-- literate	67	65
-- primary and secondary	19	21

7.076 The figures for components of infrastructure shown in Table 7.8 (b) show that more than 80% of the residents of Area 1 have achieved access to all infrastructure facilities except supply of gas (25%); whereas, the proportion of respondents who presently are enjoying infrastructure facilities in Korangi varies from 10% to 62%. This confirms

the peculiarity of this problem to Area 2. With regard to migration, this table shows that in Korangi 72% of interviewed heads are migrants, whereas in Lyari about 14% of total interviewed heads are migrants. This table also confirms that a very high proportion (56%) of migrants moving from the other Provinces and from the same Province (Sindh) have settled in Korangi.

7.077 The comparison of education level that all the three categories of family members (Head, Adult and Children) possess in Area 1 and Area 2 shows that a high proportion of each category is uneducated. Those heads and adults who have formal education, possess only primary level which does not help them even to get a post of clerk in any private or government offices. This confirms a lack of educational services in Area 1 and Area 2.

Table 7.8 (c) Comparison of Findings: Economic Conditions.

Nature of Problem	Area 1 (Lyari)	Area 2 (Korangi)
Economic Status		
-- unemployed	24%	13%
-- monthly income (mini)	Rs. 800	Rs. 800
-- monthly income (maxi)	Rs. 2100	to Rs. 3000
-- average income (AERC)	Rs. 2158	in katchi abadis
-- monthly expenditure	Rs. 600	to Rs. 2100
-- average exp. (AERC)	Rs. 2109	in katchi abadis

7.078 From Table 7.8 (c) we know about range of income and expenditures of family members living in sample households. This table shows that some 24% and 13% of the total heads of sample households are unemployed in Lyari and Korangi respectively. This table also confirms income disparity and imbalance of expenditures in both Study Areas. (For details refer to paragraphs 7.047 - 7.049)

Table 7.8 (d) Comparison of Findings: Public Participation

Nature of Problem	Respondents		%
	Area 1 (Lyari)	Area 2 (Korangi)	
Public Participation			
-- none have interest	54		29
-- welfare organisation	26		41
-- with help of friends	9		14
-- community as a whole	6		11
-- themselves	0		11

7.079 The Table 7.8 (d) shows the proportion of respondents who confirmed the role that themselves, their friends, welfare organisations and community as a whole have played in the development of their areas. This table shows a significant difference in the proportion of the respondents with regard to participation, co-operation and awareness of development programmes in Area 1 and Area 2. The respondents confirmed that the welfare organisations (41%), households with the help of friends (14%), themselves (11%) and community as a whole (11%) have initiated developments in

Area 2, while a high proportion (54%) of the respondents confirmed that none has been interested in the development of Lyari. Some of the respondents confirmed that none of welfare organisations (26%), households with the help of friends (9%), community as a whole (6%) has played a role in the development of the area of their residence.

7.080 The comparison shows that the people in Area 2 are co-operative, helping each other and participating together; whereas the residents in Area 1 have no interest and are dependent on the welfare organisations. In general both areas are lacking public participation in the whole process of planning and development in Karachi metropolis.

7.081 The AERC's report indicates that fourteen out of twenty analysis zones have ranked water supply as the first priority. The overall second priority is for gas. Refuse disposal and electricity are the other services given a significant priority. Health is reported as fifth in the overall service provision, followed by education. Generally speaking, supply of water, gas and electricity, and disposal of refuse can be components of the infrastructure. In this case the priorities of Area 2 shown in Table 7.7 are similar to those reported by AERC (1988). Except for the first priority, of Area 1- jobs, the others- education, health and housing- match with those of Area 2 and reported by the Applied Economic Research Centre Karachi.

7.082 The following Chapter 8 will deal with a critical review of the National policies adopted by the three developing countries and executed by the Local authorities at metropolitan level in Delhi, Cairo and Karachi. Chapter 8 also will analyse role of the present organisations i.e existing management system and its impact on development in Karachi particularly in two case study areas. The analysis of the present situation in visited katchi abadis dealt with in this chapter, and of the policies and the existing organisations will help in the formulation of preferred policies, and improved management system for effective execution of the modified strategies and policies for solving the problem of katchi abadis in the metropolitan areas of Pakistan particularly in Karachi.

Chapter Eight. A Critical Review of Existing Planning Policies and Process of Implementation in India, Egypt and Pakistan.

INDIA.

Introduction.

8.001 The problems relevant to housing, basic services and infrastructural facilities in India as a whole and in Delhi in particular were described in Chapter 3. The policies and various development schemes adopted by the government of India and executed by the relevant authorities at the State and metropolitan level in order to reduce the density of the problems, and improve the physio-socio-economic status of the low-income settlements in the large cities of the country particularly in Delhi metropolitan area were also explained in Chapter 3 of this study. In this section the author reconsiders these policies and schemes to assess their success and failure in terms of their goals and objectives proposed in the national plans.

Evaluation of Policies and Their Implementation.

8.002 The experience of policy implementation shows that in the early years of partition the government of India established various organisations for providing shelter to those people who moved from Pakistan to India, and

particularly to Delhi. The planning organisations and development authorities at that time built colonies for the settlement of refugees in all the large cities especially in Delhi metropolitan area because Delhi being the capital of newly independent nation received more refugees at the time of partition. The other solutions for housing refugees included single-storey or double-storey colonies of terraced housing. In these single-storey or double-storey blocks of housing small two-roomed units were given to the occupiers on lease, without considering the number of rooms required by evacuated families. In the other attempts at solving problems of the urban poor, the government of India adopted a policy for building houses for the economically weaker sections of society. In view of the national policy, the State Housing Agencies formulated schemes for construction of low-cost houses with the help of the Housing and Urban Development Corporation. The actual number of houses built fell far short of the needs of the poor and failed to reach the poorest amongst them. Sharma (1990) says "Generally the cost and the house provided did not suit the lifestyle of the poor."

8.003 To overcome these difficulties, the government of India shifted strategy to the site-and services projects in which a core was provided consisting of one room, kitchen, W.C., and open space for later additions to the house. This programme has been partly successful. Nevertheless serviced sites on the periphery of the cities, Sharma (1990) says

"costing four to five thousand rupees were considered unsuitable as well as expensive by the poor." The poor were also not satisfied with the long repayment schedules just for the price of land, as they were supposed to invest in house construction for which they had no resources. The relocation of the poor people in the housing projects on the city periphery has removed them from sources of employment in the city. The residents who are moved from the inner city are also cut off from close family and social ties within their neighbourhood. The main cause of the failure of this approach has been the appropriation of housing by a higher socio-economic group instead of the targeted population. In this scheme the time gap between registration for a house and its actual allotment to the applicants is several years and during this period the economic condition of the households may change for better or worse. According to Sinha (1990) "Site and services projects without a core house have not been successful in Lucknow or elsewhere in India."

8.004 The national land use policy as proposed in the Delhi Model of urbanisation, has proved a failure because of inappropriate processes of acquisition, development and disposal of land to the low-income group. This policy could not achieve the objectives of housing the poor and sustain the process of low-income settlements and slum formation in the cities particularly in Delhi metropolitan area. The experience has shown that the government of India policy for urban slums has gone through a number of changes and has now

moved away from refugee colonies, slum clearance and rehousing former slum dwellers in small tenments to site and services and upgrading services in existing slums.

8.005 Since 1982, the government's policy has been to improve the environment in slum areas. Initially this programme was limited to slums on land in public ownership. The package of inputs was the same for each slum and there was little community participation in design, implementation and maintenance of the facilities provided. India also received monetary and technical assistance from the International Aid Agencies like UKODA for the proper execution of project. The success of the Slum Improvement project executed in the city of Hyderabad Dukhan funded by UKODA, was expressed by Lynda Chalker, the Minister for Overseas Development (1990) as follows, "Last month I saw how the project in Hyderabad has transformed living conditions for many poor families. We have been pleased with the results of our collaboration with the Municipal Corporation there that we have extended the projects into a second phase and funded similar schemes in Visagapatnam and Indore."

8.006 Hence the author assumes that the success of programme depends mainly on the training of the local community to understand the importance of the project and their involvement in the execution of the whole project. Considering the success of Hyderabad project, Michael

Parkes, the Senior Planning and Architectural Adviser ODA (1990) says "two more projects in Vijayawada and Calcutta are under consideration." Hence the author suggests that such projects should be encouraged and initiated in the other developing countries to help the governments to improve degraded environments in the metropolitan areas particularly in low-income housing areas within metropolises.

8.007 Looking at experience of policy execution in Delhi from the point of view of success Chandhoke (1986) says "The measures suggested in the plan are not capable of sounding any note of confidence. Delhi in the context of urbanisation and migration needs a definite restrictive policy on a very broad scale." The information about the land use policy-acquisition, development and disposal of land, its execution and consequences- confirms that the slow pace of land acquisition and development has resulted in the formation of a large number of illegal settlements which ULP in Delhi and the Master Plan were supposed to prevent. Acharya (1988) says "It can be seen, therefore, that under the existing set of policy objectives, the DDA has been trying to achieve the impossible."

8.008 With regard to the policy for decentralisation, and establishment of New Okhla Industrial Development Area (NOIDA), the experience of industrial township has shown relative success. In the author's view this is because: Firstly, one single organisation with full authority is

responsible for planning and execution of the project. Secondly, the authority is also empowered to levy taxes and to receive loans from various sources for these purposes. Thirdly, it is designed according to the economic needs of poor people for example, industries provide jobs for low-skilled people. Fourthly, the authority has restricted the allocation of residential land and housing units to certain categories. According to Sinha (1990) "The setting up of NOIDA represents a novel experiment in developing a modern integrated township premised on the need to regularise small-scale non-confirming industrial activities in a congested capital city; and it is one that appears to be proceeding with a real measure of success."

Conclusion.

8.009 Available information shows that India has been taking an interest in solving the problems of those millions who, on their arrival, can build thousands of low-quality houses in the cities, and are looking for improved housing and basic needs. But the evaluation confirms that not all the approaches have been fully successful- some are still in progress for example the Slum Improvement project in Hyderabad and NOIDA near Delhi.

8.010 Hence it is difficult to judge whether these projects are a complete success. Nevertheless the objectives and execution procedure of these projects seem suitable to some

extent for solving the problems of the urban poor. The author, therefore, with the help of evaluation of past and present policies, and of execution process in Delhi, India and Karachi, Pakistan wishes to find similarities between them, and propose modified policies for improvement of the environments in the existing katchi abadis in Karachi metropolis, particularly in the two visited katchi abadis in the context of the social and economic characteristics of residents of these areas. (see Chapter 9)

EGYPT.

Introduction.

8.011 The experience in terms of the processes of migration and settlement, their impact on the existing housing stock, available utilities and services, and the existing situation in the bigger cities such as Alexandria, Ismailia, Port Said and Cairo in particular was described in Chapter 3. The policies and various schemes for reducing the problems of housing and other relevant, which suggested building of a large number of 5 storey walk-up flats having smaller inhabitable spaces as compared to the size of the families, and a wider open space between the two blocks of flats (unofficial opportunity and encouragement to the occupiers for vertical and horizontal extensions, and interior changes in their homes), were also critically examined in Chapter 3.

8.012 In this section, the author reconsiders the information relevant to the factors as mentioned above, analysing it in order to judge the success and failure of the policies and different programmes with respect to the severity of the problem in Egypt. Another purpose of this analysis is to assess the similarities and dissimilarities as between Delhi, Cairo and Karachi in the nature of the problems, their impact on development, and execution of policies. The success and failure of policy as executed in Egypt will help the author in formulating recommendations for reducing the problems of Katchi Abadis in Karachi Pakistan.

Evaluation of Policies and Their Implementation.

8.013 It is already confirmed from the available information presented in Chapter 3 that those constraints having the strongest effect on all sectors of the development in Egypt are the increase in population growth, the limited inhabited space (size of dwelling) and the lack of economic resources. The impact of rapid urbanisation on development in Egypt, as in India and Pakistan, is severe (refer to Chapter 3), indeed the situation in Egypt is more acute due to the inelastic supply of land for agriculture and settlement of hundreds of thousands of people who are moving into the large cities, especially the Cairo metropolis.

8.014 After the political changes of the 1950s in Egypt and the adoption of a policy for installation of big industries such as iron and steel, particularly at Helwan, these industries attracted to Cairo thousands of migrants, placing a high demand on urban housing and infrastructure. In the early 1960s, due to nationalisation of construction companies and the industries supplying building materials, the public construction companies built a large number of housing units on available land to respond to the increasing demand for accommodating large numbers of people in urban areas. Due to high values of land, shortfall in the number of houses provided by the public construction companies, and due to unaffordability of public housing and the general level of poverty the economically weakest groups in Egypt, with the help of their relatives, friends and co-villagers arranged accommodation in tombs, shacks and on the roofs of the flats, and created low-skill jobs to provide their families with shelter, food, clothing etc.

8.015 In the late 1970s, due to some relaxation of the government restrictions on private investment, this sector constructed houses and other properties; but most of their investments were in producing luxurious flats for sale which even the middle-income group could not afford to purchase. On the contrary, since then these small housing units (predesigned) provided in 4-5 storey walk-up flats built by the most prominent construction companies nationally are let to the users at heavily subsidised rents or sold to the

users with the aid of low-interest credits from the Bank of Housing and Reconstruction, to be repaid in monthly instalments over 30 years. An assessment of the prefabricated factory approach to build housing units on a large scale in bigger cities (including Cairo) confirms totally the failure of the policy throughout Egypt because of the reasons explained in Chapter 3.

8.016 The recent experience of site and services, slum upgrading and development of new communities and satellite towns within, around and away from the cities, especially Cairo, in order to decentralise faster growing population and relieve services from unsustainable pressures shows that Egypt has partly achieved the original goals of some of these policies and programmes. Egypt has received funds from international aid agencies (USA and UK), and invited foreign consultants to prepare Master Plans for redevelopment of Cairo, Alexandria, Suez Canal and Port Said. The Master Plans have made various proposals for the execution of development programmes.

8.017 Analysing the development phases proposed in the Master Plan for Ismailia, Forbes (1985) says "The proposals concerning local planning and development were, however, largely ineffective, because there was no mechanism such as training and technical assistance for the innovative externally initiated plans to be developed." On the other hand, there was very limited power with the local authority

over the use of the budgetary grant from central government, which meant that the approvals did not mean anything in practice. The two reasons- lack of training for, and insufficient delegation of authority to, local staff who were supposed to execute the plans caused failure to achieve the goals set out in the Master Plan.

8.018 In the case of demonstration projects i.e the development of plans for upgrading and development of new housing by site-and-services, the experience has shown that both projects failed to achieve the objectives, according to Forbes (1985) "most of the detailed physical design effort was wasted and had to be done again anyway." The upgrading project also had some technical, political and managerial difficulties in the process of its execution. These were, the non-involvement of a consultant in the process of implementation (guidance and training), split of power between the central and local government, and weak support from local implementing authorities. These three hindered the execution of the project, and this in turn limited any positive impact on the development within the affected areas.

8.019 Regarding Kabbutti upgrading project which was funded by the United Kingdom Overseas Development Administration (UKODA), the objectives and programmes mentioned in the plan (refer to Chapter 3) seem potentially attractive and a step towards the solution of the problems which the slum dwellers

are facing at present. Although this project also had faced some political and managerial difficulties in terms of central government's new planning regulations and because, of those who were involved in the original team, three went to the Gulf, one to Cairo, one to New York and others to the better-paid private sector. But due to this project being home-grown i.e. initiated by the pressure from the local community leaders and supported by the Governorate, this has achieved partial success. The available information shows that the first area of site-and-service plots for relocation has been completed, serviced and sold to the villagers.

8.020 On the other hand, roads in the existing village have been improved and investment by the residents in their houses is happening more and more. Some 20 families, perhaps frustrated by the lengthy process of official implementation in the village, have filled the low-lying areas around their dwellings and laid sewers from their houses to the canal. According to Rowland (1985) "The whole area of project management and training people to be able to understand and implement an upgrading project is lacking."

8.021 The experience of Worker's City near Helwan, some 35 km south of Cairo, which was initially built for the settlement of industrial workers in 1960 is described in Chapter 3. The evaluation of the Worker's City is based on the results of a survey conducted as a Joint Research / Teaching Project by the Schools of Architecture in the

Universities of Helwan (Zamalek) and Newcastle-upon-Tyne, sponsored by the British Council in 1985.

8.022 The results of the Joint Research Project are used by Wilkinson and Kardash (1991) for their recent study of three different public housing projects (Worker's City, El Tebbeen Marazzik Housing and Imbaba Nasser Housing) for a comparison between the three projects, and finding some major changes, that have taken place particularly in the housing in Workers City during the period of five years. The comparative study explains the reasons for and methods of the different qualities of user's self-help extensions to their houses that are developing in different public housing projects in Cairo.

8.023 During the last 24 years, the residents have made alterations to the original structure of their houses. The extensions depended on the user's need and wealth. The results of both surveys have confirmed that more extensions have been made to two bed-roomed flats. Those built with three rooms have not been affected to any great degree by 1985, or even by 1990 (Kardash, 1990). The extensions depended on auxiliary resources which were: borrowing from the contractor i.e credit; selling jewellery; borrowing credit free from co-workers; and joining a savings club (run mostly by women, presently practised in Katchi abadis particularly in Lyari, Karachi). The process of extensions is either individual or collective / communal.

8.024 Both individual and communal types are represented in Worker's City and El Tebeen whilst in the Imaba project only the individual type is found. On the other hand, the form of extensions taken in these housing projects is also affected by the attitude which the local authority takes towards the extension process. When the attitude of the local authority is relaxed enough this encourages a communal and collective type of extension resulting in a better-quality extension and a better quality of environment. On the contrary, when the local authorities have been strict in enforcing building rules and regulations i.e. prevention and protection by law and order, a feeling of insecurity develops and the type of extension would be individual.

8.025 It is clear from the evaluation of the Worker's City and other housing projects in Egypt that this phenomenon will take place whatever attitude the local authority takes. In view of Wilkinson and Kardash the households in these areas would benefit greatly if they were given the support by easy access to information on organisation, management, finance, and planning and building procedures. In their view the government should act as a legalising power and as a provider of services. A decree is required to reform land from the public domain to land which can be obtained by individuals for development purposes.

8.026 The analysts recommend that this should be made available through a local 'on-site' office run by the local authorities. Such a local on-site office could act as:

1. an intermediary body between the government and the contractors. This office could hold legalising powers instead of direct governmental authority such as the local council. This would help towards avoiding major governmental bureaucracy. Generally speaking it should act as a type of agency which is responsible for core housing projects;

2. a coordinator between a) users and contractors as the developers of extensions and b) the government as a service, land and utilities suppliers;

3. a maintainer of cost efficiency of the project as a whole
The money made out of the sale of land required for extensions should contribute towards the recovery of cost;

4. offering immediate technical advice to the developers, users and contractors in structural design and extension planning. This would cover comprehensive planning for the whole project;

5. the dissemination of house planning and project information in an accessible and understandable form. Information should make residents more aware of mistakes and successes using visual aids such as slide documentation;

6. cutting down the costs by having access to controlled construction materials (cement, iron and glass) at their official prices. This would be a very essential role for the Project Office to play on behalf of the users; and

7. the office should be able to intervene in the case of problems raised between neighbours and should try to resolve them;

8. the project office should encourage both the saving and borrowing processes within the market rates of interest. A system of package deals might be appropriate whereby the users have to save up a certain amount of money before they can borrow;

9. Land available for extensions should be clearly defined and a classification of land use and land ownership should be provided through detailed layout plans.

8.027 In the view of analysts, these recommendations would have implications for old projects such as Helwan, El Tebeen and Imbaba which were built NOT to be extended. However they shall also have implications for the housing stock in the New Cities such as the Fifteenth of May, Sadat City, Sixth of October and Tenth of Ramadan new cities and many other new developments, which have already started to show signs of extensions by the residents but which are not yet allowed or fully developed.

8.028 In the author's view the findings of the evaluation of the policies and programmes adopted by the government of Egypt, executed by metropolitan authorities, and the present system of self-help development in Egypt will help in finding some differences in policy execution as between Karachi and Delhi. (see Chapter 9)

PAKISTAN.

Introduction.

8.029 In the preceding part of the study, the diagnosis of the results of empirical data and a comparison of these in two Areas showed the existence of various physical, social and economic problems such as overcrowding, inadequacy of basic services and infrastructure, widespread poverty and lack of public participation in Area 1 and Area 2 of Karachi (refer to table 7.1). The results also indicated disparities in the distributional pattern of the physical, social and economic facilities; and inadequacies in the same where some provision was made.

8.030 In order to achieve the above objective, the policies and programmes adopted and implemented by the Government at the National, Provincial, Metropolitan and Study Areas level to eradicate the problems as identified in the previous part of this study are reconsidered in this chapter. With the aim of reconsidering policies and programmes, the author also

evaluates functions of the national organisations, and each provincial and metropolitan departments which are directly or indirectly involved in the management system i.e in the implementation of these policies (refer to Chapter 5).

8.031 This evaluation of the past and existing planning policies and of management system shall help the author to explore and evaluate the validity of policies, impact of policies on the development at metropolitan and study-area level, problems faced by the Authorities in execution of policies, reasons for the failure of these policies, and strengths and weaknesses of the system relative to Pakistan.

Evaluation of Past and Current Policies in Pakistan.

8.032 The policies for housing and physical planning and socio-economic development at national level, and for overcoming the problems of katchi abadis in the metropolitan areas of Pakistan are explained in Chapters 3 and 4 of this study. The details about housing and housing units (%) having various basic service facilities are presented in Tables 8.1 and 8.2. The impact of national policies on the development process at provincial, metropolitan and study areas level is summarised in Table 7.3.

Table 8.1 Details About Housing at National, Provincial, Metropolitan and Study Areas Level in Karachi Sindh Pakistan. n.a = not available.

Level Indicators	National Pakistan		Provincial Sindh		Metropolitan Karachi		Study Areas	
	Urban		Urban		Urban		1	2
Structure								
Katcha	62%	n.a	38%	n.a	36%	35%	41%	36%
Size of Dwelling								
1 room	50%	n.a	61%	46%	45%	43%	71%	46%
2 rooms	30%	n.a	24%	31%	31%	32%	19%	36%
3 rooms	11%	n.a	9%	13%	14%	15%	4%	13%
4 rooms or more	9%	n.a	6%	10%	10%	10%	6%	5%
Size of Household Person/House	6.5	6.8	6.8	6.9	6.7	6.8	9.0	7.6
Density person/sq km	111	n.a	135	n.a	2323	3000	n.a	n.a
Tenure								
owned	n.a	n.a	76%	66%	65%	65%	55%	34%
rented	n.a	n.a	12%	23%	26%	27%	37%	15%
rent free	n.a	n.a	12%	11%	9%	8%	8%	49%

8.033 Table 8.1 is self explanatory and it confirms,

(1) The deterioration of houses i.e more than 33% of houses are of katcha type in Sindh, Karachi and study areas.

(2) On average 43% of all dwellings in Karachi urban area are one-roomed. The highest proportion (71%) of dwellings having only one room are in Lyari, Karachi. The proportion of dwellings having three rooms ranges from 4% (Lyari) to

15% (Karachi urban). The dwellings containing four or more rooms are only from 5% (Korangi) to 10% (Provincial urban).

3. The size of household varies from 6.8 persons per household (average for all urban areas of Pakistan) to 9.0 persons per household (in Lyari, Karachi). The statistics shown in 2 and 3 confirm the problem of size of dwelling and overcrowding or high density in the country.

4. The classification of tenure status shows 66% of dwellings in Sindh urban area and 34% in Korangi are owned by occupants, more than one third (37%) of houses are rented in Lyari as compared to 23% (Provincial urban); and 49% of houses in Korangi are rentfree (squatters) in comparison of 11% (Provincial urban). The statistics shown in Table 6.1 confirm that only a small number of the residents in Lyari have obtained a certificate of ownership (security of title) as compared to the number of residents in Sindh Province and in Karachi as a whole. On the other hand in Korangi, the proportion of squatters (49%) is much more than the proportion of squatters in Karachi urban (8%) and in Sindh Province urban (11%). This confirms the problems of security of title which is common to both Study Areas, whereas the problem of squatting is particularly severe in Korangi.

8.034 With regard to amenities, basic services and other facilities that the citizens enjoy at national, Provincial, metropolitan and study areas level presented in Table 8.2 are explained and assessed as under.

1. Overall 80% of the urban population of the country are provided with proper (piped) water supply. A high proportion (80%) of the houses in Sindh and a very low proportion (19%) of the houses in Lyari enjoy this service. On the contrary, the majority of houses in Study Area 1 get water from hand-pumps installed in houses (cheaper source). Some 24% and 25% of households in Korangi and Lyari respectively collect water from other sources as compared to 3% of households in Sindh urban area and in the whole of Karachi.

2. With regard to facilities in houses, a lower proportion of houses have kitchen, bathroom and latrine facilities in the Study Areas as compared to Sindh urban and Metropolitan urban areas. This shows that the houses in study areas are lacking behind the basic facilities.

3. In Lyari, more houses (80%) are connected with electricity than in Sindh (68%) and in Karachi urban area (73%). On the other hand in Korangi a lower number (56%) of houses are served with mains electricity. This confirms the partial success of Slum Improvement Project in Lyari, and demand for effective implementation of such projects in Sindh urban, Karachi urban and particularly in Korangi.

4. Piped gas in both Lyari and Korangi is available in 24% and 6% of houses respectively against gas supplied to 30% and 36% of houses in the urban areas in Sindh and Karachi respectively. Although, the comparison shows that a very low proportion of houses have been supplied with gas in Korangi

as compared to the Provincial and Metropolitan urban, and to Lyari. But in general the statistics confirm that there is a great need of gas supply in the country as a whole.

5. With regard to sewage and refuse disposal services, the data presented in the table 8.2 shows that about 39% of houses in Korangi are connected to piped drainage. This proportion of houses is lower than the proportion (88%) of houses in Lyari, 48% in Karachi urban and 52% in the country. This confirms that Lyari needs some improvements in existing services whereas Korangi and other parts of Karachi need development programmes for provision of these services on a large scale.

Table 8.2 Housing Units (%) Having Various Basic Service Facilities at National, Provincial, Divisional and Study Areas Level in Karachi, Sindh, Pakistan.

Level Services	National Urban		Provincial Urban		Metropolitan Urban		Study Areas	
	1	2	1	2	1	2	1	2
WATER SOURCE								
pipe	16.6	80.0	40	80	90	91	19	66
hand pump	n.a	n.a	28	15	5	5	56	10
well	n.a	n.a	13	2	2	1	00	00
others	n.a	n.a	19	3	3	3	25	24
FACILITIES								
kitchen	n.a	n.a	n.a	65	73	73	44	60
bathroom	24.0	n.a	n.a	72	80	80	40	49
latrine	34.0	n.a	n.a	84	88	88	60	45
AMENITIES								
electricity	33.0	n.a	36	68	66	73	80	56
pipe gas	18.0	n.a	13	30	34	36	24	6
OTHER SERVICES								
pipe drainage	n.a	52	n.a	n.a	n.a	48	88	39
refuse disposal	n.a		n.a	n.a	n.a	66	88(47)	62

8.035 The summary of National Policies and their impact at Provincial, Metropolitan and Study Areas level (see Table 8.3) for solving the problems of housing and service facilities confirms that in the early years following Independence, the Government of Pakistan aimed at the establishment of organisations, local authorities, departments and other institutions to formulate and implement the planning policies at Provincial and Local levels in the urban areas. The concerned Authorities had tried to solve the problems of the refugees and of the displaced families simply by providing shelter and jobs.

8.036 Afterwards the Government invited foreign consultants to help the local staff to prepare plans for Metropolitan Areas and propose solutions to the problems of the settlements. The International Agencies provided technical advice and introduced western technology for development in the urban areas of the country, ignoring the social and economic characteristics of poor people who would be settled in these developed areas. Satellite towns (Korangi, New Karachi and Latifabad) were proposed and developed a great distance away from the centre of the city; and people were asked to move into these settlements before the provision of basic services and before jobs become available in these areas.

8.037 Later, the Government of Pakistan realised that the policies for constructing houses in various parts of the

large cities and the development of satellite towns at long distances from the cities had helped very little in overcoming the problems of human settlement. Hence the Government had to change its attitude towards the problems of poor people. Instead of the demolition of houses and relocation of the affected families by moving them to other developed areas (in practice undeveloped), the Government introduced another policy of 'Upgrading existing katchi abadis' under the "Improvement Programme." Since then (1978), the same policy has been repeated in the country under different titles. Presently, the Seventh Plan has also proposed the Regularisation and Improvement of katchi abadis under the 'Katchi Abadi Development Programme'.

8.038 The two wars (1965 and 1971) also affected the objectives of the Plans and their implementation in the country. In 1971, the movement of people from Bangladesh to Pakistan, (to Sindh and Karachi in particular) restricted the development in the Province and in Karachi.

8.039 The different Governments (Martial Law, quasi-political), National, Local elections and dissolving of Assemblies (parliaments) badly affected the objectives of the National Plans. These changes created hindrances to implementation of plans. The various policies stated by the President and the Prime Minister had encouraged the poor to develop katchi abadis in the large cities of the country, particularly in Karachi.

Table 8.3 Impact of National Policies on Province (Sindh), Karachi Metropolitan and Study Areas.

Scale Period	National Plans	Others	Provincial	Scale Period	METROPOLITAN (KARACHI)	STUDY 1= LYARI	AREAS 2= KORANGI
1947-50	ACCOMMODATING INDIAN REFUGEES	--	distributed refugees esp. to large cities.	1947-50	accommodated refugees--- land, buildings, barrack	8% refugees 10% nearby.	15% refugees 52% nearby.
1950-55	HOUSING ESPECIALLY FOR REFUGEES	--	reorganization of Govt Depts. 12.5 K plots for refugees.	1950-55	'50 KIT--flats+utilities +housing. '55 M/S Mery + KIT--Greater Karachi Plan.	-flats too- expensive	nil
1955-60	'58 COUP. CAPITAL TO ISLAMABAD. RELOCATE SLUM DWELLERS	AGRO-INDUS TRIAL. --	rebate to farmers, industrialists-- migration esp. to Karachi	1955-60	'57 KDA, '58 lost capital 100 K migrants, two towns +industry--relocate squatters	nil	industrial town--400 K squatters.
1960-65	NEW CAPITAL, PLANS FOR 20 CITIES, HOUSES FOR GOVT. SERVANTS	--	Plan for Hyderabad. houses for employees.	1960-65	plots, housing and three townships near industrial estates (SITE).	nil	nil squatters returned.
1965-70	'65 INDIA-PAK WAR '68 YAHYA KHAN '70 ELECTIONS '70 JRP SURVEYS	--	no implementation of development plans provincial capitals.	1965-70	'65 war--destruction, '70 elections--distrubance, '70 JRP-surveys of slums--- KDA-- plots in townships	study of	slums
1970-78	HOUSING HOMELESS '71 INDIA-PAK WAR LOST BANGLADESH '72 BHUTTO REGIME AD-HOC PLAN 73-78 HOUSING 5 TYPES + PLOTS. '77 POLLS '77 ZIA-UL-HAQ	--	nil attacks on east-south Bangladesh-- refugees demand to accommodate refugees--ethnic riots mass crisis in cities destruction-- burden.	1970-78	UNDP+KDA--plan 74-85-2001 metrovilles and upgrade slums. '71 war--Bangladesh '72 Bhutto--JRP-- plans '77 polls--ethnic riots, mass crisis-- ZIA coup.	services, hospital.	refugees from Bengal, Behar
1978-83	UPGRADE ENVIRONMENT, LEGALITY, SERVICES, PLOTS+ HOUSING--- POOR	ZIA 'LEGALISE SLUMS' PRE JAN '78 '79 POLLS	DSKA in three cities, legalise slums pre 78 surveys, site & service MLOs- remove slums 78+	1978-83	DSKA+KMC study in slums. KDA developed plots and constructed houses for labour near industries.	nil	nil
1983-88	NEW CAPITAL, URP, BR INSTITUTES, HOUSING, SERVICES. '85 FEDERAL POLLS JUNEJO PRIME ---	LEGALISE SLUMS--- '78 + pre 1985 REBATE FOR UNABLE.	enhanced powers--SKAA rapid surveys in slum study in slums. housing for Govt. staff	1983-88	DSKA---- socio-economic study in 16 slums pre 85 legality and upgrading of slums post 1978.	nil	nil
1988-93	ACCOMMODATE GROWN POPULATION. HOUSES, UTILITIES--UPGRADE ENVIRONMENT--IN KARACHI + LAHORE	--	accommodate migrants to cities, housing, upgrade slums--utilities, schools, roads, dispensary, disposal.	1988-93	review of Karachi Regional Plan 1974-85-2001. slum eradication--study, evaluation, public participation and solutions.	unknown	unknown

Evaluation: Impact of Existing Policies and Procedures on Development in Karachi and in Study Areas in Particular.

8.040 In order to evaluate this impact, the author refers to Table 8.3. (For details refer to Chapter 3, 4 and 5). This table shows that in view of national policies, in the earlier years of independence (1947-50), the metropolitan authorities provided the refugees with Government buildings, properties vacated by Hindus and other vacant land in the city, and arranged special camps for the migrants. During this process of settlement of displaced families, Lyari, an old part of the city received about 8% of the refugees. Some 10% of the refugees were settled in the areas adjoining Lyari. In the early years of Independence, Korangi was open land. About 15% of the refugees had occupied land in Korangi on their arrival in Karachi, and 52% heads of the present dwellings were settled on the vacant land near Korangi or in other parts of Metropolitan Karachi. (refer to results of the author's survey in Chapter 6 of this study)

8.041 To solve the problem of housing refugees and displaced families and to provide them with the basic services, in 1950 the Sindh Government, established Karachi Improvement Trust (K.I.T). The K.I.T built multi-storey flats on the land occupied by the refugees to solve the housing and relevant problems. The Trust also undertook some development schemes of water supply and sewerage systems. Under these

programmes only in the South-West of Lyari, 10-storey flats were constructed on the land occupied by the refugees. But due to the absence of water and high costs, the low-income families could not afford to live in these flats. The middle-income people occupied these multi-storey buildings. There was no development in Korangi.

8.042 In the earlier half of 1950s, with the assistance of foreign consultants the KIT prepared 'The Greater Karachi Plan' for solving the housing and other relevant problems on a large scale. On the recommendation of the Greater Karachi Plan (1955) Karachi Improvement Trust (KIT) was upgraded to the Karachi Development Authority (KDA) (1957), responsible for the housing problem of refugees and the development of large areas. After the two years of establishment of KDA, the three decisions made by the Military Government (refer to policies in Chapters 3 and 4) badly affected the planning and development of Metropolitan Karachi. Firstly, Due to shifting of the Capital to Islamabad the metropolis lost its capital status. Secondly, despite the shifting of the capital, the city was chosen by the Military Government for the establishment of industries. Because of this decision, Karachi had to receive a hundred thousand migrants from the north of the country and also other parts of Sindh Province. Thirdly, under the slum clearance programme the houses of the poor located in the central parts of the city were forcibly demolished. The poor were asked to shift to the

proposed new towns, where there were neither adequate facilities nor jobs suitable for them.

8.043 During the five year period from 1955 to 1960, on the recommendations of Greater Karachi Plan, Study Area 2, Korangi was developed as a Satellite town to accommodate 0.4 million people shifted from the central parts of the city.

A huge complex of various industries was established in the vicinity to provide shelter and jobs for the poor jobless.

(The reasons for failure of the project and return of the poor back to the city are explained in Chapters 4 and 6.)

Meanwhile no development took place in Study Area 1 (Lyari).

8.044 During 1960-1965, Karachi Development Authority (KDA) developed residential plots for the people of different income-groups. The KDA, in addition to Korangi, made an attempt to develop three more townships: Baldia, Orangi and Qasba near to Sindh Industrial and Trade Estate (S.I.T.E.). During this period, in view of the policies and programmes stated in the National Five Year Plan, the Government of Sindh Province and the Metropolitan Authorities had made no attempt to solve the problems of the poor many of whom lived in the two Study Areas.

8.045 In the period of five years (1965-1970), the Metropolitan Authorities continued the development of the three townships handed on from 1964 (Baldia, Orangi and

Qasba). In the joint research programme, the Karachi Development Authority's staff helped Dutch experts to carry out the surveys in slum areas of the city, both Lyari and Korangi were surveyed. The JRP Committee on the basis of the survey results, recommended Lyari to be at the top of the list for 'Slum Improvement' in the city.

8.046 During 1970-1978, the joint efforts of a team of KDA's staff and experts from the United Nations Development Programme created the Master Plan for Karachi Metropolitan Region 1974-1985. The Karachi Development Authority preferred the major component (Metrovilles) of the Master Plan for solving the problem of housing in existing slum areas. The first Metroville was developed with 4387 plots. In addition to the Metroville Project the K D A introduced the slum improvement programme to improve the environment in existing slums. The slum improvement programme consisted of 'regularisation' and 'improvement' of existing katchi abadis in the metropolitan area.

8.047 During the period of the Bhutto Government, (1971-77) in response to the recommendations of the Joint Research Committee, the Planning and Development Department prepared programmes for the development of Lyari. The Authorities launched schemes for water supply, drainage and electricity in Lyari. Lyari General Hospital was also constructed by the Bhutto Government (refer to results of the author's survey);

whereas in the same period no development was carried out in Korangi. On the contrary a large influx of refugees from Bangladesh (generated by the second war between Pakistan and India in 1971) settled in this area (refer to results of the author's survey in Chapters 6 and 7).

8.048 For the implementation of policies mentioned in the fifth National Five Year Plan (1978-1983) and policy statement issued by the President of Pakistan, Sindh Katchi Abadis Authority (permanent organisation) and Directorate of Katchi Abadis were established for solving the problems of katchi abadis in the Province and in the metropolitan area. To help the Directorate, an extension wing of the Directorate of Karachi Katchi Abadis was set up in the office of Karachi Metropolitan Corporation. Under this extension a research and evaluation cell was established to conduct surveys in the katchi abadis of Karachi and analyse collected data for the purpose of regularisation and improvement of katchi abadis.

8.049 On the basis of survey results, Baldia was chosed for implementation of improvement programme. At the same time, under Martial Law Orders 130 and 202, some encroachments were removed in the city. The available information for the period 1978 to 1983 shows that no authority- Provincial Planning and Development Department, Katchi Abadis Authority and its Directorate or Metropolitan Corporation- has made

any effort for development in either Lyari or Korangi study areas. On the other hand, due to President's statement more katchi abadis were developed in the city. Korangi received more new comers (refer to author's survey).

8.050 During the visit to Karachi the author had a detailed discussion with the Director of Directorate for Karachi Katchi Abadis. On the personal request for fresh information and documents about the planning and execution process, Mr. Shahid provided the author with document prepared by the Dutch Advisory Mission 1979 and confirmed that this process is being implemented for the purpose of planning and implementation in Karachi. After the enhancement of the powers and nomination of the members to the Governing Body of the Katchi Abadis Authority (1986) the Directorate of Katchi Abadis in collaboration with the Karachi Metropolitan Corporation had conducted a socio-economic survey in katchi abadis in Karachi (refer to AERC's analysis 1988).

8.051 The comparative assessment of the findings of surveys conducted in selected katchi abadis shows that surveyed settlements accommodate from 167 people to 26.6 K population on areas ranging from 0.6 to 71.2 hectare. Of the total selected katchi abadis 43% were developed between 1947 and 1954, and the remaining 57% settlements were developed by 1978. Some 68% of the population belongs to the labour force. Of the total surveyed population about 56% speak

Pushto and Punjabi languages. More than 55% of settlements developed in 1978 and 56% speaking Pushto and Punjabi confirm the migration from the North West Frontier and Punjab Provinces towards Karachi.

8.052 In the Seventh Five Year Plan (1988-1993), it is proposed that the Master Plan for Karachi Metropolitan Region (1974-1985) will be reviewed and prepared. A specific role will be assigned to the Project Area Committee. The katchi abadis will be grouped into Project Area Committees for execution. Extension wings at project area level and research cells in the municipal bodies will be set up to carry out research and recommend solutions; and the efforts of the public sector will be supplemented by community-based non-Governmental organisations (NGOs). The National Plan indicates no specified programme for the Study Areas. The Provincial and Metropolitan Authorities will decide for themselves what kind of development they do in the Areas.

Conclusion.

8.053 In the beginning of this section, the author has assessed past and current policies adopted by Pakistan, and executed by the Provincial and metropolitan authorities. Thereafter the author has evaluated the impact of existing policies and of procedures (management system) on the

devenelopment in Karachi and in the two case study katchi abadis in the metropolitan area. The evaluation confirms:

Pakistan had two wars with India which resulted in loss of lives, disturbance to normal life, destruction to properties and a heavy burden on the national economy. In 1971, war created Bangladesh and caused migration of thousands of refugees which consequently became a constraint to the proper implementation of policies in Pakistan for solving the problems of katchi abadis in the whole country, particularly in Karachi metropolitan area.

Pakistan being a Muslim country, having common border with Afghanistan and having citizens of Afghan culture in the North West Frontier Province (NWFP), received a large number of 3.5 M refugees from Afghanistan. With the help of local people (Pathans), the Afghan refugees settled in all parts of the country. This pattern has very badly affected the political, social, economic and planning system in Pakistan. The situation in larger cities of the country is becoming worse, planning and other departments have difficulties in tackling the problems of katchi abadis.

8.054 The evaluation of present national policies and of structure and functions of existing organisations and departments which are responsible for implementation of these policies at metropolitan areas further confirms that

the Government of Pakistan has neither an effective policy nor an adequate management system for overcoming the problems of the poor in katchi abadis, which settlements exist and are largely increasing in the urban areas of the country.

8.055 On the basis of the weaknesses or failure of the past and current policies or attempts made by the Government of Pakistan and executed by the Provincial and Metropolitan Authorities, therefore, one can conclude that there is an urgent need for suitable policy options and a special executive authority to solve housing problems, inadequacies in basic services and infrastructural facilities throughout the whole country, in the larger cities such as Karachi, Hyderabad, Lahore, Peshawar, Quetta and other rapidly growing cities and in two case study areas in particular. The strategies including various policy options for solving the problems in katchi abadis and an specific Authority for execution of these policies will be discussed in the following Chapter 9.

Chapter Nine. Policy Options and Their Implementation for Reducing the Problems in Study Areas- Lyari and Korangi.

Introduction.

9.001 In the beginning this study has argued that due to a) overpopulation, b) limited resources, c) eagerness to escape from the limitation of traditional environment, and absence of basic services in rural areas, the people migrate into urban areas. On the other hand, because of i) increase in the urban population (due to natural growth and migration), ii) the rapid urbanisation of the cities, iii) limited resources, and iv) lack of funds, the governments of the Third World are incapable of providing decent shelter, adequate service facilities and employment opportunities to all the urban dwellers which items are thought to be the basic needs for the survival of all human beings.

9.002 This study further argued that due to high cost of developed land in the central parts of the cities, shortage of housing and lack of job opportunities for skilled and unskilled labour pool in formal sectors, with low purchasing power and mostly being unskilled, the urban poor people are forced to accommodate themselves in a new kind of settlement known as low-income housing areas or katchi abadis. During the periods of different governments, these settlements have developed dynamically and turned into major slum areas in the metropolitan areas of many Third World countries.

The problem of human settlement in the large cities of developing countries, particularly Karachi, Pakistan is becoming increasingly serious day by day. At present it appears that most of the Third World countries have accepted these low-income settlements and slums as an unavoidable part of the urbanisation process (refer to Table 1.3).

9.003 The conditions in which people live determine to a great extent their health, well-being and ability to engage in gainful occupation; also their ability to seek self-improvement, and in consequence, to attain a better standard of living. The study also considered and discussed the issues of housing, urban development and employment which have already been under debate during United Nations conference on human settlement in 1976. The conference declared that "The improvement of the quality of life of human beings is the first and most important objective of every human settlement policy." In view of this declaration, the study considered the problems of existing poor urban areas as the basis for investigation, with a view to suggesting alternative and effective solutions to the implementing authorities for solving these problems in the Third World as a whole, and particularly in Pakistan.

9.004 To achieve the objectives (refer to Chapter 1), the study set out organisation of work (refer to Figure 1.1), for studies of the physical, social, economic and historical aspects of the low-income housing areas- process of

transformation into slums, and critical examination and evaluation of the policies adopted for overcoming the problem in India, Egypt and in Pakistan in particular at national and metropolitan levels. The study also adopted a methodological approach (refer to Figure 1.2), to collecting empirical data from the two selected katchi abadis in the Karachi metropolitan area.

9.005 The study reviewed available literature about the nature of the problem, development of low-income areas, process of slum formation and its effects on the physical, social and economic development in the metropolitan areas of the developing countries. Review of the literature helped the author to sketch a sequence of consecutive elements that are involved in the process of slum formation in the metropolitan areas in the developing countries (refer to Figure 2.1). The study also described various policies and schemes adopted by the developing countries for solving the problems of slums, particularly Site-and-Services and Improvement or Upgrading of existing settlements.

9.006 For learning more in detail about the process of slum formation, its impact on the development, and the policies for solving the problems of housing, urban development and employment, by the governments of India, Egypt and Pakistan at national and metropolitan level in particular, the study has adopted a number of methodological approaches to achieve the objectives mentioned above. In the light of experience

gained from the three developing countries and their primate cities this study examined the existing situation in the two katchi abadis of Karachi metropolitan area in order to know about the actual process of the development of these two human settlements and then transformation into slums. This study has analysed the data collected from two case study areas and compared these results with other studies. In the whole sequense of work the study has adopted different approaches. These are exploratory, descriptive, explanatory and evaluatory. The exploratory aspect of study was concerned with the nature of the problem, the descriptive aspect with understanding the size, distribution and effects of the problem. The explanatory aspect made it possible to establish a relationship between the problem and policies adopted for solving the problem; and then evaluatory aspect provided an opportunity for diagnosis of the real problems of the slum dwellers and for assessment of a) the policies applied and b) the authorities responsible for the implementation of these policies for solving such problems of the urban poor. From above the study has confirmed that in Pakistan katchi abadis are developed under various conditions during the periods of different governments.

Distinctive Features of Katchi Abadis (Slums) in Pakistan.

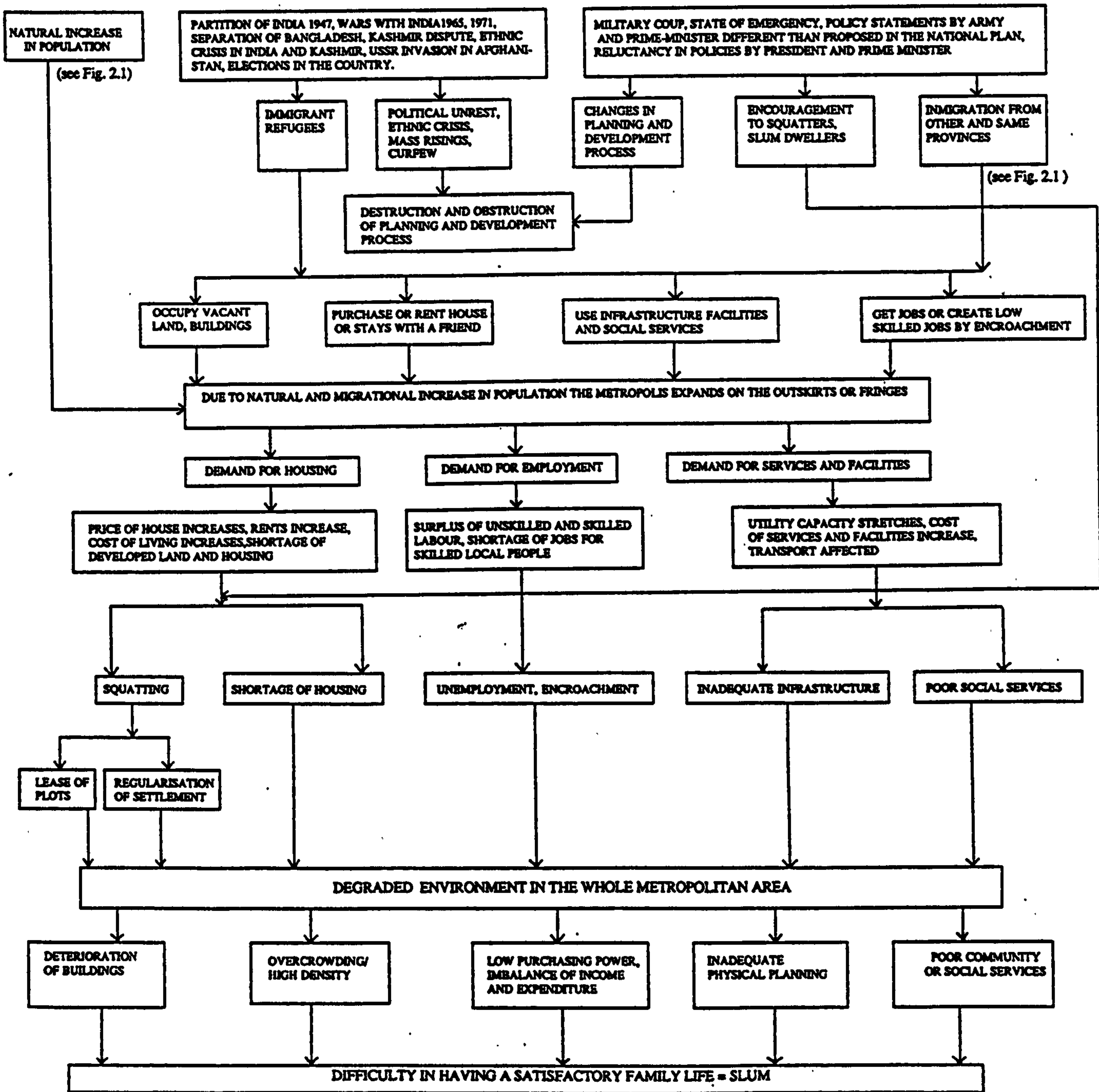
9.007 A comparative study of the process of slum formation in the developing countries (refer to Figure 2.1) and the

actual process in the metropolitan areas of Pakistan (see Figure 9.1) confirms the following differences.

1. The urban issues related to housing, urban development and employment in Pakistan have emerged right from independence (1947). The arrival of refugees from India (1947) and later from Bangladesh (1971) resulted in a substantial increase in the country's population, particularly in Karachi, and this created a commensurate increase in demand for adequate shelter, infrastructure and other community services, and for jobs for both skilled and unskilled people. The migrants from India and Bangladesh have relatives in the countries of their origin. The refugees want to bring their relatives into Pakistan, particularly to Karachi Sindh whereas the indigenous people (Sindhi) oppose these demands. As a consequence there is an ethnic clash, and the Government has to impose curfews in the urban areas. All these elements are important to the formation of slums in Pakistan.

2. The Soviet invasion of Afghanistan, a neighbouring country of Pakistan led the people to migrate from Afghanistan to Pakistan. These immigrants are settled in all parts of the country but particularly in the North West Frontier Province. Because of these 3.5 M or so refugees, the total population of the country has increased, and consequently there is an increased housing shortage, a greater pressure on services and a heavier burden on the economy of the

Figure 9.1 CONSECUTIVE ELEMENTS INVOLVED IN THE PROCESS OF SLUM FORMATION, THEIR EFFECTS ON THE METROPOLITAN ENVIRONMENT AND PROPOSED METHODS TO OVERCOME THE SLUM IN PAKISTAN



country. These factors have accelerated and extended the development of katchi abadis in Pakistan.

3. Due to the frequent elections held in the country, the residents of katchi abadis bargain with the political leaders for inclusion of the katchi abadi in electoral list on a promise to vote in favour of political leaders. The politicians approach the officials and when the abadi is recognised by any government office then it has to be considered for development in the future. On the other hand, the staff of different departments- planning and development and other utility agencies, are engaged in the election campaign. This causes delays in the execution of programmes for development in the metropolitan areas. Unfair elections (rigging of vote casting and other local means), political and ethnic clashes between supporters of two different politicians cause mass demonstrations and loss of lives. Because of the damage to property and places without special security, people move within the city, and squatting takes place on a large scale. Finally, this leads to the formation of slums in the metropolitan areas.

4. The policies announced by the Head of State (over and above those proposed in National Plans) have encouraged immigration and the process of slum formation, rather than condemning and preventing their occurrence in the country's metropolitan areas. In 1958, due to the introduction of an agro-industry policy by General Muhammad Ayob Khan, the

urban poor and industrialists compromised. The poor agreed to work for low wages and the industrialists gave protection by allowing them to settle on the land beside their industrial premises. In 1978, due to a policy for regularisation of all katchi abadis in the country, announced by General Muhammad Zia ul Haq, the President encouraged speculators to subdivide public land and develop more katchi abadis, because they assumed that after a few years there will be a change in government, and the President or Prime Minister will take a decision for development of katchi abadis in order to get mass support. This happened again in 1986, when the quasi-political Prime Minister, Muhammad Khan Junejo regularised all the katchi abadis that have been developed during the seven year period of Zia's regime (1978-1985). Karachi has been affected more and more by these policies.

5. Due to insufficient funds available for the development of new settlements, the projects like satellite towns and Metroville were abandoned. On the other hand, due to wars, frequent elections, poor management, political influences, personal approaches and favouritism from bureaucrats to the rich people, the available funds for development and improvement of existing katchi abadis are either withdrawn or these funds are used somewhere else in the city, instead of in approved katchi abadis in the metropolitan area. Hence the urban poor are forced to build cheap houses, and gain access to service facilities through politicians, local

community leaders or by offering bribes to officers concerned.

6. From the very beginning because of (a) inadequate organisation (b) the involvement of different agencies in the process of planning and execution (c) non-coordination of inter-agency and intra-departmental affairs, the policies and programmes for overcoming the problem of katchi abadis have not been properly implemented. This has encouraged the process of slum formation in the metropolitan areas.

7. Improper execution of the inappropriate policies for the solution to the slum problem have made housing and services unaffordable to the poor, whether immigrants or inmigrants. Hence they are encouraged to squat on vacant pieces of land, build their own houses and gain access to services through one or other means. Consequently, there is a substantial increase in the number of katchi abadis (slums), the environment of the whole metropolis is degraded and the problems of katchi abadis are left unresolved. Presently some 432 katchi abadis covering a total area of 60 sq km (90% of which belongs to federal or state land) exist in Karachi metropolitan area.

Social Structure of Residential Environment.

9.008 Throughout human history man has struggled and used his initiative and resources to create his own sheltered environment. Man has lived in a fundamental unit of social

life: the family. Due to the increase in family size, and their needs and aspirations, there has always been a demand from people living in low-income settlements for better shelter, basic needs and other social services. Man has been forced to relate to other human beings, organise a group of people to achieve their demands and to protect them from external forces that are working against them. Success in getting things done has been dependent on the number of families, close social ties between them, and their relationships with neighbours, and with external sources such as political and management institutions.

9.009 In addition to the relationships mentioned above, the place of work, sources of earnings and income of family members also play an important role in the construction of houses, provision of basic service facilities and opportunities for employment and betterment of living and working environments in the low-income settlements. This study has confirmed that the people living in the low-income settlements are trying very hard to improve their environments, either individually or collectively by many different means based upon;

a) social relationships b) compromise with elected leaders, and c) negotiations with officers concerned to offer bribes and gifts.

9.010 The study has shown that there is a multiple relationship between the existing organisations, political

leaders and bureaucrats who are responsible particularly for planning and implementation of programmes and plans for development and improvement of existing katchi abadis in the metropolitan areas. Both organisations:

1) those which consist of 'Dada' having some money, an organised gang of hooligans, who have contracts with officials for acquiring land by illegal means, controlling, managing, and settling the newcomers and,

2) those which are established after settlement to solve the social problems of the community and obtaining services for the residents are always supported by political leaders who do favours only to those who are loyal, and by officials who work in the background to avoid publicity.

9.011 These organisations are run by initiators (chief organisers) or by a selective group of people. This selective group of people call themselves leaders of the community but in fact they run their business and work for elected political members and bureacrats (though a few welfare organisations help local residents to solve social and economic problems to some extent in settlements).

9.012 In most settlements the settlers have their places of origin in different countries, other parts of the country and of the same region. They are of various cultures and have different traditions and customs, they percieve the urban environment from different perspectives. Due to having

little education, being trained in a rural environment, also being newcomers and looking for shelter and a job, knowing little about official procedures, they and the indigenous groups have to follow their friends, relatives, and these initiators and selective leaders of organisations affiliated to the political, ethnic and religious parties in the city.

9.013 These organisations function variously from a sub-community (muhalla) to central organisations in every settlement to solve the social and economic problems in order to improve the environment in their settlements. This is all based however, on a selective approach which benefits a limited number of residents who are members of these organisations. The factors relating to cultural and educational background, custom and traditions, personal attitude towards the urban style of the residents, process of settlement, setting up and functions of different types of organisation, political and bureaucratic systems have resulted in an imbalanced social structure and problems in the katchi abadis in metropolitan areas.

9.014 Being illiterate, unskilled, having large families, limited number of earners, also having personal problems and being discontented, the majority of the poor population in these settlements have to trust and co-operate with the community leaders in the process of development and improvement of their settlements and seek help from them (i.e to obtain admission in hospitals, arrange to transport

remains of some one who has died or obtain some financial help to purchase food or medicines).

9.015 It is likely that people will not enjoy a satisfactory social life if they do not feel themselves to be a part of an established system. Many of the problems are a result of the failure to recognise the existence of close ties in a community. In order to remedy the imbalance in social structures (attitudes, behaviour, traditions and local customs of different communities living in one area), the residential environment of the newly developed settlements and of improved low-income settlements always needs to be given considerable attention..

9.016 The only effective way of planning successfully in order to remove the imbalance of social structures is to discover what the community wants and to try to fulfil these wants as far as is practicable. This means associating with the local residents as closely as possible with the work of planning and implementation. Physical demarcation within the whole residential area and between neighbourhoods helps to make a particular community area recognisable as an entity and fosters and encourages local loyalties. In fact ideally, each neighbourhood would form a local government ward of the town or city boundaries.

9.017 One means of resolving the problem is by creating neighbour-hood-based community action committees and providing more opportunities for the local residents to make

decisions about their own betterment, also to be represented at managerial level and in the process of implementation of the plans. This could be achieved by upgrading the existing patterns and giving full representation to the residents in order to:

a) create a sense of belonging to organisations and activities within their neighbourhood.

b) utilise the capabilities of the residents' based on a self-help approach.

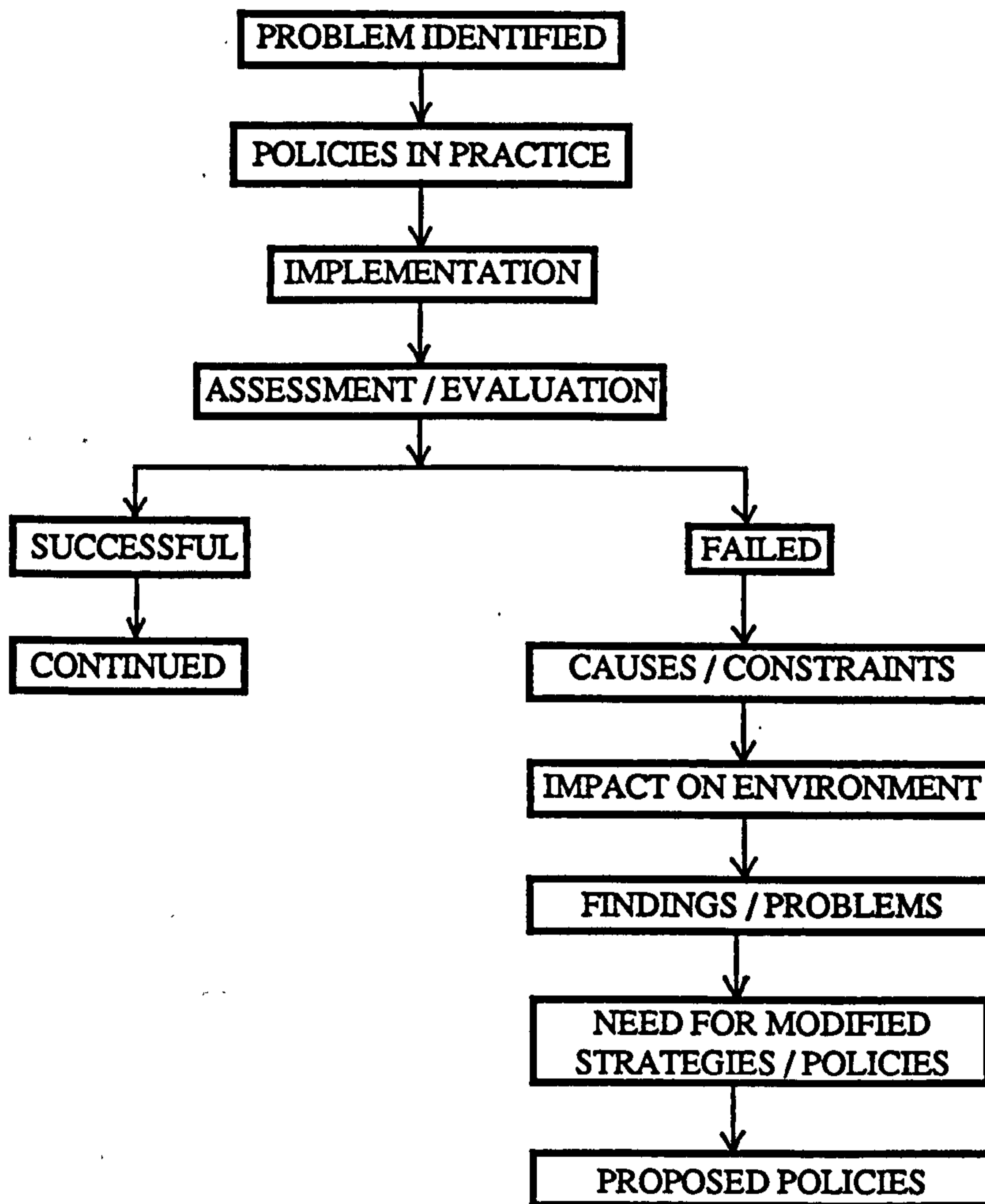
c) elect representatives (say 3-4) on the basis of real democracy and form a neighbourhood committee in each area.

d) elect at least 2 or 3 representatives from all neighbourhood committees and establish a community committee. This committee would be a part of the Area Implementation Committee. The Area Implementation Committee would represent the whole community living in one katchi abadi at the District Coordination Committee. (See Figure 9.3 and para 9.132) Each neighbourhood committee should try to resolve the minor improvement problems relating to repair of services and vandalism in their own area by self-help methods. Representatives from all neighbourhood committees can meet once a month to discuss the problems occurring in each neighbourhood, and find a collective solution to the problems. If they cannot, they should then forward these proposals to the District Coordination Committee with the

help of the Community Committee through Area Implementation Committee. Thereafter the elected political leaders (MPA) would represent the communities living in all katchi abadis that fall in his constituency at metropolitan (divisional) and provincial level. The Chairman of the Governing Body would represent the population living in katchi abadis in each province. There should be a feedback system similar to those for representation (for details see Figure 9.3). The residents should be kept well informed about the decisions made by the federal, provincial and divisional authorities about their needs and demands. (see publicity and participation in the end of this Chapter)

9.018 In order to propose comprehensive strategies and sounder policies, the author explores the fundamental constraints to policies, and the executive agencies which are described in Chapters 3, 4 and 5, and are critically assessed in Chapter 8. The author traces cause and effect to explore the constraints to the execution of these policies and the effects of these constraints on the actual process of the development in Delhi, Cairo and Karachi metropolitan areas, and in the two Study Areas in particular. To achieve these aims, the author propose to analyse and evaluate policies and procedures of implementation in the three metropolitan areas mentioned above, and in the Case Study Areas in particular by the approach indicated (see Figure 9.2).

Figure 9.2 SEQUENCE OF POLICY ANALYSIS



Application of Proposed Approach.

Identified Problems.

9.019 The study of the process of slum formation in the three countries has shown that the urban population is growing at a rapid rate, with a large number of migrants moving from rural areas to the urban centres, particularly to the metropolitan areas. Due to rapid urbanisation and modernisation, the primate cities act as a magnet in attracting many more people from rural areas and small towns. Presently the three primate cities- Delhi, Cairo and Karachi- are facing problems of housing the newcomers to these cities and improving the conditions of those urban poor who are living in low-income settlements. The economically weaker groups of the urban communities living in these settlements had managed to house themselves and provide basic needs such as food, clothing etc for their families through the social relationships between them, and by local monetary sources- low-skilled jobs, borrowings from within extended families and friends, free credits and small loans from credit societies and by running saving clubs and the bisi system. But due to inappropriate planning, inadequate infrastructural facilities and inadequate basic social or community services these low-income settlements have affected the physical, social and economic development in the metropolises.

9.020 Due to deterioration of buildings (only in old slums), overcrowding, inadequate physical planning, poor community and social services in addition to low and irregular income, low purchasing power and imbalance of expenditure, it is very difficult for the residents to pass family life satisfactorily in these low-income settlements. The study of the attempts to solve the problems in order to improve the environments in the metropolitan areas particularly in these low-income settlements (refer to Chapters 3, 4 and 8) has confirmed that the governments of India, Egypt and Pakistan have adopted policies having similar objectives i.e to solve the problems of the target population- 'the urban poor'. But due to many constraints neither the poor nor their governments can finally solve the problems of human settlement. Hence there is a great need to adopt modified strategies which would involve both the governments and the beneficiaries to solve the problems of the urban poor in the metropolitan areas. The various policies and schemes adopted by the governments of India, Egypt and Pakistan and executed by the authorities in the metropolises mentioned above are presented in Table 9.1 and are comparatively assessed as follows.

PERIOD	INDIA	EGYPT	PAKISTAN	DELHI	CAIRO	KARACHI
1947-1950	Accommodating Refugees	Housing workers subsidies	Accommodating Refugees	Accommodation for Refugees	Low-Cost Houses, subsidies to Organisations	Accommodation for Refugees
1950-1955	Organisations, Housing Refugees	Societies/ Comp Low cost houses	Organisations Housing Refugees	DIT - Houses and Flats in Refugee Colonies	Development Company Blocks of Flats, Popular Houses for Workers	KIT - Houses, Flats and utilities KIT + M/S - GKP
1955-1960	Upgrading Organisations - Powers Slum Clearance, Relocating Slum Dwellers in Low Cost Houses	Field Drainage, Registration Housing Middle Class People by National Comp. and Co-op Societies	Upgrading Organisations powers Military Coup, Slum Clearance and Relocation, New Capital Agro-Ind.	DIT - DDPA - DDA Relocation of Slum Dwellers in Janta Flats and Juggi	5 Storey Walk-up Flats for Industrial and Public Workers	KIT - KDA - GKR Plan Relocation of Slum Dwellers in Industrial
1960-1965	Master Plans-Large Cities, Land Use; Land Bank. Disposal of Developed Plots to EWS	Houses -Low and Middle income Groups.Cities for Industrial workers,Public Servants	Plans- Islamabad and Large Cities Houses for Govmt. Servants, Relocation in Satellite Towns	Delhi Master Plan-Plots and Houses, Public Houses for EWS Co-operatives J.J. Tenements	Heavy Industry "Worker's City" Helwan 5-Storey Flats for Clerks and Industrial Workers	Industry Complex Korangi, Baldia and New Karachi Development of Plots and Houses for Employees
1965-1970	War- Pakistan Aquisition, Development and disposal -Plots	War- Israel Redevelopment Prefabrication Industries	War- India Elections, JRP- Slum Improvement in Provincial Capitals	Landbank-usebyAquisition Development and Disposal Sites and Ring Towns	Completion of " Workers City" Settlement of Workers in City	Elections, JRP Survey in slums. Plots in three Townships-Baldia Qasba and Orangi
1970-1978	War -Pakistan Houses and Jobs for EWS on site Slum Improvement	War Israel, Prefabricated Housing, Plans-Desert Areas	War with India-Bangladesh Adhoc Plans-Plots and Core Housing	Improvement of Slums, Houses and opportunity for Low Skilled Job	Prefabricated Industries and Panel-Housing, Plans for New Desert Cities	KDA+UNDP- Master Plan Metroville, Upgrading Lyari Slums, Refugees from Bangladesh
1978-1983	Environmental Improvement in Urban Slums, Site and Services	Master Plans-Desert Areas: Infrastructure Jobs for Poor	Military Coup, Regularisation of Katchi Abadis Accomodating Afghan Refugees	Development and disposal Plots on lease, Houses -Rent / Purchase	New Cities-15th May,El-Obour and 6th October	Elections, Army MLO-Sindh Katchi Abadi Authority Slum Improvement
1983-1993	Housing for Low Income EWS and State Employees Improvement of Environments in Existing Slums Sites and Services and Upgrading Slum Areas EIUS and Slum Improvement	New Towns and Communities, Resettlement of Environments in Existing Slums Sites and Services and Upgrading Slum Areas Master Plans-Upgrading Slums	Quasi Political Gov. Legality of Katchi Abadis Regularisation and Slum Improvement	EIUS, Sites and Services New Communities and Towns e.g. Noida	New Cities, New Community near Workers City, Improvement of Waste Water	Regularisation-Slums post 1978, Surveys in Slums pre 1985, Review of Regional Plan KDA-Plots and Houses for Labour

Comparative Analysis of Policies and Their Implementation in India, Egypt and Pakistan, Particularly In Delhi, Cairo and Karachi Metropoles, and Study Areas.

9.021 The study of past and present policies and of their implementation in the three metropoles (Table 9.1) reveals that the governments of India and Pakistan allowed the refugees to occupy vacant land and buildings in the metropolitan areas. During that period the government of Egypt constructed low-cost houses for the poor people. After a few years, India and Pakistan implemented a policy for rehabilitation of refugees by Delhi Improvement Trust and Karachi Improvement Trust. These two improvement trusts developed colonies for refugees, built houses and flats for low-income people, and provided utilities in these developed settlements. Meanwhile, in Egypt the construction companies built 5-storey blocks of flats and popular houses for industrial workers. These trusts and construction companies, due to their limited powers and resources, were unable to provide the required number of houses, basic amenities and other required service facilities in the metropolitan areas.

9.022 Recognising the above facts, the governments of India and Pakistan upgraded the trusts to Development Authorities and enlarged their powers (1957). During that same period, Egypt registered Housing Co-operative Societies to build houses for middle-income people. The Delhi Development

Authority executed the policy measures for slum clearance. Under this policy the slum dwellers were evacuated from inner parts of the city, and relocated in Janta flats, Jhuggi Resettlement Colonies and J.J tenements, built by the DDA. The Karachi Development Authority prepared the Greater Karachi Resettlement Plan, and also executed a similar policy to that of Delhi Development Authority. The inner city slum dwellers were settled in two industrial townships—Korangi and New Karachi. The Co-operative Societies instead of solving the problems of lower-income group, built flats for army and police officers, and houses for middle-income people. The Construction Company initiated development of the Worker's City near Helwan industrial complex.

9.023 The analysis of these policies and of the implementation process confirms that the above schemes (in three metropolises) failed, due mainly to high charges for developed plots and instalments to the cost of built houses which the poor people could not afford; too little space within built dwellings; and a shortfall in the number of plots developed, and of houses and flats erected, as compared to the targets proposed in the plans. The Korangi new town project failed due to the following additional constraints; lack of jobs, particularly for those who were evacuated from the inner city slums and relocated in this area; absence of infrastructural facilities; lack of transport services from and to developed township; and

non-repayment of charges by residents. Finally the project was abandoned due to lack of funds on the part of the government.

9.024 In their further attempts, the DDA in collaboration with the Ford Foundation (USA) prepared the Master Plan including a land-use plan for planned growth in order to solve social, economic and managerial problems. Under the policy for a land-bank the DDA acquired waste land, developed and disposed of these plots to high-income, middle-income, low-income and eligible allottees. In order to implement the programme for environmental improvement in slums, the DDA developed site-and-services and satellite towns outside the metropolitan area (refer to NOIDA). During that period, the Cairo metropolitan authorities developed the Worker's City, and introduced prefabrication industries. Meanwhile, Karachi Development Authority has developed plots in three other townships excluding Korangi.

9.025 After winning the elections, the late Prime Minister Z A Bhutto, the political leader took a keen interest in the problems of the poor in the country. The government of Pakistan initiated JRP in the capitals of all the Provinces. The Planning and Development Department of Sindh Government implemented a slum improvement programme in Lyari. The KDA with the collaboration of UNDP prepared the Master Plan for Karachi. The Master Plan proposed the development of the

Metrovilles in the metropolitan area. The objectives of the project were to solve the problems of low-income people in order to ensure better standards of environment in the city. For implementation of this project, the KDA was responsible for development of plots; whereas provision of utilities and transport was within the authorities of KWSB, KESC, KGC and SRTC. (For details refer to Chapter 4 and 5.) The above information shows that the DDA and KDA have executed very similar programmes; while Cairo metropolitan authorities have established prefabrication industries- a different approach from the authorities in Delhi and Karachi.

9.026 The evaluation of above policies and the procedures of implementation have confirmed that these have failed due to various constraints in the context of each of these three countries. The policy for acquisition, development and disposal of plots- a major component of the 'Delhi Model' including development of site-and-services and towns has failed because of slow process in the execution of the project, shortfall and maldistribution of developed plots against the goals set out for the land-bank policy in the Delhi Master Plan. The other constraints to success of the site-and-services and towns were high land values, long schedules for registration and allocation of plots, eviction of the non-eligible without an alternative, lack of resources for repayment of development charges and appropriation by higher-income groups.

9.027 The evaluation of the programmes for development and of the implementation process in or around the Cairo metropolitan area confirms the failure of both the policies and their execution. The Worker's City that was completed in 1964 (Korangi project was abandoned) has been changed by the residents (mostly those in two bedroomed flats) according to their needs and abilities during the last 25 years. This has happened because of small-sized flats, shortage of housing in the city and reluctance to accommodate occupants by the authorities concerned. In fact informal payments for tenancies in the private housing are an additional element with reference to extensions to the houses in the Worker's City. The failure of the prefabricated housing project can be simply explained in a few words- these were not affordable by the poor. (Other reasons for failure are described in Chapters 3 and 8.)

9.028 Analysis of the JRP- slum improvement project confirms a substantial success in terms of its implementation in Lyari. The results of the author's survey (1988) show that 80% of the sample households have obtained connections for electricity in their homes. some 88.7% used piped drainage system for sewage disposal and some 88% of the households use improved methods of refuse disposal. On the other hand, under 30% of sample households are enjoying water supply and gas amenities in their homes. The Bhutto government also built Lyari General Hospital. The development of the area

was mainly due to political support from and to the residents (refer to Chapters 6 and 7). Later, due to reluctance from the Mayor of the metropolis, the residents did not pay charges for lease of the plots nor for the costs of services provided in the area. At the time of author's survey some 35% households owned their houses, 20% have obtained a lease for occupied plots, some 30% were tenants and only 8% of sample households were squatters. The other reasons for the withdrawal of Lyari project were political changes in the country (Martial Law goverment) and in the metropolitan area (Mayor) in particular. Because of the Martial Law, all the planning and development activities were suspended in the city. Afterwards no improvement or development programmes has been implemented in this Study Area (refer to impact of existing policies and procedures on development in Study Areas in Chapter 8).

9.029 The evaluation of the Metroville project confirms that instead of developing four metrovilles per year as proposed in the Master Plan, the authorities could develop only four metrovilles in a period of 6 years (refer to Table 4.6). The people who were shifted from the inner city slums and relocated in the Metroville 1 did not occupy the plots and build their houses there. The reasons for non-occupancy were lack of basic services, and of infrastructure, transport and job opportunities on sites. The occupants had to travel by private transport from and to their old workplaces, which

they could not afford at that time. The project could not achieve its objectives due mainly to non-coordination between KDA and Utility agencies, lack of trained and qualified staff to provide training to local people and utilise their resources in the process of implementation. The author considers that the objectives of the metroville and development schemes proposed in Karachi Master Plan are valuable; they could be modified and applied to solve the problems of slums in metropolitan areas.

9.030 The government of India, particularly authorities in Delhi metropolitan area, continued implementation of policies for Environmental Improvement in Urban Slums (EIUS) and site-and-services projects up to the early 1980s. In the late 1970s, due to the failure of the prefabricated housing programme and in accordance with the desire of the President Anwar AL Sadat, the government of Egypt adopted a spatial planning and development policy based on the development of new towns and new communities away from congested cities. In early 1982, the government of Egypt prepared Master Plans for Alexandria, Cairo, Ismailia, Port-Said and Suez Canal. The Master Plans suggest development of new towns, site-and-services and upgrading programmes. The government, with assistance from UNDP and UKODA, prepared the Master Plan for Ismailia. Under the Technical Assistance Programme funded by ODA, the Port-Said authorities decided to implement site-and-services and upgrading programme in Kabbutti village.

9.031 In the late 1970s, the Government of Pakistan prepared its Fifth National Plan (1978-1983). The plan emphasised the regularisation and upgrading of existing katchi abadis, and provision of services such as water supply, sewerage and sanitation (already in operation since early 1970s). The plan also envisaged provision of basic services for 1.33 M people in slum areas. After the fall of the Bhutto regime (July 1977) General Zia ul Haq, the president of Pakistan announced regularisation of all katchi abadis in the country that were developed before 1 January 1978. In order to implement the policy mentioned in the Fifth National Plan and the statement of the President, the Sindh Katchi Abadis Authority with its Head office in Karachi was established for Sindh Province and the Directorate of Katchi Abadis for Karachi Division was developed in the KMC building. The KMC and Directorate of Katchi Abadis conducted surveys in katchi abadis in the metropolitan area. The authorities chose Baldia an Open Plot Development project (a housing scheme proposed in Metroville) for implementation of policy for improvement and regularisation of katchi abadis.

9.032 The author assumes that one of the reasons for choosing Baldia was that the KMC has been carrying out improvement works there since 1977. The Directorate assumed that the implementation would be easier in this area than somewhere else in the city. For easier and speedy implementation of the programme, the Directorate adopted the

planning and implementation process (refer to Table 4.7) and land use, plot size and lease rates (refer to Table 4.8) proposed by the Dutch Advisory Mission in 1979.

9.033 The evaluation of policies has shown that with regard to the implementation of the policy for development of satellite towns the Delhi metropolitan authority has established a single authority that is responsible for development of the New Okhla Industrial Development Area (NOIDA). Considering the success of Phase 1, the author's assumptions and the comment of Sinah, 1990 (refer to evaluation in Chapter 8), the author, considers this project to be a step towards solving the problems with which the Delhi metropolitan area is faced with.

9.034 The evaluation of Kabbutti upgrading projects confirms that this project has objectives almost identical to those of the Metroville implemented in Karachi in the early 1970s. This Kabbutti project has been partially successful because a) it is 'home-grown', b) at the initial stage it has the support of local institutions, village council to district council and from department of housing to the Governor himself. Later due to new planning regulations imposed by central government, disagreement between central government, State Governorate and utility agencies, lack of power with local executive staff and slow implementation have all affected the progress of the project. Nevertheless

understanding of the importance of the project by the residents and their participation have resulted in self-development in the area.

9.035 With regard to the evaluation of the policy for regularisation and upgrading of katchi abadis and its implementation, the results of surveys conducted by the KMC and Directorate confirm that of the total surveyed katchi abadis, some 43% katchi abadis were developed between 1947 and 1954 and the remaining 57% katchi abadis were developed by 1978. Both authorities have started lease operation on various katchi abadis in Karachi. The residents are required to pay at least partly, for the rights of ownership and charges for development. The analysis of the Baldia improvement project confirms that this project has not been fully successful. The slow commencement of an improvement programme i.e lack of piped water supply, sewerage, electricity and roads (refer to Table 4.9), absence of the officials in their offices, lack of information about lease rates to the residents and non-repayments of charges for lease of the plots and development by the occupants made the project difficult to continue. Hence finally, due to the lack of funds on the part of the authorities concerned the project failed. At the end of the five-year period of the national plan (1978-83) there was a shortfall of 140 K developed plots against the target fixed at 425 K plots, and

population covered under upgrading katchi abadis was 0.5 M against a target of 1.33 M.

9.036 Since the early 1980s, the three governments have adopted and implemented policies for 'Improvement of Environments in Existing Slums', 'Site-and-Services' and 'Upgrading' along with local schemes within the context and resources of their own countries and in metropolitan areas in particular. Since 1982, the government of India has approached the problems of the urban poor through six new schemes based on the criterion of income range of the beneficiaries. Of these the two notably EIUS and Site-and-Services are applied in Hyderabad, Delhi and the other large cities in the country (refer to 3.013 - 3.016 and 3.046 - 3.048). The Delhi metropolitan authorities have applied the policy for development of satellite towns i.e site-and-services since 1976. In 1983, in view of the policies revised by the central government, and considering the success in the initial phase of the development of township, the NOIDA authorities have prepared a Master Plan for implementation of Phase 2 in the years 1983- 2000.

9.037 During the last decade, the government of Egypt has invited foreign consultants, and has received monetary aid and technical assistance from international agencies. In view of the foreign experts' suggestions, with financial help from international agencies, the goverment has prepared

Master Plans for the large cities. The Master Plans have suggested development of New Cities, Site-and-Services and Upgrading projects. The government of Egypt has made no change in the policies and programmes for the development in the country since the early 1980s. In order to decentralise population and services from large cities, particularly Cairo, the government of Egypt has initiated a programme to utilise the desert edge of the Delta that is termed the Capital Crescent Region (CCR), extending from Alexandria to Suez Canal zone with Cairo as its functional centre. The Cairo metropolitan authorities have developed new towns. Some of them such as El Obour, Fifteenth of May, Sixth of October and New Community Project near the Worker's City, Helwan are developed specially to provide integrated urban centres and thus to reduce pressures on the city of Cairo.

9.038 Like India and Egypt, the Government of Pakistan has adopted policies for improvement of environments in existing slums by upgrading slum areas in the country. The national strategy for upgrading katchi abadis proposed in the Sixth Plan is based upon a two-pronged approach:

- 1) security of tenure is to be provided to the residents through regularisation of katchi abadis and legalisation of their occupancy

2) overall conditions in the settlement are to be improved by providing a basic urban infrastructure.

The Sixth National Plan (1983- 88) also suggested that the government would provide 550 K plots, and the private sector would develop 120 K small-sized plots for low-income families. In addition the government would construct 670 K housing units for all income groups in urban areas. The government would provide construction materials at low cost; whereas the poor would construct houses themselves according to their own design. In 1986, Muhammad Khan Junejo, the Prime Minister announced that all the katchi abadis that exist on or before 23 March 1985 shall be regularised (refer to Chapters 3 and 4). This was an extension of the National Strategy (Sixth Plan) and of the General Zia's statement as well as in contrast to MLO 130 (Removal of katchi abadis developed after 1 January 1978) promulgated by the Governor of Sindh.

9.039 With regard to the analysis of the slum improvement project funded by UKODA, implemented in Hyderabad, it is difficult to judge its success or failure because this project is not completed and the results have not yet been announced. From the statements of Lynda Chalker, the Minister for UKODA and Michael Parkes, the Senior Planning and Architectural Adviser ODA (refer to Chapters 3 and 8) it seems that the project is progressing. Related decisions such as the extension of the project into its second phase,

funding of similar schemes in Visagapatnam and Indore, and consideration of two more projects to be executed in Vijayawada and Calcutta confirm the success of the project so far as implemented in Hyderabad. Like the slum improvement project in Hyderabad, the success of NOIDA also is difficult to judge, since this project is also still under construction. Considering the evaluation of this project and of the slum improvement project in Hyderabad, the author, however appreciates the objectives, components and implementation procedure of both projects.

9.040 The evaluation of the policies implemented in Karachi metropolitan area confirms that the Directorate of Katchi Abadis and KMC conducted surveys in the city to identify all those katchi abadis that were developed before 23 March 1985. Presently, of 432 surveyed katchi abadis, some 288 have been declared regularisable and the remaining 144 katchi abadis are still under the process of evaluation. The statistics show that a total of 430 K plots and 400 K housing units were developed and constructed by both public and private sectors with a backlog of 240 K and 270 K in these sectors respectively. The evaluation of the policy statement stated by the Prime Minister (1986) shows that the urban poor living in katchi abadis, especially speculators, considered themselves as having political support from the government. Subsequently they have developed more illegal settlements in the city.

9.041 The above assessment of policies and procedures of execution in Pakistan confirms that during the last 43 years of independence all the governments of Pakistan have applied various policies and programmes for solving the problems of katchi abadis in order to improve the living environment throughout the country and in the Karachi Metropolitan area in particular. In their attempts Lyari has been considered only once on political grounds (1970); whereas Korangi was to be developed as an independent town to accommodate and provide jobs to the inner city slum dwellers in response to the agro-industrial policy in 1960. Thereafter, both areas have been surveyed by the Directorate of Katchi Abadis, but since then no authority has reconsidered them for improvement or development of any kind.

Constraints and Their Impact on Development.

9.042 The following constraints are identified in the execution of past and current policies to solve the problems of slums and improvement of degraded environments adopted by various Governments in India, Egypt and Pakistan.

1. Panic Response. In the beginning the Governments made decisions on an emergency basis without considering the actual demand for housing units, size of houses and the supply of services available in the large cities, to poor settlements in particular. The governments also established

organisations to tackle the problems of refugees in addition to the planned growth of the cities. The DIT, Construction Companies and KIT provided accommodation and services by building one and two-roomed dwellings in Refugee Colonies, Janta Flats in India, Self-financed housing in Egypt, and Refugee Colonies (Korangi) and Multi-storey Flats (south of Lyari) in Karachi Pakistan. These attempts were made, however, on a trial basis; and they did not solve the problems of the urban poor.

(2) Houses and Flats. The construction of houses (for state employees) and flats (for the poor) was a failure -the high cost of built houses and flats, absence of services (water supply, drainage system), lack of suitable jobs for low skilled people and slow pace of construction (housing backlog) in housing schemes mentioned above could not meet the demand for basic shelter and need for services. The housing schemes introduced by the Government and executed by the local authorities were extraordinarily expensive when compared with what the poor could afford and with the cost of self-built houses.

(3) Occupancy rate. The actual acquisition and development of plots, construction of dwellings, occupancy rates of these plots and dwellings, and the provision of services falls short of the targets fixed in the plans and policies. The policies and programmes chosen for implementation do not

appear as well-balanced and carefully planned strategies to meet freely the demand for housing at National and Local levels. The Nation has been impressed by the magnitude of the number of plots, houses and services recommended in the development programmes, particularly by the large amounts budgeted. The actual achievement however, in terms of the number of plots developed, disposed of, dwellings erected and services provided fall far short of what has been officially proposed and approved. (Refer to Tables 3.10, 3.11, 3.12, 3.18, 4.6, 4.9, 8.1 and 8.2)

4. Cost of Materials and Price of Land. The study of the Delhi Model of Urbanisation, Prefabricated Houses in Egypt and Korangi Township confirm that the high cost of materials (cement, timber and brick) and rising prices of developed land are continuously depriving a major proportion of the poor of this basic need, because it has gone beyond their reach.

5. Recovery or Repayment of Charges. The study of slum clearance and relocation of slum dwellers in Korangi and houses built by DDA confirm that the poor could not afford to repay the high values of land and heavy instalments towards the cost of houses. The majority did not occupy the plots and houses, and those who initially occupied sold their plots and houses to speculators, and they themselves squatted elsewhere in the cities. The analysis of JRP- slum improvement programme in Lyari confirms that the project was

abandoned in the last stage due to non-recovery of charges and political changes in the country. The improvement project has achieved a substantial success in terms of infrastructure development (refer to results of survey in Chapters 6 and 7 of this study).

6. Speculation. Land speculation is also an obstacle to the speedy development process- construction and provision of housing and other services for the urban poor. The analysis of developed plots disposed of by the DDA shows that a low proportion of developed plots have been allocated to low-income households. A majority of poor people could not afford to pay charges for development or to build houses on these plots; and sold to middle-income households who were satisfied with the size and price of plots. The analysis of Metroville project shows that all the present households in Metroville are second owners. Those households to whom plots were allocated sold their plots to speculators or middle-income people in the city.

(7) Security of Title. The current process of administering lease documents or security-of-title for occupation of land in the metropolitan areas leads to time-consuming bureaucracy and undue expense for poor applicants who must follow up every stage of the process in person and often have to offer gifts or pay bribes to the official concerned.

(8) Loan Schemes. There is no organised system for housing

finance open to those members of the community who most need financial help. The loan schemes introduced for the construction of new houses and improvement of housing stock in existing slums are inadequate. The existing practice and system of granting loans to improve living standards make it very difficult for applicants to benefit, especially lower-income earners. In spite of the declared policies of the Governments, loans granted to individuals by the House Building Finance Corporation (HBFC), Life Insurance Company, Bank of Housing and Construction, commercial banks and other financial institutions are minimal. Banks are unwilling to lend where there is inadequate security or where the borrowers do not have a reasonably well assured source of income. It is understood that a lending authority asks the borrower to produce documents of secured property against credit. The people who do not have a well assured source of income and a secured occupancy status cannot avail themselves of credit opportunities.

9. Training and Technical Assistance. Inadequate numbers of trained and qualified staff for implementation of policies and development programmes is one of the major constraints. The analysis of prefabricated housing and Ismailia projects have shown that both projects were lacking skilled, trained staff and technical assistance in the process of execution.

The execution of the Metroville project in Karachi also was a failure because there was a lack of trained staff to implement the project.

(10) Political Indifferences. The study has confirmed that policies announced by the Presidents and the Prime Minister of Pakistan other than those proposed in National Plans (refer to Policy statements reported in Chapters 3 and 4) and planning regulations imposed by the Central Government (refer to Ismailia Project, Egypt) had badly affected the planning and development process in both countries. Though Kabbutti site-and-services and upgrading project has partial success, this project also had some political impact during the execution process.

(11) Poor Management. The author has also identified some institutional constraints to the process of development and improvement in India, Egypt and Pakistan, certainly in Karachi metropolis (refer to slum improvement in Baldia and Lyari, Metroville, Worker's City, Al Tebeen, Ismailia, Kabbutti, implementation of Delhi Model and Existing Management System in Karachi in particular). These are,

(i) the inadequate planning process e.g lack of proper organisational, departmental and institutional arrangements at both National and Local levels.

(ii) limited powers lying with the State government, local development authorities and implementing agencies.

(iii) involvement of many agencies to tackle the problems,

(iv) lack of intra-departmental co-operation, and inter-agency coordination,

(v) reluctance by the departments concerned to allow the poorest residents to occupy the vacant land and gain illicit access to services in the city.

(vi) absence of a formal relationship between the authority responsible for improving slums and national government.

Consequently, the poorly structured management system has acted to encourage the urban poor to build their own houses and to ensure easier access to services. In reality, however, these officers have become additional institutional obstacles to the progress of development throughout each country.

(12) Public Participation. There is a lack of public participation in the process of planning and implementation in the developing countries particularly in Pakistan. The available information and knowledge acquired from the study of comparative metropolitan areas and the respondents in the Karachi Study Areas reveal that the process of planning and implementation involves planners, bureaucrats, politicians (i.e. elected members) and enforcement agencies; while the views of those affected, for whom the policies are proposed, have always been ignored. The study further confirms that

Table 9.3 FUNDAMENTAL WEAKNESSES OF POLICIES AND OF EXECUTIVE AGENCIES IN PAKISTAN

CONSTRAINTS OR CAUSES FOR FAILURE OF POLICIES	
POLICIES / PROGRAMMES	IMPLEMENTATION
Emergency response ignoring actual demand for housing and infrastructural services	Lack of organisational arrangements at National and Local level
Plots and dwellings given to middle income households	Lack of co-ordination intra-Agencies and intra-Departments
Shortage of materials, high price of land and construction costs	Lack of trained and experienced staff to implement plans
Land speculation and squatting elsewhere in the Cities	Military Coup, State of Emergency, war, ethnic crisis, curfew and elections upset progress in country
Inadequate infrastructure - water supply, sewerage and refuse disposal services	Lack of funds and maldistribution of available funds for new settlements and improvement in slums
Lack of jobs for skilled and unskilled: unemployment.	Poor management and corruption favour rich people

the slum improvement projects funded by ODA have been partially successful or are in progress. In the author's view one of the reasons for their positive impact is the involvement of the local community in the whole process of planning and execution of the projects (refer to Slum Improvement Project in Hyderabad India and Kabbutti Site-and-services and Upgrading project in Egypt).

13. The Wars. The wars between two neighbouring countries (Pakistan and India, and between Egypt and Israel) are also one of the major reasons for the destruction and hindrance to the planning and development process in the country. (Refer to Evaluation of Policies in Chapter 8 and Table 9.1)

Findings of the Study.

9.043 The study has confirmed that:

* The urban population is increasing faster due to natural growth and migration from rural and other small urban areas towards the metropolitan areas in developing countries (refer to Tables 1.2, 3.1, 3.4, 3.13, 3.15 and 4.1)

* The increase in urban population in India and Pakistan, particularly in Delhi and Karachi metropolitan areas, is due to partitioning of colonial India into two independent nations. More specifically the increase in Karachi's population is due to the wars (1965 and 1971) between two neighbouring countries (India and Pakistan) and the creation of Bangladesh (1971). (refer to Ch.4)

* Due to shortage of housing, high prices of land, costs of materials, shortfall in the number of plots developed and in the number of houses erected by the public authorities, and because of demand for high rents and key money for tenancies from the private developers the urban poor can neither purchase the plots and houses nor rent houses in developed parts of the metropolitan areas. (refer to Tables 3.2, 3.7 and 4.2)

* The poor have squatted on vacant pieces of land within the city or on its periphery, between public housing, in cemeteries, tombs (holy shrines) or old mosques, whichever suits their needs and resources. They themselves have built houses and developed settlements according to their own plans and with limited resources. (refer to Chapters 3, 4, 6 and 7)

* The poor living in these self-developed settlements and those living with their relatives, friends and co-villagers have consumed the basic services, infrastructural facilities and transport available in the metropolitan areas. They have put high pressures on the limited capacity of existing facilities which are thus overstretched, resulting in an inadequate infrastructure in the metropolitan areas. (refer to Chapters 3, 4, 6 and 7)

* These self-developed low-income settlements in the initial stage, due to improper planning, inappropriate technology and training, poor community and social services and inadequate response from the authorities actively affect the

development and degrade environments in the metropolitan areas of developing countries. With the passage of time under different governments these settlements have been transformed into slums and other new low-income settlements are being developed in the urban areas particularly in the metropolitan areas. (refer to Tables 1.3, 3.1, 3.5, 3.8, 3.19 and 4.5)

* These slums exhibiting poor housing, high density or overcrowding, inadequate basic infrastructure, lack of social services, and poverty pose a serious threat to the prospects for both immediate and longer-term improvement and development of the large cities in developing countries. Due to the existence of the slums and the growth of further squatter settlements, developing nations like India, Egypt and Pakistan in particular are facing various problems in the process of physical, social and economic development in metropolitan areas. (refer to Chapters 3, 4, 7, 8 and 9.010)

* The movement of people from India and Bangladesh, wars between Pakistan and India, the secession of Bangladesh and the political conflict between the USSR and Pakistan due to the former's invasion of Afghanistan are the reasons for the inflation of Pakistan's population. Due to the above, there are ethnic crisis, destruction, squatting and development of katchi abadis, and the situation in the metropolitan areas of Pakistan has worsened, particularly in Karachi.

* Panic responses involving the miscalculation of demand for housing and of the economic conditions of the population

have created a wide gap between the demand for and supply of housing in the country. Policies and concepts of service needs cannot achieve those aims which were proposed in order to serve the poor community, since they are corporate and have paid inadequate attention to socio-economic and other aspects of the poor inhabitants. They have ignored both the actual causes of slum formation and the constraints to the effective implementation of remedial programmes.

* Policies and various schemes for housing are unbalanced and extraordinarily expensive. On the other hand the slow pace of development of plots, construction of dwellings and flats and provision of service facilities by the government have resulted in a worsening of the environment in the metropolitan areas.

* Policies and programmes involve a lengthy process of planning and development, with a plethora of bureaucrats. Poor management (execution) has encouraged the process of squatting, self-construction and of easier access to illegal services, and force the poor to pay bribes or to offer gifts to officials concerned with a) the establishment of illegal settlements b) legalisation of these and c) the obtaining of security of title within settlements. This has provoked an increase in the number of slum dwellers rather than overcoming the slum problem in the metropolitan areas.

* Policies and programmes have provided an inadequate system of finance, which discourages the poor people from availing themselves of these loan facilities for either construction

of new dwellings or extensions to existing dwellings and for the improvement of working conditions in the metropolitan areas. There is a lack of funds for the improvement of degraded environments and to continue the development of new settlements in the metropolitan areas, the available funds are either not properly utilized or misused by officials.

* The comparison of the author's results for the two visited katchi abadis with those of AERC's results for other katchi abadis of Karachi confirm that inadequate housing, high density and overcrowding, lack of basic amenities in the houses, insecurity of tenure, inadequate infrastructural services, illiteracy, lack of sanitation and imbalance of economic status are some features common to the katchi abadis developed by the urban poor in Karachi metropolitan area. The results of both the author and AERC are similar in many respects (refer to Chapter 7). Hence the author intends to mention only the findings of the two case study areas.

9.044 The findings of the case study areas have confirmed that:

* The existence of katchi abadis of two kinds viz. old (e.g Lyari) and new or younger (e.g Korangi). In Lyari more than 50% of its total population was living there before 1955. Hence most of the houses in Lyari are very old; whereas in Korangi, the settlement developed in the recent past, the houses are newly built.

* With regard to the problem of migration, Korangi received immigrants from India (1947), Bangladesh (1971) and is still receiving immigrants from other parts of the city, from within Sindh and from other Provinces of Pakistan.

* A problem exists concerning the smallness of dwellings in katchi abadis of both kinds, particularly in the oldest ones. In Lyari some 71% of sample households are one-bedroomed; whereas in Korangi 46% of total sample households have one-bedroom dwellings. In Lyari some 19% have two-bedroomed dwellings; whereas in newly developed settlements in Korangi, 38% of total sample households have two-bedroom dwellings.

* Problems exist of high density and overcrowding in slums of both kinds. Overall 84% of the total sample population live in one-and two-bedroom dwellings in Lyari in contrast to 73% of total sample population living in one-and two-bedroom dwellings in Korangi. The average family size in Lyari is 9 persons per household as compared to 7.6 persons per household in Korangi. The average number of persons per bedroom for one-bedroomed dwellings in Lyari and Korangi slums are 8.0 and 5.9 respectively.

* Despite the government's policy for regularisation (legalisation of occupied land), in both the old and new slum areas this has not yet been fully implemented. In Lyari some 43% of the sample heads still have to obtain secured tenure; whereas in Korangi the proportion of heads which are seeking to secure tenure is 69%.

* In Lyari only 20% of the sample households are without an electricity connection to their houses; whereas in Korangi, 45% of the sample households have no access to this facility. The comparative study of AERC confirms that in both case study areas a high proportion of households have connections for electricity in their houses as compared to other katchi abadis of Karachi where the proportion of households that have access to electricity is in the range of 70% to 90% in old katchi abadis and 20% to 40% in new katchi abadis.

* Gas connections are available to less than one third of the total households in all katchi abadis in Karachi. In Lyari only 24% of the sample households have been supplied with gas; whereas in Korangi less than 7% of households have connections for gas in their houses. This confirms the severity of the problem in all katchi abadis, particularly in the case study areas.

* In Lyari some 71% of households do not have mains connection for water supply in their houses. Of those 29% who have connections in their houses 20% do not collect drinking water from the mains. A high proportion (56%) collect drinking water from a hand pump and some 24% have none of the sources of water mentioned in Table 6.5. Similarly in Korangi of those 56% who have a mains connection in their houses, some 6% do not collect water from this source. In this area households collect water from a hand pump (10%), from a stand pipe (7.5%) and from other sources (purchase) (24%).

* At present in Lyari only 11% of households are not using piped drainage for sewage disposal. They use ground, pit latrine and other sources for disposal of sewage in their houses. By contrast 61% of the households in Korangi have no access to a piped drainage facility. A very high proportion (49%) of the households use ground, 10% use pit latrine and only 2% households have dug an open hole in their houses for sewage disposal. (Refer to Tables 6.6, 6.29 and 7.6 b)

* In Lyari about 12% of households throw collected refuse in the streets and the remaining 88% use either containers (47%) provided by the KMC or other improved methods (41%) of refuse disposal. In Korangi some 34% throw collected refuse in streets, 4% burn it and the remaining 62% of households use open plots as a source of refuse disposal. The unhygienic methods of refuse disposal used by a very high proportion (94%) of households confirm the need for an improvement of the existing system in Korangi.

* Significant unemployment and poverty exist in both case study areas. Some 24% and 13% of heads of the sample households are recorded unemployed in Lyari and Korangi respectively. In both areas about 50% heads of the households are engaged in unclassified or low-skilled category of occupation. Very low proportions (11% to 16%) of the heads of households in both areas are employed in government jobs.

* In Lyari 22.5% of those heads who are engaged in unclassified occupation, 7.5% of those who are employed in

government offices and 1% of those who own a business have to travel to the city centre or other parts of the city. Similarly in Korangi some 12.5% of government employees, 15% of unclassified workers and 1.5% of craftsmen have to travel far from their homes, which in economic terms is significant. A good amount (10%) of their income and time (1 to 2 hours) may be spent on transportation.

* The 31% who travel far from their place of residence are divided into 16% who use private buses, 8% an auto rickshaw, car or a taxi, 3% company bus or bicycle and 4% foot as modes of travel to work in Lyari. The corresponding statistics for Korangi are 19%, 5% and 5% and 0%.

* There is an income disparity and imbalance of expenditure of the family members living in sample houses in both Lyari and Korangi (refer to Tables 6.23, 6.46 and 7.6 c). There is a lack of jobs for both skilled and unskilled people in the metropolitan area, and particularly in the study areas.

* Those households who have nil income or whose expenditure exceeds their household income often compensate for their financial deficiencies through sources of extra earnings-home activities, business and the earnings of other members (refer to Tables 6.22 and 6.45).

* Public participation has been ignored in the process of implementation of policies for planning and development in the metropolitan areas, particularly in the Study Areas.

* The residents of fourteen out of twenty zones in the metropolitan area, and case study areas prefer improvement of infrastructural facilities in their settlements. Within two case study areas, except for provision of jobs as a first priority of the residents of Lyari and fourth of the residents of Korangi the other priorities of both areas are in common to those of the other katchi abadis of Karachi Metropolitan Area. (Refer to Table 7.5 and para 7.070)

R

Review of Strategies And Policies: Lessons Learned From Past Experience.

9.045 The experience has shown that different policies have been adopted from the environmental experience of the low-income settlements e.g. site-and-services, new communities, new towns, metrovilles, and upgrading slums in metropolitan areas of many developing countries. As a formal government programme supported by international agencies especially by the World Bank, site and services have been successfully tested in Philippines, Botswana, Kenya, Ivory Coast, Upper Volta, Zambia (Abuja Master Plan).

9.046 The particular mix of subdivision of land, types, size and disposal of developed plots, level of services provided, and the administrative and financial provisions have varied with local circumstances. Based on the concept of site and

services, new towns have been developed in Egypt since the last decade; while the same approach is being experienced in India. The evaluation has confirmed that some projects have been partially successful in both countries; while other projects are still in progress. With regard to the execution of metroville, an evaluation confirms a failure of that site and services programme in Karachi.

9.047 The strategy for upgrading the environment in existing low-income settlements has been adopted by and applied in Philippines, Indonesia, Brazil, Tanzania, India, Bangladesh, Pakistan and many other developing countries in Africa, Asia and Latin America. This programme for upgrading the environment in low-income settlements has shown that this approach seems to be an acceptable alternative open to policy makers in most cities of the Third World and in Karachi.

9.048 The author has learned that the policies and programmes for development of new communities and projects for the improvement of environments in metropolitan areas have failed substantially to achieve the original objectives as set out in the plans for development of new community areas, satellite towns, site-and-services and metroville projects with core housing in the three countries. The projects have failed mainly due to an inadequate planning process, high costs of housing and infrastructure, non-recovery of charges for developed plots and built houses, maldistribution of acquired and developed plots, slow pace

of development and a long schedule of allocation of plots and built houses, improper execution of these policies i.e due to constraints to management, and non-participation of beneficiaries in the process of planning and execution as proposed in the plans and functions of implementing agencies.

Self-Help Concept.

9.049 Site-and-services refer to public provision of subdivided land with security of tenure, major infrastructure and often small core houses with shared or individual water, kitchen, toilet, etc. This programme is based on an approach of access to gradual servicing, credit, advice on construction process and materials, leaving the whole construction process with the occupiers. The occupiers are allowed to carry incremental development according to the improvement in their economic resources. The site-and-services programmes normally rely heavily on the efforts of beneficiaries with or without assistance, to attain their objectives.

9.050 On the other hand, this study has confirmed that, on the basis of a self-help approach, the residents have improved their housing by individual or communal efforts. The extensions to housing by communal efforts have resulted in a better environment. Self-help construction reduces costs by removing contractor overheads and profits. During the self-help construction process, the owner watches construction costs more closely than do government

officials. Hence it is assumed that in addition, the self-help techniques and reliance on local building materials can make the project cheaper and hence more affordable and provide opportunities for self-expression and the encouragement of the development of settlements and improvement of existing infrastructure services in low-income housing areas.

Proposed Strategies and Policies.

9.051 In view of the distinctive features of katchi abadis in Pakistan, imbalanced social and economic structure in these abadis which have directly affected the patterns of human settlement particularly in Karachi Metropolitan area the author has learned that the problems of katchi abadis pose a threat, both immediate and long-term, to the welfare of the people living in these areas and to the development prospects of the community as a whole. The physical, social and economic needs of katchi abadi dwellers require radical change in order to improve living and working environments in the metropolis as a whole, and in the katchi abadis in particular.

9.052 These demand effective policies suitable within the context of Pakistan, and improved methods are required in order to implement these policies effectively to solve the problems of katchi abadis in the larger cities such as Hyderabad, Karachi, Lahore, Peshawar, Rawalpindi, Quetta and other growing cities of the country.

9.053 Generally speaking, planning is a multi-functional activity, i.e. it involves more than one technique. The effective solution of the problems of katchi abadis would require policies of various types, political support, public participation, and recovery of costs of the service facilities to be provided by the government agencies in katchi abadis in the metropolitan areas of Pakistan. On the other hand, an adequate implementation of modified policies would require effective executive organisations which would be responsible for the practical implementation of policies, fuller use of the funds and enhanced public participation in the whole process of planning and implementation. Hence on the basis of evaluation of;

- a) past and present policies and their implementation
- b) achievements made
- c) constraints and their impact on development and,
- d) findings of the study, particularly of two katchi abadis in the Karachi metropolitan area, the author proposes two strategies consisting of modified policy options and methods of implementation to help the planners to solve these problems faced by the urban poor in metropolitan areas of Pakistan, and in Karachi and the Study Areas in particular. Strategy 1 contains two policy options: upgrading service facilities in existing katchi abadis and development of new settlements. Strategy 2 deals with the management system i.e methods for effective implementation of proposed policy options in the metropolitan areas of Pakistan particularly in Karachi. The two proposed strategies are as follows,

Strategy 1. To overcome the problems of katchi abadis in order to improve the degraded environments and make family life more satisfactory in the metropolitan areas.

Option 1. To Improve Living and Working Environments in order to solve the problems of basic service facilities in the existing katchi abadis in the metropolitan areas.

9.054 The environments in existing katchi abadis would be improved either by providing basic service facilities where they do not exist or by improving the quality of existing services. The success of this policy option would depend on two normative ideas:

1) Universality- communal services that are required for improvement of the whole area should be provided in the area where everybody (all dwellers) should contribute to its cost e.g water supply (standpipe) and sanitation, drainage systems and refuse disposal.

2) Selectivity- individual services that are required by people should be made available to those who have not access to sexisting service facilities e.g, a) security of title to occupied plot, b) connections for mains supply, electricity gas and sewage disposal to individual households. For proper recovery of service costs in both cases, this policy option will encourage involvement of the local people and welfare organisations (public participation).

Option 2. Development of New Settlements on the fringe of, or outside, the cities in order to solve the problems of housing, basic service facilities and unemployment in the metropolitan areas.

9.055 The development of new settlements will require a vast area of land for housing, basic services, infrastructure and establishment of industries to provide job opportunities for both skilled and unskilled people who will move from the existing katchi abadis into the newly developed settlements. To achieve the goals of the above proposed policy there would have to be provision of developed plots ready for construction on which people could build within their own resources, improving the standards of both construction and accommodation in the future. Experience has shown that, in the past, serviced plots with core houses and connections for water supply, drainage system and gas supply were supposed to be provided, but in fact they were not.

9.056 The plots would be allotted by the Sindh Katchi Abadis Authority through its Directorate of Karachi Katchi Abadis, and Area Implementation Committees in existing katchi abadis. Basic infrastructure such as roads, electricity, gas, water supply and drainage would be made available on sites by the concerned utility agencies working in the metropolitan area before the people would start building their houses. The most important prerequisite from the interest of the beneficiaries in the development of the new settlement would be security of title to the applicants.

With secured tenure the applicants would invest in their houses. The success of such a policy, primarily concerned with quality of housing and recovery of charges for plots and service facilities, would depend on opportunities for employment for both skilled and unskilled people who would move from legalised katchi abadis into the new settlement.

9.057 New settlements would be developed at a reasonable distance from the city. The authority with the collaboration of utility agencies would have to provide water supply and lay down a transportation network in order to facilitate the construction process, to help the poor people in travelling from and to their former place of residence in the city. This would help to maintain the social relationship between the people who are living in the existing abadis and those who move into these new settlements. This would also help in moving the necessary items and construction materials from the former place, local markets and the city centre into new settlements.

9.058 The goals of this policy are to solve the problems of existing katchi abadis in metropolitan areas. Hence these new settlements would accommodate people of different ethnic groups from regularised katchi abadis in a particular metropolitan area. In these new settlements the priority would be given to the residents of existing katchi abadis over the other applicants in the metropolitan area, so that:

1) the problems of existing katchi abadis could be solved, and the residents of these abadis would get more benefits from these new settlements,

2) the ethnic problems that the city faces could be solved.

9.059 This study has confirmed that migration is an uncontrolled process, therefore, the chances for newcomers to the city cannot be overlooked. The implementation of this policy may not stop newcomers from developing further katchi abadis in the city. The migrants may squat and erect their own houses in the metropolitan area. The Seventh Five Year National Plan (1988-93) has clearly mentioned that the demand of 3.5 M migrants will be met either by the housing available for the natural increase in the urban population or through temporary construction arranged by the migrants themselves. Since the local authorities will have no information about socio-economic characteristics of the newcomers, so, if the applications from other than the residents of existing katchi abadis are to be accepted, the problems of the existing katchi abadis would not be resolved, the situation would be worse than it is at present, and in turn the policy would fail to achieve its goals. Hence in the author's view in order to solve the problems of existing katchi abadis the applications should be invited and received from the residents of existing katchi abadis in a particular metropolis and they would be offered secure tenure, jobs and social life in these New Settlements.

9.060 Settlements of this kind would require a large capital outlay for selection, acquisition and development of land for settlement of large numbers of poor families. Additionally these would immediately need funds for housing, basic amenities inside houses, infrastructure, industries for providing jobs for both skilled and unskilled people, and facilities for the entertainment of residents. Due to poor economic resources, most of the governments in the Third World could not afford to develop this kind of new settlement within their own resources. Nor would the poor people with minimum savings from limited resources be able to construct their own houses and repay all charges at once. Hence the whole process would require incremental approach for development of the New Settlement, and would directly involve three categories of participant:

(1) Organisations- the authorities would acquire the land required, develop and dispose of developed plots only to applicants from legalised katchi abadis, would provide basic services and facilities, allot plots on a leasehold basis, and would facilitate loans to those occupiers who seek financial help to build their houses. (if required)

(2) Private Sector- This sector would be responsible for industrial and commercial services in these New Settlements for employment opportunities.

(3) Beneficiaries- would build houses of their own choice on a plot allocated with secured tenure.

Assessment: Policy Options in Terms of Affordability.

9.061 The analytical study of the policies executed in the metropolitan areas of the developing countries and Karachi, has confirmed that policies for housing and upgrading infrastructure in existing low-income settlements failed because these were not tailored according to the income level of the target population and the household's ability to pay charges for improvement, and / or that government subsidy was lacking. These policies and programmes have achieved some success when based on 'needs' translated into arbitrary standards rather than affordability and willingness to pay. There are four concepts which are constantly important for formulation of policies for the development of new settlements and upgrading the environment in existing low-income settlements, and which require some form of elaboration for a clearer understanding of the process. These are the concepts of services, costs, affordability and cost recovery. Cost recovery is very much influenced by the nature and quality of services, cost of the project and affordability in relation to the project beneficiaries.

Quality Level of Service.

9.062 A major challenge in developing appropriate exemplary policy options for the provision of affordable housing and programmes for improvement of the environment in the metropolitan areas, is to arrive at a satisfactory balance between the quality of the services and ability of

households to afford housing and ancillary services of that quality. The challenge is to integrate the provision of shelter with adequate physical infrastructure to ensure that the housing of today does not become the slums of tomorrow. It is also desirable to improve services in low-income housing areas to a certain minimum level; firstly to improve the living environment, and secondly for long term economic growth. According to Franceys (1991) "It must be noted that adequate infrastructure is only one of many unsatisfied needs of low-income communities." The analysis of existing service levels in Karachi's katchi abadis and particularly in the case study areas has confirmed the inadequacy of available services.

Costs of Project Services.

9.063 For a project to be accessible to its beneficiaries, the capital costs of each project must be affordable. The primary components of the projects for development and improvement of services costs are planning, infrastructure, materials, labour and standards applied in the design of projects. The capital cost of the project could be reduced by preparing appropriate detailed and action plans, providing services of acceptable quality, utilising local labour and material and reducing standards.

- Planning.

9.064 Appropriate planning of a project i.e land subdivision, design of a dwelling and layout of

infrastructure would increase the opportunities for construction of more houses. Sharing of existing utilities such as kitchen, toilet, bath, water supply and sources of refuse disposal would reduce costs of services, and benefits would be shared by the majority of beneficiaries.

- Infrastructure.

9.065 The costs of infrastructure services (mainly of road network and drainage / sewerage system) change with different projects and planning configuration. Therefore the costs of these can be reduced by reducing the standards or by increasing the number of beneficiaries bearing those costs, through most efficient planning or most likely through combination of the above. Lower width standards, building infrastructure to lower initial standards and reducing the quality of finished sewerage channels may reduce on-site costs of these elements to make them affordable to target population.

- Materials.

9.066 The use of materials that are produced locally involves the assumption that the local manufacturer would be able to produce materials of satisfactory quality, and that the target population would be capable of purchasing these at low cost from a local market instead of high cost imported materials and equipment. It is also assumed that locally produced materials would be easily available for repair and maintenance of faulty sections of construction

and parts of infrastructure. The other option for reducing the cost of materials involves the use of local construction materials i.e bricks, stone blocks and cement, and plastic and steel pipes for water supply and sewerage systems.

- Labour.

9.067 In addition to the above, the implementation of projects will require technologists and manual labour (both skilled and unskilled). Past experience has shown that skilled labour shortages, which are common in all developing countries, invariably raised the costs of projects. Generally 33% of the total cost of a project relates to labour charges. These costs can be reduced by employing available skilled and unskilled labour in local areas. This would help participation of residents and generate employment opportunities for local people.

- Standards.

9.068 The bulk of urban infrastructure investment is the responsibility of the public sector. The capital cost burden on primate cities compared to other cities is very heavy, hence it is very difficult to avoid a dramatic reduction in standards of infrastructure and services. In Karachi, housing, infrastructure and job creation costs per capita are 28.7% higher than in other cities, 77% higher than the national urban average, and 85% higher than in the small towns where costs are lowest (Richardson 1989). Capital cost constraints can be removed by reducing standards to make

projects applicable and affordable to beneficiaries, and by implementation of more efficient cost-recovery schemes.

Affordability to Pay Costs.

9.069 Affordability describes the extent to which a household can afford to contribute to costs for a specified quality service level. In order to estimate whether costs which a household has to pay out in cash for services are affordable by the target population, it is important to appreciate the difference between ability and willingness to pay. The ability to pay of target population is normally ascertained according to a generally accepted proportion of average household income. However, the willingness to pay relates to the actual service levels that households are willing to support. Thus in order to know what level of new or improved housing or services would be affordable to households requires a considerable understanding and insight into their income, expenditures (spending patterns of householders), their savings and capacity to save and the priority that they express for new or improved services. An investigation of willingness to pay often shows that the consumers are prepared to pay a substantially higher proportion of their income for services that bring significant benefits in convenience (Franceys 1991).

Cost Recovery.

9.070 Generally the term "cost recovery" refers to the concept of recouping all project costs from the beneficiaries. In real terms it is only when policies are

tailored, services are satisfactory and costs of services are affordable by the beneficiaries that an effective cost-recovery performance can be expected. For proper implementation of affordable policies and a satisfactory performance of cost recovery, an on-site office could be developed. (For functions / activities of on-site office refer to Ch.8). This will require a self-help approach i.e involvement of beneficiaries in the process of planning and implementation of the projects.

Choice of Proposed Policy Options.

9.071 As discussed earlier in this chapter, the policy for upgrading environment in the existing low-income settlements in many developing countries has largely been implemented. This policy has also been considered and applied as a suitable tool for solving the problems of katchi abadis in the large cities of Pakistan, particularly in Karachi. This study has confirmed that initially the Master Plan for Karachi Region proposed a comprehensive programme for solving the problem of katchi abadis in metropolitan areas. This programme was aimed at upgrading the existing katchi abadis by giving security of tenure to the residents and providing infrastructural services in katchi abadis which were capable of being regularised.

9.072 Later, in view of the National Policy, the President of Pakistan announced regularisation of all katchi abadis in the country existing on or before 1 January 1978. Thereafter in 1986, the Prime Minister of Pakistan re-announced the same Policy to regularise all katchi abadis existing on or before 23 March 1985. On the basis of the worse situation existing in the urban areas particularly in the metropolitan cities of the country, the government of Pakistan in the Seventh National Five-Year Plan 1988-1993 has also put great emphasis on strategy for regularisation and improvement of katchi abadis in the country.

9.073 It is understood that the financial institutions are not willing to lend money to any applicant unless he provide a document of secured property. To provide document of secured property is a precondition of receiving loan from any financial institution, even a governmental one. Hence the author considers that security of tenure would help the occupants to avail themselves of loans and would further encourage the improvement of infrastructure since the residents would feel safe and secure from the fear of eviction, and they would readily invest in the development of new settlement and improvement of the environment in the existing katchi abadis.

9.074 In view of the policies mentioned in all national plans and announced by the President and Prime Minister of Pakistan, the Sindh Katchi Abadis Authority through its Directorates of Katchi Abadis has taken over the task of

regularisation of katchi abadis and provision or improvement of service facilities in existing katchi abadis in Sindh province, particularly in Karachi metropolitan area. The study has confirmed that most katchi abadis in Karachi are lacking a full range of basic service facilities, the existing service levels need some kind of improvements in order to satisfy the needs of the residents in these areas. The author's analysis of two katchi abadis and the results of AERC's analysis of infrastructural facilities confirm that the urgent needs and priorities expressed by the residents of most (70%) katchi abadis relate to the improvement of infrastructure. Hence the author prefers the Policy Option 1 of the Proposed Strategy in order to improve physical environment to an acceptable metropolitan level.

Implementation of Proposed Policies.

9.075 Policy options 1 and 2 are now described in terms of their objectives, with guidelines for their proper implementation.

Option 1. Improvement of Physical Environment.

Guidelines:

1. Surveys: Conduct surveys in the metropolitan areas, to identify katchi abadis in metropolitan areas.
2. Legalisation: Legalise those katchi abadis which could possibly be included in the urban plan and be improved with minimum demolition of existing structures and minimum

expenditure, to benefit the maximum number of target group in these katchi abadis.

3. Security of title: Accelerate the process of issuing leases (security of title) to the occupants in legalised katchi abadis in metropolitan areas.

4. Extensions in present dwellings: Enable those householders who have large families and open space within their premises to build or extend their dwellings on leased plots in accordance with the regulations of the Building Authority.

5. Low-cost materials: Provide low cost construction materials through contractors operating in vicinity of legalised katchi abadis. Issue permits to some agencies for purchasing and selling of low-cost construction materials at fixed costs.

6. Provision of services: Provide infrastructure facilities and social services in those katchi abadis which have been surveyed, analysed and approved for the implementation of regularisation and improvement programme.

7. Improve the quality of infrastructural facilities and social services in those katchi abadis where these services and facilities exist.

8. Priority: Offer houses in the New Settlement to the residents of katchi abadis where the regularisation and improvement schemes have been implemented, and the abadis

are facing problems of overcrowding due to insufficient accommodation for the families living there. (see option 1)

Existing Infrastructural Facilities Level.

9.076 The unreliable and intermingled supply of water in addition to inadequacy of sewerage and refuse disposal systems has continuously exposed the inhabitants to the contaminated waste and endangered their environmental health in the metropolitan area. The level of existing infrastructure varies from one katchi abadi to another depending on the process of development, response from the political leaders and local authorities, and contribution of the residents towards the implementation of projects. The number and proportion of households that have access to existing infrastructural facilities in Lyari and Korangi are shown in Table 9.4.

9.077 The three components of infrastructure shown in Table 9.4 are being assessed in terms of improvement of the quality level of service with respect to affordability of the beneficiaries. Only water supply component is being investigated in more detail in order to estimate order of costs of project. This is done because the author considers that a costing method for one aspect would be an appropriate technique to demonstrate a suitable approach for all in this study. It is assumed that the cost of a sewerage system will be a little more than the cost of water supply; while the cost of 'solid waste management' project for improvement of

the environment in katchi abadis will be a little less than the cost of water supply.

Table 9.4 Households (%) Having Access to Existing Facilities in Lyari and Korangi Respectively.

Facility	Existing Sources											
	Number and Proportion of Households											
Water Supply	Mains	Standpipe	Handpump	Tanks	Others	None						
Number	7	40	2	6	45	8	6	7	1	19	19	0
%	8.7	50	2.5	7.5	56.2	10	7.5	8.7	1.3	23.8	23.8	0
Sewage Disposal	Piped drainage		Ground		Pit Latrine		Others					
Number	71	31	6	39	2	8	1	2				
%	88.7	38.7	7.5	48.8	2.5	10.0	1.3	2.5				
Refuse Disposal	Containers		Streets		Burn		Fuel		Others			
Number	38	50	9	27	0	3	0	0	33	0		
%	47.5	62.5	11.3	33.7	0.0	3.8	0	0	41.2	0		

(For details refer to Tables 6.5 - 6.7 and 6.28 - 6.30.)

Need for Improvement of Existing Water Sources.

9.078 The people in Pakistan obtain water from various sources such as rivers, wells, ponds, streams and springs which are likely to be polluted and result in a large number of water-borne diseases. In addition to the sources mentioned above, the people in urban areas collect water through mains connections, public stand pipes and handpumps.

In katchi abadis, a higher proportion of the residents depend on hand pumps as a source of water and others collect from mains and stand pipes, which they have arranged either privately or through the appropriate authorities under the development projects.

9.079 In many katchi abadis, due to the intermittent nature of the supply of water and the outdated distribution system, people purchase water from vendors. The vendors collect water from ground surface sources or from other parts of the city where public standpipes are available. It is common practice that water comes through mains and standpipes in various areas for limited hours at different intervals. If the people of one area cannot collect water when it comes in their own area, these people and the vendors who collect water in large quantity immediately rush to other areas, where in turn there are big queues at public standpipes. Due to limited supply there is a shortage of water, and the residents of that particular area cannot get the required water from public standpipes. Presently one public standpipe serves 1000 or more people in the metropolitan area. The quantity and quality of water to which people have access is a most significant factor in the environment.

9.080 The people need water principally for drinking, cooking, bathing and laundry. Religious and social activities also affect the quantity of water. On the other hand, the water distribution system also affects the quality and quantity of water supply to the beneficiaries. The inadequate planning (layout) and poor maintenance, coupled

with problems of intermittent supply and leakages in system (common in Lyari), give rise to many health problems and unhygienic conditions. Thus availability of sufficient quantity of wholesome water is of great importance for the improvement of physical environment in katchi abadis. In both case study areas, the people collect water from mains, standpipe, handpumps and purchase water from vendors (refer to Table 9.4). In order to suggest the most suitable and affordable source of water in katchi abadis, the author assesses different options for each source with regard to the cost of project services, materials, labour and standards.

Improvement of Water Supply.

9.081 The principal objective is to provide a reliable supply of water in sufficient quantity and of good quality which is readily accessible to the beneficiaries.

The project aims to:

- i) provide a higher service or upgrade level of existing services.
- ii) improve the quality of existing service facilities.
- iii) satisfy the needs (demand) of target population on an individual or communal level.
- iv) be based on consumption of low-cost, locally produced materials.
- v) be affordable by the beneficiaries.
- vi) be adaptable to local physical, social, cultural and economic conditions of the beneficiaries.

- vii) be easy to implement, involving only a small number of highly skilled people and technocrats.
- viii) be financed through self-help.
- ix) appreciate and encourage the efforts of beneficiaries.
- x) facilitate and encourage improvement to housing.

Criterion for upgrading facilities.

9.082 The distribution network of water supply exists in both case study areas, and the residents collect water through services as they exist. Hence the total cost of any upgrading project will depend mainly on the cost of extra materials, labour and transportation. The capital cost of upgrading the public standpipe system will primarily depend on the location and number of standpipes to be provided in each area to serve a certain number of the residents, so that the people will not have to wait or walk unreasonably long distances. It will therefore be necessary to take into account the opinion of the local residents regarding suitable locations for public standpipes.

9.083 With regard to upgrading the mains supply in order to provide connections to individual households, the capital cost of the project will mainly depend on the length of the pipeline required to provide such a facility to individual households in the area. The plan of the area and the housing layout affect the location and number of standpipes and length of pipeline required, hence this exerts a strong influence on the cost of the project. On the other hand, the possibilities of upgrading the piped water supply i.e.

public standpipes and connections to individual households will depend on the capacity of the site distribution network. There are two possibilities:

1) The existing site distribution system is capable of supplying water to satisfy the needs of the residents only through public stand pipes;

2) The existing system has large enough capacity to satisfy the ultimate water demand when all houses are provided with individual connections to the site distribution system.

Considering these influential elements, the author has proposed the following three different cases for upgrading the water facilities in both case study areas and in other katchi abadis where a distribution network exists.

Case 1. Public Stand Pipes.

a) One stand pipe to serve 40 households.

b) One stand pipe to serve 20 households.

Case 2. Mains Connections to all individual households.

a) Each house being 9 m away from distribution system on average.

b) Each house being 6 m away from distribution system on average.

Case 3. Mains Connections to 40 individual households and the remaining 40 households would be served by stand posts.

a) Each house being 9 m away from distribution system.

b) Each house being 6 m away from distribution system.

Evaluation of Cost and Benefits of Each Facility.

Case 1. Public Stand Pipes.

9.084 Presently one stand pipe serves an average of 1000 or more people in all katchi abadis in Karachi metropolitan area. In Lyari only 2 (2.5%) sample households collect water from this facility; whereas in Korangi a slightly higher proportion (7.5%) of the sample of same size collect water from standpipes. These small proportions confirm the general lack of this facility in both areas. In order to provide this facility to large number of the residents, if we provide one standpipe for 40 households with an average family of 7 persons per household or to serve a total of 280 people, the area will require 2 standpipes. A further improvement to the level of service i.e. one standpipe to serve 20 households, would require provision of 4 standpipes in the same area. Since the capital cost of one standpipe including cost of materials and labour approved by the Public Works Department of Sindh government is Rs.1000, so in the implementation of Case 1 (a and b), the 80 households would have to pay Rs. 25.00 and Rs. 50.00 per household towards the capital cost of two and four standpipes respectively.

Cases 2 and 3. Mains Connections to Individual Households.

9.085 Presently, some 33% of households have access to piped water through the Indus River and the Hub Dam, the main sources of water supply in the city. In all katchi abadis some 53% of households do not have access to piped water, in

Lyari a very high proportion (71%), and in Korangi about 50% of the sample households do not have connections to mains supply. The katchi abadis in Karachi are developed without considering planning, laws and regulations. Hence the layout of the area and housing patterns vary throughout. In Lyari most of the houses have a small plot (30 sq m), and streets and lanes are narrow. The distribution system runs along the the major streets.

9.086 In Korangi, the settlements are developed more recently, some being established at present. The residents have occupied plots of large sizes varying from 37 sq m to 55 sq m. The streets are wider than in many other katchi abadis. In Korangi many industries have their own water plants, and distribution system exist in planned areas so that the residents of katchi abadis have obtained connections for piped water supply by making a personal approach to the industrialists. Water collected through these privately obtained connections is used by the residents without paying any water charges. These privately obtained connections could be authorised by upgrading the distribution network and connections to individual households. The average size of plot in other katchi abadis in the city is 50 sq m (refer to Figure 4.4). The level of existing services does not differ from the level in Korangi.

9.087 If it is assumed that all the households are located either at 9 m or 6 m away from the distribution system then the total cost of the projects for the implementation of options will be Rs. 31700 and Rs. 22100 respectively. All 80

households would have to pay Rs. 396.25 for option (a) and Rs. 276.25 for option (b) toward capital cost of the projects. While implementing Case 3, if 40 (50%) households are at a distance of 9 m and the remaining 50% are 6 m away, then the capital cost for options a and b would be curtailed to 50% of the original cost. At the same time due to a fall in the number of households, the amount to be recovered would remain the same as for the options in Case 2. With regard to charges and methods of collection, presently, the KMC collects water charges Rs. 60 per year from consumers in Karachi. The KMC issues bills to the householders once a year, and the occupants deposit that amount (Rs.60) in the authorised banks.

How much can the sample households afford to pay?

9.088 The statistics about monthly income and expenditure of sample households in Lyari and Korangi are shown in Tables 6.20 and 6.43 respectively, and a comparison of income and expenditure of family members in both areas is shown in Tables 6.23 and 6.46 respectively. The average household income and expenditure in katchi abadis in Karachi are shown in Tables 7.3 and 7.4. from AERC's analysis. That analysis shows that an average household in katchi abadis has savings up to Rs 50 per month. On the other hand, based on actual income and expenditure of sample households, the author has assumed that the minimum income for subsistence for an average 7-person household would be Rs 1200 for those who have owner and squatter status; and Rs 1500 for those who are tenants. The breakdown of subsistence shows that in both

cases a household would have savings up to Rs 60 per month. The statistics further show that households having access to facilities spend this amount to pay charges for services; whereas the households who have no access to services will have this amount as savings, and they can afford to pay charges for services that would be provided to them in the future. Thus the AERC's statistics and the author's findings confirm, that a household have perhaps Rs 50 to 60 per month of disposable savings.

How do they spend these savings at present?

9.089 The residents in both case study areas mentioned that they pay Rs 40 to 60 per month to purchase water for drinking and other purposes from water vendors, especially in the winter season when the regular supply of water is interrupted. The residents (not all) in katchi abadis in Karachi deposit minimum Rs 5 per month with Bisi committee (other than local welfare organisations). The amount received from Bisi is spent for improvement of house, purchase of clothes, shoes and gifts especially on religious occasions (e.g Eid) or wedding ceremonies (refer to Chapter 7). The third source of utilisation of saved money is a contribution to Welfare Organisations, who in return spend the collected amount for the development of the community. In addition to these payments, the residents of Lyari also pay some amount (not mentioned) to sweepers for collection of refuse deposited outside the doors of their houses and for cleaning streets. From the above it is clear that the residents in katchi abadis either individually or

collectively spend their savings for the development of their own dwellings or the community as a whole. Hence there is a need for programmes to provide advice, guidance and training in order to utilise these savings and capabilities of the residents in the process of planning and execution of projects for development and improvement of settlements.

Recovery of Charges.

9.090 Since the poor would not be able to invest the bulk amount for upgrading the level of existing facilities, the local authorities would have to initiate projects from local funds. The amount spent on the implementation of each project would be repaid by the beneficiaries in instalments over a certain period. At the present rate of water charges i.e Rs.5 per month, for the improvement of public stand pipes, the beneficiaries would pay for 5 and 10 months respectively. For the upgrading of facilities in Cases 2 and 3, we identify that the total cost would be repaid in a period of 79.2 months and 55.2 months. The authorities responsible for implementation of projects would have to invest sufficient funds for upgrading the services to provide connections to individual households. The analysis of the capital cost of the project for all three Cases with respect to charges to be recovered from households shows that the cost and fixed charges are very reasonable, and could be afforded by the beneficiaries. Hence the author suggests implementation of Case 3 i.e Public standpipes and Connections to individual households in katchi abadis in the metropolitan area.

Implementation of the Project.

9.091 Due to limited financial resources with the authorities and paucity of savings with the beneficiaries, initially the projects for upgrading can neither be implemented in every katchi abadi nor can each facility be improved to a high standard at the same time. This does not mean that nothing is to be done. Selection of a single area which needs urgent attention for all development at a time is one alternative, but this will result in neglect of other katchi abadis for many years. Every katchi abadi lacks basic service facilities to different levels, and the residents of individual katchi abadis also express their priorities and demand for improvement of various facilities. Hence incremental improvement appears to be a suitable, feasible, acceptable and viable alternative. This idea has multiple meanings but several of them are relevant and could be applied in combination. In our project the incremental improvement implies initial provision of components at a basic standard with the possibility of upgrading in the future. For instance, provision of public standpipes for the first half of the population and individual connections to the second half, and the final objective being mains connection to all individual households. The Directorate for Karachi Katchi Abadis would be responsible for execution of the project, and deciding priorities within the development scheme as a whole.

Table 9.5 Cost Estimation of Proposed Improvement Scheme.

PARAMETER	Type of Scheme					
	Standpipe			Service pipe		
	No of Houses			Length in meter		
	40	20		9	6	
			Households served (%)			
			100	50		
Project Cost Rs	2 K	4 K	32 K	16 K	22 K	11 K
unit cost Rs / House	25	50	400	400	275	275
Recovery Period in months @ Rs 5/ month	5	10	80	80	55	55

Estimated Cost Structure

Standpipes

Rs 1000 each

Service pipes

materials : 2.5 mm dia service pipe @ Rs 40 / m
 valves etc. @ Rs 15 / service

labour: team of 4 skilled + 4 unskilled @ Rs 240 / day

time to lay 80 service pipes of 9 m long = 5 days
 time to lay 80 service pipes of 6 m long = 4 days

transport allowance Rs 500 for delivery of materials

supervision (by employed officials) no charge

profit not applicable self-help

(For details see Appendix 4)

Improvement of Sewerage System.

9.092 Due to improvement to existing service level of water supply i.e increase in the number of public stand pipes and mains connections to individual households, there will be an increase in the consumption of water. This increase will in turn raise the quantity of sewage or wastewater from the area. The quantity of sewage produced varies with the quantity of water supplied, rate of consumption i.e used for washing clothes, utensils and floors, personal hygiene. The supply of water to individual households will significantly increase the quantity of sewage to be disposed of through the existing sewerage system in katchi abadis. Insufficient capacity to drain the sewage produced will lead to flooding in the area, which subsequently will result in deterioration of road and path surfaces, damage to buildings and their contents, and restriction of the movement of pedestrians and vehicles.

9.093 The resultant pools and puddles in the streets and around standpipes become breeding grounds for mosquitoes and flies; and decay of organic matter may result in unpleasant smells generally as insanitary environmental conditions develop in the settlement. Thus in order to improve the environment, the provision of a comprehensive drainage system in new settlements and upgrading of system in existing low-income areas is an essential part of planning. The problems relevant to the sewerage system of any particular katchi abadi cannot be solved independent of the

city's drainage system. A comprehensive drainage system consists of the following components:

- site drains (piped) which carry drained sewage to one or more manhole points at the site boundary.
- main drains running from the site which carry the sullage drained from one or more low-income housing areas.
- major water courses such as lakes, rivers and the sea into which the wastewater of the whole city flowing through the trunk sewers ultimately discharge.

Need for improved sources of sewage disposal in Karachi.

9.094 At present, due to the inadequate sewerage system, a very high proportion (75%) of Karachi's total 7 million population or 52% of the households are not connected to any proper sewerage system. Most of the city's sewage discharges directly into nightsoil collection points, open land, pit latrines, nallahs, sewer manholes, major water courses such as the River Lyari, and the Arabian Sea (south of Karachi), so worsening environmental conditions. In those katchi abadis where a piped sewerage system is available, the residents also use unhygienic methods of sewage disposal.

9.095 The level of existing services in both Lyari and Korangi, the case study areas is shown in Table 9.4. The statistics confirm that a very high proportion (61%) of households in Korangi used unhygienic means of sewage disposal in comparison to 11% of sample households in Lyari. The study has confirmed that in Lyari, the existing system

has been provided in the recent past, and needs proper maintenance (refer to Chapter 6), while in Korangi and other katchi abadis the system needs much more urgent attention and requires some significant measures in order to upgrade the level of the service facility and quality of physical environment. Hence the author appraises each means of sewage disposal used by the households, in order to propose suitable options to improve the quality of sanitation in katchi abadis in the metropolitan area.

i) Piped Drainage System.

9.096 The provision or improvement of this means of sewage disposal would require smooth-surfaced roads of high quality for drainage of the storm and wastewater through a buried pipeline system. Such a system has regularly spaced inlets or gullies along either side of main access roads, through which rainwater discharges into the natural water courses—river and sea. In Lyari, under JRP (1970), the main access roads were constructed and a piped drainage system along with electricity and gas facilities was provided. Except in the central parts of the township and industrial area, the katchi abadis in Korangi and in many other parts of the city are lacking roads with a bitumen-bound surface. In the author's view the projects for provision or upgrading of sewers in such settlements would require due consideration of road network. Hence the Sindh Katchi Abadis Authority should develop these settlements on the basis of needs and priorities of the residents and overall priority of affected

katchi abadis. The statistics shown in Table 9.4 show that nearly 90% of the sample households in Lyari have access to a sewer system. It is alleged that due to poor system maintenance the existing pipe lines are blocked and the system is not working properly. Hence the author would suggest that the authorities responsible for katchi abadis should maintain this system and facilitate the same services to the remaining households in Lyari.

ii) Open Channel Drains.

9.097 When the heads of sample households were asked to specify means of sewage disposal other than piped drainage, pit latrine or ground; the heads mentioned open channel drains. Presently, this source of sewage disposal is used by a very low proportion in Lyari (1.3%) and Korangi (2.5%). The waste-water is collected in hand-dug ditches (approximately 0.6 m x 0.6 m x 0.9 m) alongside the walls of the house, either inside or outside and is cleaned out every few days. The cleaned out wastewater is laid down within the plot or in the streets and takes a few days to dry. As soon as this water dries out, another batch of cleaned out water is laid down so that the soil becomes permanently moist and finally a standing pool develops. This standing water provides a breeding ground for flies and mosquitoes.

9.098 In the author's view this means of sewage disposal could be introduced by improved methods in all those katchi abadis where road network and piped drainage do not exist.

The existing ditches and others beside walls of houses could be excavated of the same size (say 1 m x 1 m x 1 m). In order to reduce the land-take, vertical side walls can be constructed and lined to give additional stability. The open channel up to 0.30 m deep can be filled with broken pieces of bricks or stones, then the bed and sides of the remaining 0.6 m depth and the top of the hole can be rendered with mortar to provide a smooth surface which has less resistance to the flow of water and which will limit damage to joints. In order to clear solid deposits (stones) and refuse thrown by walkers the open channels should be cleaned regularly. For further improvement in order to avoid solid deposits and refuse concrete slabs could be used to cover the open channel drains. If the drains are covered with slabs, the slabs must be sufficiently robust to resist superimposed loads, and light enough to be removed in order to clean the drain at least fortnightly. The drain which carries sewage should have a semi-circular invert in order to maintain flow velocity of about 0.5 m / sec even when the discharge is small. The existing practice of hand dug ditch inside the houses should be completely abandoned because they will need an extra pipe to be connected to open channel drain that is provided outside houses for the whole area.

iii) Pit Latrines.

9.099 The data for pit latrines as source of sewage disposal confirms that a low proportion of households use this source in Lyari (2.5%) and Korangi (10%). From data and personal

knowledge the author has learned that presently this source of sewage disposal is used by the individual households mostly in rural areas. There are no pit latrines provided by the local authorities in the metropolitan areas. The provision of this source at community level would require trained staff, machinery, high cost for excavation, lining upto certain depth, disposal of excavated soil and efforts to maintain the system especially in hot countries like Pakistan. Hence the author deems this source would not be beneficial in the metropolises of Pakistan.

Cost of the Project and Recovery.

9.100 Drainage / sewerage system is a communal service facility, from which every resident on the site benefits. The cost of a sewerage system will be many times more than cost of the open channel drain system. The cost of open channel drains essentially consists of bricks, stones, cement, sand, precast drains to connect lined holes to the main points of disposal. This will also involve the cost of labour, however the cost of the project would be minimal if the skilled and unskilled labour within the local community were used on a voluntary basis.

Recovery of the Cost.

There are many ways in which the projects can be executed at low cost and the cost recovered from the beneficiaries.

- the local authorities responsible for development and improvement of katchi abadis would execute the project and recover the cost through property tax.

- the community welfare organisations collect money from the residents through sub-community organisations and repay the cost of the project executed by authority.

- the community contributes skilled and unskilled labour as far as is possible, and could raise finance to purchase low cost materials and any skilled labour which is not available on site.

- the group of householders with a little technical help and guidance from the on-site office can assist in the execution of the project.

- the politically elected leaders and leaders of welfare organisations can help in the whole process of execution and in recovery of the project costs.

Improvement of Refuse Disposal System.

9.101 The preparation and execution of the "waste management" or "refuse disposal" programme requires consideration of four functions: collection, transportation, processing and disposal. The collection of refuse generated in the low-income area involves a two-step functional system: an individual and a collective. Both systems entail the use of standard sanitation practice to minimise adverse impacts from public health and aesthetic standpoints. The individual collection system depends on the function of a single means of refuse disposal adopted by individual households; whereas the collective system depends on the operation of collective means used by the sub-community in medium-and-high density areas.

Need for Improvement of Existing System.

9.102 At present about 33% of the total refuse generated daily is collected, transported, processed and disposed of properly in the city of Karachi. In many katchi abadis, even a minimal level of refuse disposal service is not available. Due to inadequate services the refuse or human waste is accumulated in nallahs passing through the city, or in existing sewerage system and outfalls falling into major water courses. On the other hand, where these sources are not frequently available most refuse is dumped at the corners of lanes and streets, on roads and adjacent vacant plots near residential areas. This is particularly due to

the facilities provided by the municipality- staff employed, vehicles, plant and sites for collection, transportation, treatment and disposal of refuse produced in the city - are insufficient generally and distant from most katchi abadis.

9.103 The comparative study of existing level of services and methods used by the sample households in Lyari and Korangi (refer to Table 9.4) shows that the majority of residents in Lyari deposit collected refuse outside their houses or they use the containers provided by Karachi Metropolitan Corporation and only 11% throw refuse in streets; whereas in Korangi a substantial proportion of the sample households throw collected refuse on vacant land (62.5%) and in the street (34%). These unhygienic means of refuse disposal may result in a danger to human life and a hazard to the local environment. From the above information it is clear that the areas like Lyari where existing service facilities are not properly used need better maintenance to enhance the quality service; whereas Korangi and other katchi abadis need the introduction of an improved system to upgrade the physical environment. Hence the author assesses the means of refuse disposal adopted by the residents in existing katchi abadis and suggests methods to improve these means in the future.

i) Containers.

9.104 The local authorities have constructed containers 2 m x 1 m x 3 m containers beside open drains on the sides of roads in Lyari, and over the small gutters running beside

roads in Korangi. The existing containers built of masonry have an open door without fixed wooden or iron frame. Due to this the residents (mostly children) and sweepers who collect refuse from outside the doors of houses throw it at the open door of containers. Cattle and dogs also come and disperse the refuse which finally blocks the drains, and streets become full of refuse and so flood. Hence this source of refuse disposal could be improved by constructing more containers at a distance of not more than 200 m from each sub-community with a fixed iron door to protect them from animals and vandalism. The built containers should have a large enough capacity to accommodate refuse from at least 6 large bins provided in the streets. Keeping in mind the existing level of services, their improper use and poor maintenance in Lyari, the author suggests that the existing services should be properly maintained. The services should be improved by providing more containers at appropriate places. The existing practice of keeping refuse outside to be collected by sweepers should be condemned and a self-help spirit should be created amongst the community to use these services by themselves. In Korangi and other katchi abadis, containers should be provided and a self-help approach be encouraged. In addition to the means mentioned above, the author suggests the following facilities in order to achieve the objective of upgrading the environment in katchi abadis.

ii) Small and Large Bins in the Streets.

9.105 The single-family households could keep waste in small baskets inside the house instead of keeping them outside the door. Then the residents could dispose of it either in the large bins provided in the streets or in the containers built at a walking distance away from overcrowded areas. The existing method of keeping refuse outside the door should be minimised. A sense of self-help within the community should be developed to deposit it in large bins provided at a walking distance. This will save the fee presently being paid to sweepers, and this fee could be used for improvement of local systems. In the overcrowded areas where due to large families more refuse is generated, the households can use large portable bins with well-fitting lids made of plastic or metal having a capacity of approximately 70 litres. Whilst using both types of bin the impact of unhygienic conditions should be well considered in advance.

Large Bins for Disposal of Non-Residential Refuse.

9.106 In addition to the means mentioned above, special provisions have to be made for hazardous and nuisance wastes such as refuse from hospitals and clinics (which may contain a very high concentration of infectious materials), oils and other highly inflammable substances, and explosives. These should not be disposed into the bins and containers at any point. For their collection, transportation and disposal or destruction, special arrangements should be made at specific locations by trained personnel to avoid fire risks, smoke and unpleasant smells in the area.

Implementation of the Project.

9.107 An office on-site should be established in order to provide efficient execution and control of these services. The participation of local elected leaders and of community organisations in the process of selection of location, execution of project and proper use and maintenance of improved system would enhance the sense of realisation and self-help in the community to gain more benefits and to maintain the system permanently.

Administrative Arrangements.

9.108 The implementation of projects of this kind would not require large numbers of senior administrators, professionals, skilled or unskilled labourers. The proposed project could be carried out with the involvement of one officer from the office of Directorate Karachi Katchi Abadis who should visit the site and check the progress of constructional work. The surveyor (professional) from the same office would guide and help the tradesmen (plumbers) in the process of laying down and fixing the water pipelines according to the specifications; whereas unskilled labour would assist the plumbers in the whole process. The proper execution of the project would require an on-site office which would be used for keeping plans and other office records for quick reference. In most katchi abadis the existing local welfare organisations have established their own offices at sub-community levels, one of these offices could be used for the purpose of a site office. The site

office would provide fully adequate information about the project to the residents, and would try to solve problems relevant to execution (if any occur) with the help of local organisations.

Financial Arrangements.

9.109 In view of the national policy for regularisation and improvement of katchi abadis as described earlier, it would be possible for the authorities to regularise katchi abadis, legalise rights of tenure to the residents and collect lease charges from them. The lease rates are based on size and use of plots (refer to Table 4.8). At present, the Directorate of Katchi Abadis has regularised 288 katchi abadis in the city of Karachi, and is engaged in the process of issuing leases for the plots to their occupants. Since charges for the lease of plots are recovered from occupants in easy instalments over a long period of 99 years, this shows that the residents can afford to pay the nominal charges fixed for lease of plots. On the other hand, the amount paid by beneficiaries in monthly or yearly instalments would not be sufficient even after recovery in a few years to initiate the execution of a project in that particular area.

9.110 Nonetheless the amount collected for lease charges from one area could be used to finance development in other areas. Hence the authorities would have to arrange sufficient funds from their own budget for the initial development and improvement of katchi abadis. The revenue received from recovery of lease charges from beneficiaries

could be spent on the further development of a particular katchi abadi in the future. Since the improved services are expected to work without damage for a certain period, the amount collected from charges for improved facilities could be saved for the maintenance of services in the future.

Option 2. Development of New Settlements.

9.111 Guidelines:

9. Estimation: In the light of Guidelines 1, 2 and 8 the actual number of families who would require shelter should be calculated.

10. Land acquisition: On the basis of calculated number of families, select and acquire available land inside or outside the metropolis.

11. Land Subdivision. Divide the whole acquired land into zones for different land use purposes such as residential, industrial and commercial, social services and recreation.

12. Disposal of Plots: Provide developed plots according to the needs of those applicants who would be settled in New Settlements.

Note. Implementation of Guideline 11 would attract the private sector or small business initiators to establish industries and commercial centres within settlements. This would enhance job opportunities for both the skilled and unskilled labour pool in New Settlements.

13. Job Opportunities: The industrialists should be invited and encouraged to establish the kind of industries and business that would provide employment opportunities to the local skilled and unskilled residents. A project of this kind has been implemented in NOIDA, Delhi, hence projects of this kind could be experienced in Karachi.

14. Priorities: The priorities for shelter and jobs should be given to the applicants of different ethnic groups from various legalised katchi abadis within a particular metropolitan area.

15. Applications: Allow each applicant to apply for only one plot in any one of all the announced Settlements.

16. Lease or Guarantee of Tenure: Complete the process of allotment of serviced plots and procedure of leasing before people move to the Settlements.

17. Agreements: Make an agreement between the authority and applicants. The Authority should be responsible for the issue of a lease in the name of the applicant whereas the applicant should give assurance of non-transfer of the leased plot (for ever) to any other local resident or someone from other Settlements or a third party from the city except a member of family, unless with authorisation. The transfer of a plot in an official way would authorise that member of family to receive benefits from development and financial institutions that he may need for improvement of living standards in the near future.

Note. Guideline 16 (if necessary) could be applied with some modifications. To begin with, a certificate of ownership would be issued to the applicant in order to carry out self-construction on allotted plot. When the whole process of development (responsibility of authority) and construction (householders) is completed and an authorised family is shifted into the new house, the head of household would obtain an official document of ownership.

18. Houses: Allow the applicants to carry out the process of self-construction in the New Settlements.

Note. Provision of low-cost materials would encourage the applicants to build their own houses and make Settlements more successful in practice.

19. Services: Considering the reasons for non-occupancy of plots in Baldia and Korangi, and failure of the Metroville project it would be sensible that before the occupiers start building their own houses, the Authority with the collaboration of utility agencies should provide a water supply to facilitate the construction process and lay down a transportation network in New Settlements. The authority may also arrange a public transport facility to and from the city. This would help the poor people to travel at low cost to move the necessary items from their former place and also construction materials from the local market into the new area. Simultaneously the Authority should develop social services and recreation facilities in these Settlements. This initial phase of development carried out by the local

authorities will encourage and attract the residents to actively take an interest in the development of the new settlement.

20. Loans: The project should aim at a self-help approach. The authority should facilitate every opportunity i.e low-cost materials, appreciate skilled labour in the process of construction, provide training facilities for unskilled labour, and water supply and transportation to avoid use of loans and other external financial resources.

21. Repayments: The householders would repay the price of the plot and charges for services in easy instalments. The amount and schedule for repayment of the price of plot and charges for services could be arranged according to the affordability of the beneficiaries.

Land Required for Development.

9.112 For the purpose of carrying out any kind of development in the city, the first required element is availability of land. Without land the willing builders will be disappointed and the proposed policy will fail in practice. In order to develop new settlements the authority will have to designate a substantial area of land, acquire it from the owners and develop it before the actual construction can start on sites. The selection, acquisition, distribution and allotment of land will depend not only on the number of applicants (households) who are willing to move into the new settlements but also upon the number of

houses to be built and their type. As no figures have yet been set for building houses, it is difficult to predict precisely how much land will be required per year. For the purpose of bringing changes in legalised slums, the authority will have to survey the areas and keep an up-to-date record of land use.

Housing and Services to be Provided.

9.113 The basic function of housing is to offer shelter, seclusion and basic facilities and amenities either inside or outside that would make home life pleasant. On the one hand, quality of housing and environment is the pressing problem on which other difficulties are superimposed. On the other hand, modern technology has imposed a further invitation to the planning activity to consider the years yet to come. Keeping in view the needs of the residents and the goods and equipment they have in their homes in the near modern future, one should suggest the design and spatial layout of a house in a way that would accommodate the family members and the whole range of modern household items: modern bathroom, kitchen equipment, clothes, books of future generation and personal transportation. Keeping in mind improvement to the present limited resources of the householders the issues of subletting should also be considered while designing a house to be built in the New settlement or extensions to be made to the existing ones. In addition to the above, the design and space of a proposed house should be based on the source of income, actual income

and expenditure of the householders and their capacity to afford building and maintenance of house.

9.114 Hence the author suggests that a dwelling should:

1) be of a satisfactory size so that when related to family size an occupancy rate of not more than approximately two persons per room could be achieved,

2) have bathroom, whether attached or separate.

3) have w.c facility, preferably situated in the courtyard.

4) have a kitchen large enough to accommodate modern labour-saving devices, with an external window.

5) have basic amenities inside the house.

6) have an open space reasonably large for further extension to the house as the size of family increases or householder wants an extra built room to let on rent to earn more money.

7) have an spare room for keeping extra goods. In Pakistan due to social relationships and dispersed families, having guests is a common trend so people keep extra goods in their houses. The proposed spare room would be used either for keeping food in large quantities, extra quilts and other goods for use in emergencies or a room for paying guests as a source of income.

8) have bedrooms sufficiently large for children also to be used by them for study and entertaining friends.

9) the house should be properly connected to the drainage / sewerage system and have adequate facilities for refuse disposal to provide a healthy living environment.

Types of Housing and Number of Bedrooms.

9.115 According to Sazanami (1984) "one housing unit per household and one room per person are the minimum standards that every country would like to set, although these are quite unrealistic goals for many." In view of the findings of this study, it is absolutely impossible to provide one room per person in the metropolitan areas of Pakistan to achieve the standards suggested by Sazanami. In the context of Pakistan, it would be preferred either to construct a detached single-family house or a one-storey house with at least two bedrooms. Generally a plot of a minimum 160 sq m should be provided in the New Settlement Schemes. The size of occupied plots in existing katchi abadis would not be changed. A comparison of findings (table 7.2) has shown an occupancy rate of 8 to 21 persons per household having one to five bedrooms and an average of 6.2 persons per bedroom in Lyari, an occupancy rate of 6 to 15 persons per household and an average of 4.3 persons per bedroom in Korangi. To solve the problem of overcrowding each dwelling should have at least two bedrooms.

Proposed Standards for Residential Environment.

9.116 To achieve the objectives of the proposed policy, the following standards of residential environment should be applied in the metropolitan areas.

1) There should be provision for the safety for pedestrians, and particularly for children in plans for the development of communities. There should be footways along the main streets, the heavy vehicles should not be allowed in the residential areas, the speed-breakers should be installed to reduce the speed of vehicles near schools, mosques and community halls and speed-limit signs should be fixed along the main roads and streets.

2) There should be parks and playgrounds for the community as a whole, and for children in particular. At least one large park covering an area of 0.5 ha per 1000 population, and small parks consisting of playing facilities for children should be developed in new settlements.

3) There should be a proper provision of commercial and social services e.g mosque, schools, dispensaries, small corner shops, community halls and sports clubs. The mosque, schools and dispensaries should be located at sites free from traffic noise and other disturbances, with an easy and approach route.

4) The hardness of paved areas and buildings should be counterbalanced with some areas of grass and trees, all

arranged so that an interesting visual environment is created. The trees should be planted along the side of main roads and in public parks. The residents should be advised and encouraged to grow small plants and trees on the open spaces and in their house-gardens.

5) There should be maximum provision of garage or parking spaces, an ideal of one car park in each new settlement should be aimed at to accommodate 30 - 40 motorised vehicles on 45 sq m. Free car parking, pay and park and reserved place systems could all be introduced. The income from pay and park and reserved places could be spent for wages to persons taking care and maintenance of the settlement in the future.

6) Undesirable land uses that the residents do not want and that are also hazardous from a planning point of view should be excluded from these residential areas, for example a filling station (locally known petrolium pump), industries and factories, and cinemas should be located away from the residential areas.

7) The neighbourhood of which the developed or improved areas become a part should have a reasonably balanced population and therefore a wide range of sizes of plots should be provided.

8) The standards 1-7 could be applied with the least possible demolition in legalised katchi abadis within the metropolitan areas. In the old katchi abadis like Lyari,

implementation of all these standards would be a little difficult due to irregular layout and construction of the houses and non-availability of open spaces in the area. Whereas in Korangi and other recently developed katchi abadis due to widened streets, open spaces and newly-built houses implementation of these standards would be possible if the government and local authorities were interested in the improvement of these settlements.

Arrangements for Financial Aid.

9.117 As described in earlier sections of this chapter, finance is one of the major constraints on the process of development in Third World countries, including Pakistan and particularly Karachi. Hence substantial funds will be required for the execution of preferred policies to reduce the problem. Certainly, this will need the establishment of more efficient financial institutions or an improvement in the present system of financing in order to remedy the inadequate distribution of funds, improper utilisation of available funds, discouragement to the poor from availing themselves of loan facilities and limitation of resources.

9.118 In the context of Pakistan's poor economy and the limited resources of the poor people, foreign grant or bank loans at low interest will be required to be used as seed capital for the provision or improvement of housing, basic services and infrastructure in the katchi abadis and newly developed settlements. It is assumed that the Provincial Katchi Abadis Authority, (independent of PDWP) will approach

the International Funding Agencies to receive economic aid and technical assistance for the solution of problems of katchi abadis in the country. The cost of leased plots and charges for development would be collected from beneficiaries to ensure that the applied strategy is based on a self-help principle.

9.119 Financial assistance (if required) should be provided in instalments which are released periodically following site inspection to confirm continued progress in the projects for which loans have been sanctioned. It must also be ensured that the future provision of housing and service facilities rests on the degree of co-operation of the clients in the repayment of resources expended on their behalf and with the collaboration of their local leaders. Considerable attention should be given to keep such expenditures relatively low per household- they should be easily affordable by most households. At every stage of the procedure, efforts must be made to maintain 'mini-maxi' strategy i.e with minimum expenditures to maximise the individual control over housing and services consumption.

Where, when and how would policies be implemented?

9.120 As mentioned earlier the Sindh Katchi Abadis Authority and its Directorate for Karachi Katchi Abadis have conducted socio-economic surveys in 288 katchi abadis including the case Study Areas, so the information about the physical, social and economic problems of these katchi abadis is ready for utilisation by these organisations. In view of the

objectives and suggested methods of implementation, the Sindh Katchi Abadis Authority could apply the available information for the implementation of policy for improvement in existing katchi abadis in 1992.

9.121 To achieve the objectives of Policy 2 i.e Development of New Settlements, would require detailed information about the number of households who would move into New Settlements from all the regularised katchi abadis in the metropolitan area. Hence after the required information is collected and number of households is calculated, proposals for development of the New Settlements could be included in the Ninth National Five Year Plan (1998-2003), for the approval of the plans for New Settlements, allocation and disbursement of funds for their implementation. The proposal can be included also in Annual Development Plans for incremental implementation. This process would take a long time; meanwhile Policy 1 would be put into practice. It is assumed here that the execution of Policy 1 would help in overcoming the problems of katchi abadis in the country, and particularly in the Karachi metropolitan area if this were properly executed during a period of six years (1992-1997). For achievement of the objectives of proposed Policies, the Sindh Katchi Abadis Authority would have to act as coordinator, communicator and co-operator. The Authority would have to consider and utilise resources and capabilities of the beneficiaries in the whole process of planning and implementation.

Strategy 2. To Improve Existing Management System in Order to Implement Effectively the Preferred Policies for Katchi Abadis in the Metropolitan Areas.

9.122 As discussed earlier, in light of the policies mentioned in the fifth National Plan (1978-83), and policy statements issued firstly, by the President and later, by the Prime Minister of Pakistan, Katchi Abadis Authorities were established in each Province (refer to Ch. 3, 4 and 8). The Sindh Katchi Abadis Authority was established in 1986 to tackle the problems of katchi abadis in Sindh Province. This Authority established Directorates and Implementation Committees at Metropolitan and District levels in order to implement the national policy for regularisation and improvement of katchi abadis in Karachi and other cities of the Sindh province. These Authorities however, being recently set up, face some difficulties due to:

i) Unorganised Structure: Planning is a multi-disciplinary activity, and needs more participants to make the process successful. But the engagement of unnecessary and irrelevant people causes difficulties in making correct decisions, and this is happening within the Sindh Katchi Abadis Authority. The organisational composition of the Governing Body of the Sindh Katchi Abadis Authority, Coordination Committee of Karachi Katchi Abadis, and Implementation Committee involves people from different administrative departments and politician. (refer to Figures. 5.3, 5.4 & 5.7).

ii) Unequal Distribution of Power. The bureaucrats such as Director General of the Sindh Katchi Abadis Authority, Director for Directorate of Katchi Abadis in Karachi have very limited powers in the whole process; especially in the implementation process at District level, where the Member of Provincial Assembly and the Deputy Commissioner have more powers than these bureaucrats. There is a combination of power. This combination consists of three kinds of power-political; judicial and bureaucratic. Political power remains with the Chairman of the Governing Body (Minister for Sindh Katchi Abadis), members of the Provincial Assembly and Mayor of the Metropolitan Corporation; Judicial power consists of the Commissioners and Deputy Commissioners (Administrators for Divisions and Districts); and the remaining bureaucratic power is with the Bureacrats.

iii) Lack of Knowledge and Experience: The politicians are members of the Provincial Assembly elected by a large number of people from within a big constituency. The chairman is assigned the Ministry by the head of the Provincial Political Ruling Party and the other members of the Assembly from different areas are nominated to the organisations by the Chief Minister of the Province. The politicians are elected with the help of a few close friends in their constituencies. Within these supporters, very few are loyal to the members of Assembly. The elected member himself or herself never visits all the voters but his / her friends and supporters help him / her during the election campaign. Hence he / she knows very little about the real needs and

problems of the poor people. After winning the election, he/she acquires the post of Minister or works as a simple member of the Assembly. In both cases within his / her powers, he / she can neither fulfil the needs nor solve the problems of all voters. He / she favours only those who spent their energy and money for his / her success in the election. On the other hand, the Divisional and District administrators are responsible for the administration (law and order) of the whole Division and District. They have also to make judicial decisions. Being the citizens they may observe the problems of the poor from lifestyle that the urban poor have adopted but due to broad activities and administrative responsibilities they spare very little time to visit the affected areas. Hence in real terms they know little about the difficulties of the poor people. Neither the politicians nor the administrators have any education or experience in the field of town planning.

iv) Lack of Powers and Formal Relationship. The existing system confirms a lack of power with the Sindh Katchi Abadis Authority to approve, sanction and implement the development plans in the metropolitan area. Like other departments the Authority has to submit all the plans and proposals received from the Directorates to the Provincial Development Working Party. After necessary assessment, the PDWP submits all plans for the province to Central Development Working Party through the Planning Commission. The CDWP considers all the plans received from the four provinces of the Country and approve some of them. Due to absence of a formal

relationship between the Sindh Katchi Abadis Authority and CDWP, some of important projects are dropped from the list of projects submitted by the Sindh Katchi Abadis Authority. Due to the lengthy process of approval, sanction and disbursement of limited funds (refer to para 5.037), the Sindh Kathi Abadis Authority has difficulties in the execution of plans for the development of various katchi abadis in the metropolitan area.

9.123 As learned earlier in this study, the Sindh Katchi Abadis Authority and the Directorate of Karachi Katchi Abadis has sound objectives and functions well (refer to Ch.5). The Sindh Katchi Abadis Authority and the Directorate of Karachi Katchi Abadis are trying their best to put these functions into practice in collaboration with the Provincial Planning Department and other organisations responsible for infrastructure to solve the problems of the urban poor in the Province of Sindh and Metropolitan Karachi (refer to Figure 5.10 and Ch.8).

9.124 The analysis of functions and relationships of the Sindh Katchi Abadis Authority and Directorate of Karachi Katchi Abadis shows the lack of power with these authorities, their dependency on Provincial development Working party and other organisations, absence of a formal relationship between these and the Central Working Party (a key authority in approval of the plans and sanction of funds for execution of these plans), with non-involvement of academics, technocrats and beneficiaries in the process of decision-making and execution of the plans. The study of

two selected katchi abadis also confirmed a lack of regular contact between the authorities concerned and the local residents. The Sindh Katchi Abadis Authority however, due to the facts mentioned above faces difficulty in addressing the nature of the problem of katchi abadis at national level and has constraints in the process of management {refer to paras 5.047 and 9.042 (11 and 12)}.

9.125 In order to remove the constraints on management, and to address katchi abadis as the prime problem at national level, the author suggests that,

1) The Provincial Katchi Abadis Authorities should be given more powers at provincial level, and also opportunities to be represented at national level.

2) In view of the proposals submitted by the provincial Katchi Abadis Authorities the decision makers should take the problems of katchi abadis into account at national level.

9.126 To achieve the objectives mentioned above the author considers that the structure of the existing organisations- Governing Body of the Sindh Katchi Abadis Authority, Coordination Committee of the Directorate for Karachi Katchi Abadis and its Implementation Committee at District level should be reorganised and their scope, functions and powers should be enhanced to implement the policies for development of New Settlements and improvement in existing katchi abadis. For speedy collection of the information in katchi abadis, the author propose development of the Area Implementation committee.

9.127 The proposed structure of organisations and their relationship differs mainly in four aspects from existing organisations as follows:

1) Representation of Provincial Katchi Abadis Authority at federal level to have a formal relationship between the CDWP and Governing Body of Katchi Abadis Authority. This would help to avoid a lengthy process of assessment and the dropping of important projects from the list, and to receive adequate funds for speedy implementation of approved plans to overcome the increasing metropolitan problem of katchi abadis.

2) Exclusion of judicial power from the planning and execution process based on arguments of 'knowledge and experience' and 'distribution of powers'. For adequate utilisation of judicial power, the author suggests the establishment of a tribunal. This tribunal should have authority for decision-making, about complaints made by the Katchi Abadis Improvement Authority against illegal planning actions taken by the public. The tribunal should also arrange public hearings to protect against victimization.

3) Inclusion of the staff from academic institutions, to the process in order to;

- 1) utilize the knowledge and expertise of the professionals;
- 2) receive help from the staff of institutions so as to accelerate the process;

3) know about the problem in depth through the scholars;

4) in the light of information provided by the scholars and professionals, to address the katchi abadis as a problem on a national scale.

5) gain access to modern technical equipment provided in the institutions for the purpose of data analysis to get quick results.

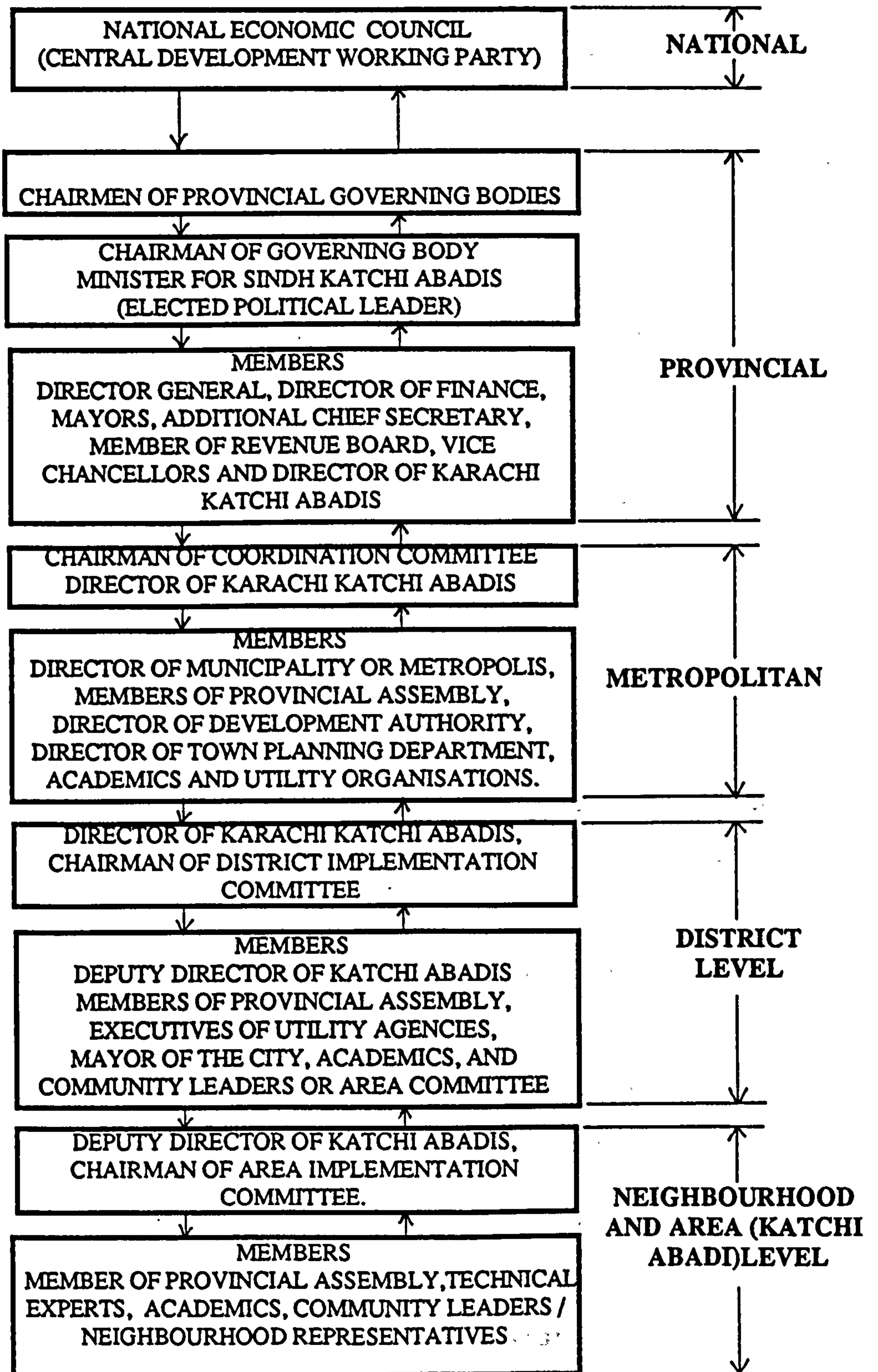
6) to receive help from the students in the process, and to provide opportunities to students to learn the process of data collection and analysis.

4. Creation of Area Implementation Committee for speedy collection of more accurate information about the problems and real needs of katchi abadi dwellers in order to prepare plans for development or improvement in katchi abadis. These Committees would help in implementation of approved plans and would also help in the process of cost-recovery at area rather than district level.

Proposed Structure and Relationship Between Existing Authorities and Area Implementation Committees.

9.128 Figure 9.3 shows that in view of the Items 1 to 4 mentioned above, the Katchi Abadis Authority would have a direct relationship with National Economic Council (CDWP). The Ministers for the Katchi Abadis in each province of the country, for example Sindh, would represent the Province at the national level. The Chairman Governing Body would submit

Figure 9.3 PROPOSED MANAGEMENT SYSTEM FOR IMPLEMENTATION OF POLICIES FOR UPGRADING KATCHI ABADIS IN THE METROPOLITAN AREAS OF PAKISTAN



plans, discuss these plans with the CDWP to obtain the final approval of the plans and likewise funds for the execution of these within their own provinces.

9.129 The Minister for Sindh Katchi Abadis would act as Chairmen of the Governing Body of the Sindh Katchi Abadis Authority. In addition to the Chairman, the Governing Body would consist of the Director General and Director of Finance of Sindh Katchi Abadis Authority, Additional Chief Secretary of the Town Planning Department of Sindh Government, a member of the Board of Revenue, Mayors of Metropolitan and Municipal Corporations, Vice Chancellors of Universities in the Sindh Province, and Directors of the Directorates for Katchi Abadis, in Karachi, Hyderabad and Sukkur.

9.130 The Director of Karachi Katchi Abadis Directorate would be Chairman of the Coordination Committee for Karachi Katchi Abadis. The Coordination Committee would consist of the Directors of Metropolitan and Municipal Corporations, Director of the Karachi Development Authority, Director of the Town Planning Department, Head of Teaching Department or his representative, Heads of Utility Organisations such as KWSB, KESC, KGC and SRTC, Elected Political Member and Heads of Area Implementation Committees. (See Fig 9.3)

9.131 The Director of Karachi Katchi Abadis Directorate would also be Chairman of the District Implementation Committee. This Committee would consist of the Deputy Director Karachi Katchi Abadis, Deputy Director Metropolitan

Corporation, Elected Political Member, Executives of Utility Organisations, Representative of Teaching Department, and Community Committees at area level. (See Figure 9.3)

9.132 To help the Director of Karachi Katchi Abadis Directorate in the process of collection and analysis of data, and implementation of the approved plans in the individual katchi abadis, the Deputy Director of the Directorate will be Chairman of Area Implementation Committee. In addition to Chairman, this committee would consist of elected Member of Provincial Assembly whose constituency that particular katchi abadi will belong to, staff of the Karachi Katchi Abadis Directorate (survey and planning unit), Representative of University and Community Committee (formed by neighbourhood representatives) in a particular katchi abadi. The function of Area Implementation Committee will be limited to individual katchi abadis.

9.133 As the politicians always play an important role in the development of katchi abadis, therefore he / she will contact the leaders of local welfare organisations to acquire help in conducting surveys. He would also pursue the authorities to solve the problems of that katchi abadi. During field work it was alleged that the elected politicians had no interest in the development of Lyari. Hence the author suggests, politicians would have to take initiative and get the leaders of the existing welfare organisations in their confidence. The representative of the university would help in the process of conducting surveys with the help of a team of university students in katchi

abadi when requested by the Chairman of Area Implementation Committee; whereas other participants would play a dual role as information collectors and plan executors. (For details refer to para 9.017)

9.134 The Sindh Katchi Abadis Authority would have two main sections:

1) Administration. This section would be responsible for all financial matters- sanctioning of funds from the Federal and the Provincial Governments, allocation of these funds to entitled (approved) projects through the proper channels at the appropriate time to complete the projects, and granting of loans and subsidies at negotiated rates to eligible applicants to improve their living and working standards.

2) Investigation and execution of policies. This section would be concerned with research designed to investigate the needs of people within a particular area with which they are concerned. It would also be responsible for the preparation and implementation of the plans for the development of these affected areas. This section would contact with the heads of community committees and residents to collect accurate information about the real needs of residents and to arrange execution of approved plans in their areas. This section would also utilise the efforts of the elected political leaders and of neighbourhood committees through heads of community committee in recovery of the charges for the development from the beneficiaries in katchi abadis and in the New Settlements.

Objectives of the Authority.

9.135 In view of the national policies for amelioration of the problems of katchi abadis, the improvement authority would have the following objectives in addition to its present ones:

1. To prepare plans for development of new settlements and improvement of existing katchi abadis.
2. To acquire land required from agencies concerned.
3. To develop plots for proposed Settlement.
4. To issue lease of plots to the people to be moved from regularised katchi abadis as early as possible.
5. To encourage the private sector to establish industry and commercial facilities in both New Settlements and regularised katchi abadis in the metropolitan area.
6. To provide infrastructural facilities in New Settlements.
7. To improve basic services and infrastructural facilities in existing katchi abadis.
7. To arrange sufficient funds and proper use of these for the execution of the plans.

Role of Proposed Authority.

9.136 The authority's primary task will be to lead and advise its sub-authorities and the poor people through the process of regularisation and improvement of existing katchi abadis, development of new settlements, construction of new houses with regard to:

a) Legalisation of existing katchi abadis, arrangements for issuing lease of plots occupied by households, provision and improvement of basic infrastructural facilities in existing katchi abadis (policy 1).

b) Registration of applicants from legalised katchi abadis in the metropolitan area, allotment of developed plots and issuing lease of plots to applicants in New Settlements.

c) Land use planning- the amount of land which will be required for the development of new settlements, the methods of acquisition and use of acquired land i.e zoning of land to be used for housing, industrial / commercial and other service facilities. (policy 2)

d) Building codes and servicing standards- in view of the socio-economic conditions of slum dwellers, the authority will formulate the necessary regulations and provide information to the occupiers with regard to size of plots; layout; open space and its use and servicing standards. The Authority can obtain help from the Building Authority, for example in Karachi, it is presently working with Karachi Development Authority. (Policy 1 and 2)

e) Financial aid- the administration of allocated funds for development projects, loan facilities including award and receipt from authorised financial institutions, defining terms and conditions for repayment of loans and charges for development, and the use of cross-subsidies and other sources to help the community, particularly low-income households. (Policy 1, and 2)

f) Technical assistance- the Authority itself will become involved in neither the process of construction of houses nor the extension of existing houses. But in addition to a-mentioned above, its role will be limited to the technical aspects of planning activity within these areas. The authority will arrange for the supply of low-cost materials on sites and advise skilled labour, builders and contractors (if they are involved in project). In the New Settlements the authority will supervise the development process.

Strategies and activities to achieve the objectives.

9.137 The proposed Authority will perform the following activities in order to achieve the objectives.

1. The authority would have managerial control of change in both political and technical realms.
2. The authority should play a more important, responsible and positive part in the process of planning and in implementation that is to bring the reality of the government's plans nearer to the people in affected areas.
3. The authority should bring beneficieries (heads of local welfare organisations) into the decision-making process as much as possible, and enable those decisions to be made readily intelligible to the slum dwellers.
4. In expansion of present function 3, the authority should conduct surveys with the help of community committees in order to identify and as far as possible measure and analyse

existing needs and new problems within the community served by the Authority. For implementation of policies, it would be necessary to collect as much relevant information as possible, i.e to go into the problems in depth, collecting facts on the basis of which the actual policies could be properly implemented.

5. The authority should specify the desired needs for the provision of service facilities to meet those needs and to quantify them.

6. It should examine the interrelationship and interactions between the different departments within the Authority.

7. The authority should produce short-term and long-term action programmes to achieve the stated objectives.

8. The authority should be responsible for the implementation of these action programmes with the help of community committee through the neighbourhood committees at the area level.

9. The authority should deliver improved services in order to make them more responsive to local needs.

10. The process of identification and analysis of local problems, needs and opportunities should be accelerated.

11. The authority should provide a local view about the relevance and effectiveness of current spending patterns and proposals for changing these.

12. The authority should provide a local view about the relative priority of competing bids for resources.

13. The authority should review the relevance and effectiveness of existing policies for services and propose changes where and when necessary.

14. The authority should adopt a strategy that gives local residents more direct influence over the activities of the elected members in their areas.

15. The authority should administer funds allocated for the benefit of the legalised slums in the metropolitan area.

16. The authority should carry out a systematic and continuous evaluation of the programmes for development (completed projects) in the light of progress made and of changed circumstances.

17. The authority with help of 'Sequence of Policy Analysis' (refer to Figure 9.2) should assess real achievement in relation to the objectives and strategies of policies.

9.138 Strategies 16 and 17 are very important as Chelmsky (1978) says " Evaluations may be undertaken for a variety of reasons. They may be undertaken for planning and policy purposes, to test innovative ideas on how to deal with human and community problems, to decide whether to expand or curtail programmes, and to support advocacy of one programme as opposed to other."

Publicity and Participation.

9.138 In order to enhance the planning process and execution of the plans for development of new settlements and upgrading environments in existing katchi abadis, the public participation is an essential element. Public participation in the planning and execution process is a way of keeping people informed about the benefits of plans for their betterment. The participation could be extended from group members and organisations to a much larger proportion of people, getting people more involved because sometimes group members or office bearers of welfare organisations could not represent the population at large.

9.139 There are differences between katchi abadis in the nature of the population, their attachment to the particular area, their perception of the level of service provision and their role in the development of these aspects of community life within the metropolitan area. (Refer to Case Studies in Chs. 6 & 7) The Authority should appreciate the distinctive characters of different slums within its geographical area. Having done so, the Authority might use some form of survey to explore these differences in greater depth.

9.140 In this way there is a greater chance that opportunities for participation would be tailored to serve the needs and interests of particular sectors of the whole community. This participation can perform unique and valuable functions. It would help the Authority in gathering accurate knowledge about local people of which the authority

might be unaware and on which it might base better decisions. According to Stringer (1978) "people have a right to be involved in decisions which affect their future." Hence participation should be a multi-model exercise, it should invite academic institutions, professionals, bureaucrats, political leaders (elected members and councillors), representatives of community committees, residents of katchi abadis and mass media to take part in the whole process of publicity and participation.

9.141 While a great deal might be achieved by a single authority, it is important to pursue publicity and participation through different means in the preparation and execution of plans in order to accelerate progress and relieve the concerned Authority of some of the onerous tasks in their execution. One of the means of publicity is by writing letters to,

a) staff of academic institutions, b) members / councillors of the particular area and neighbouring areas and c) office bearers of community committees, to invite their views about changes to be carried out in the particular katchi abadi in the metropolitan area.

A second means could be posters displayed locally in streets and public places- libraries, bus stops, cinemas, hotels and local shops.

A third method of publicity could be small leaflets containing brief information about plans in national, provincial and other local languages so that the majority of

the population can get benefit. These should be distributed among the residents of area to be improved by the Authority.

A fourth and very important method of publicity is that detailed information about projects should be available for people within the concerned Authority. The Authority should not hide facts from the people for whom the plans are being prepared and executed. (refer to page 480-82 and Figure 9.3)

A fifth source of publicity which requires a realistic interaction between the concerned Authority and journalists are the newspapers. The authority shall have to develop social contacts with local newspaper agencies for advertisement of plans. The best advertisement should exhibit simplicity, colouring, politeness and a request to local community to send their comments or attend discussions about the plans.

A last means of publicity would be considerable use of Radio and Television by local broadcasting stations through local languages in order to keep the illiterate proportion of the poor people informed about changes to be carried out in their areas.

9.142 The academic institutions should be assigned projects to carry out socio-economic surveys with the help of students within the katchi abadis in metropolitan area. Leaders of Neighbourhood Committee and local residents should be requested to help in conducting surveys. Existing facilities for analyses of socio-economic surveys in the

Applied Economic Research Centre should be expanded and utilised more widely.

9.143 The Authority should arrange meetings with elected members of the Provincial Assembly for the particular area and neighbouring areas to discuss various aspects of the proposed plans before recommending these plans for final approval. The Authority should call upon the councillors from both i) area to be considered in plans and ii) neighbouring areas and heads of community committee to discuss issues and impacts of proposed plans. The Authority should call public meetings to hear the people's problems, views and suggestions about proposed plans.

9.144 The meetings with audiences should be arranged collectively or individually according to feasibility and at the convenience of the authority. Meetings should be presided over by the head of the authority or his nominee who has comprehensive information about development projects. The head or his / her nominee should talk on various aspects of the proposed plans with the aid of slide illustrations, overhead projections, maps, figures and tables showing statistics relevant to the areas to be served by the authority.

9.145 Public meetings are democratic institutions and could be successfully managed by adopting the following appropriate techniques. The audience might be encouraged to interrupt the speaker during his talks rather than wait for a question-and-answer session. The audience should be

allowed to form small groups at some stage for discussion purposes. Comments and views of participants should be recorded in the form of written representations. Whatever use is made of recorded comments, it should in turn be communicated at least to those participants who made them. In this way the participants would be encouraged, and the authority would receive a more positive response in the future.

9.146 Very often the surveys are thought of as part of the public participation process. They have variously been applied to collect information about the attachment of residents to their area, social structure of community, their perception of a number of physical and other services, their needs and priorities; to obtain evaluation of development projects and to judge the effectiveness of the participation exercise itself. The survey is seen as one of the few ways of reaching the typical 'man in the street' and the methods of selecting samples are intended to secure that the chosen population will accurately reflect the wider population.

9.147 The press has sometimes drawn attention to injustice, maladministration and wrong decisions on the part of local authorities. Local authorities consider the press as a dangerous medium for publicity and participation because the press frequently antagonises the local authorities-- it is a relationship which is too often characterised by mistrust and a lack of understanding and respect for each other. Relationships need to be established gradually, over a

period of time and between individuals, if bureaucrats and journalists are to try realistically to understand, respect and help one another. Use of the press will usually be inexpensive and more beneficial to an authority if the officers spend some time in establishing and maintaining a good working relationship with journalists.

9.148 The value of personal (social) contacts between planning officer, editor and reporter of a newspaper cannot be overemphasised. Personal contacts (friendly environment) may well be more satisfactory than employing power relationships to achieve very similar goals in the process of publicity and participation.

Summary And Conclusion.

9.149 In the beginning of this chapter, the problem of human settlement that most developing countries are faced with particularly in their primate cities were represented. The study also summarised the reasons for and methods by which the low-income housing areas- a distinct form of settlement are developed, and transformed into slums. A comparative study of the process, causes and impact of slums on the development in the metropolitan areas of the Third World and Pakistan confirmed the distinctive features of katchi abadis (slums) in Pakistan. The katchi abadis in Pakistan being developed by different process in response to political and local conditions, accommodate people of different classes and of various ethnic groups. There are two types of katchi abadis- old and younger in Pakistan. The study has confirmed

existence of an imbalanced social and economic structure within these katchi abadis which require effective measures to remedy imbalanced social structure.

9.150 Modified policy proposals and improved methods for management also were prescribed in order to achieve the principal objective of this study i.e to overcome the problem of katchi abadis in metropolitan areas of Pakistan, Karachi and particularly in the two case study areas. Past and present policies adopted and implemented by three developing countries in the large cities particularly in Delhi, Cairo and Karachi metropolitan areas were evaluated in terms of their success and failure. Constraints to the implemented policies and their impact on development in the metropolitan areas of three developing countries India, Egypt and Pakistan in particular were evaluated with help of 'Sequence of Policy Analysis'.

9.151 With the help of evaluation of a) policies and implementation b) achievements made c) constraints to the implementation of the policies and d) analysis and comparison of empirical work the author reached at sound findings of the study. The study has confirmed non-existence of appropriate policies and adequate management for solving the slum problem in the primate cities of these countries particularly in Karachi.

9.152 To resolve these key problems, identified in the earlier sections, the author proposed strategies of two types based on 1) modified policy options and 2) improved

management system to implement these policies. Through a critical analysis of proposed policy options based on the cost-and-benefits concept the author has selected policy for upgrading physical environment in the metroplitan Karachi particularly in two case study katchi abadis. The author has evaluated selected policy option in terms of quality level of services, cost and affordability by the beneficiaries. The author has also considered policy for development of new settlements as an additional option to policy for upgrading. Each of these policies is self-explanatory in terms of objectives and guidelines. For proper execution of proposed modified policies the author has suggested some changes to the existing management system.

9.153 The objectives, activities, role of the Executive Authority and the strategies for action are described in some detail to ensure that policy makers and implementation staff understand them clearly. Participation by the academic institutions, local leaders and of the slum dwellers in the patterns of human settlement i.e improvement and development and the process of execution of policies, is considered as an appropriate way of keeping the public informed, and encouraging them to utilize their own efforts and resources to build their own future and that of future generations.

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KARACHI, MONDAY, JULY 10, 1978

PART I

HEADQUARTERS MARTIAL LAW ADMINISTRATOR ZONE 'C'

MARTIAL LAW ORDER No. 67

KATCHI ABADIS

WHEREAS it is expedient to regularize and develop Katchi Abadis in the Province of Sind to provide basic essential facilities;

NOW, THEREFORE, in pursuance of Martial Law Order No. 3 issued by the Chief Martial Law Administrator, I, Lieutenant General Mohammad Iqbal Khan, Martial Law Administrator Zone 'C' hereby promulgate the following Martial Law Order:—

1. This Martial Law Order shall be called "Regularisation and Development of Katchi Abadis" and come into force at once and shall have effect notwithstanding anything contained in any other law for the time being in force.

2. There shall be established a Directorate of Katchi Abadis under the Housing, Town Planning, Local Government and Rural Development Department, hereinafter referred to as the Directorate.

3. The Directorate shall—

- a. collect data and consolidate statistics in connection with Katchi Abadis;
- b. monitor the progress of regularisation work of Katchi Abadis;
- c. arrange transfer of land on which any Katchi Abadi is located to the respective local bodies;
- d. plan and execute the schemes for rehabilitation of families displaced from such areas which are not regularisable;
- e. co-ordinate and supervise the physical work of survey and regularisation by Municipal Local Bodies and other agencies;
- f. hear and as far as possible redress genuine grievances arising under these Order.

4. a. The Directorate will be headed by a Director appointed by the Government with such complimentary staff as may be sanctioned by the Government.

b. The existing Directorate of the Town Planning will be merged with the Directorate.

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c. The Directorate shall be located in the premises of the Master Plan of the Karachi Development Authority.

5. The Karachi Development Authority, Karachi Metropolitan Corporation and Town Planning Unit of Hyderabad Development Authority at Hyderabad and all other agencies concerned shall assist the Directorate in the discharge of its functions and shall from time to time report to it the progress of the work relating to regularisation of Katchi Abadis.

6. The Master Plan Department of the Karachi Development Authority and the Central Planning Team of Karachi Metropolitan Corporation will be available for planning and advice to the Directorate especially with regard to basic planning concepts guidelines for regularisation.

7. The regularization and development of Katchi Abadis will be undertaken in three phases as under:—

Phase 1.

Collection of data. To be completed as soon as possible for which a schedule of work will be fixed by the Government.

Phase 2.

Regularization and development of Katchi Abadis on Government or Local Council's lands.

Phase 3.

Regularization of Katchi Abadis on private land or if that is not possible, providing alternate sites for residents of such Abadis and undertaking development thereof.

8. The development and regularization of Abadis shall include the following:—

- a. Realignment of roads, layout, other facilities like schools etc. and readjustment after necessary survey.
- b. Giving of long term (99 years) lease rights to individuals with the clause of another lease for 99 years at leasee's request. Such leases shall be non transferable except by inheritance. Lease price shall be determined by the Government at the rates which shall not be less than the existing Government rates.
- c. Provision of following facilities:
 - (1) Roads.
 - (2) Water.
 - (3) Sewerage.
 - (4) Electricity.
 - (5) Gas.
- d. Acquiring land or shifting Abadis to suitable areas where considered necessary.

9. The cost of development of Abadis so regularized shall be recovered from the beneficiaries. Till the development is done the individuals shall not pay any house tax or other such charges since development cost will be shared by the occupants on a basis to be worked by the Government.

MARTIAL LAW ORDER 110

KATCHI ABADIES

WHEREAS it is expedient to regularise and develop Katchi Abadies in the Province of Sind to provide basic essential facilities.

NOW, THEREFORE, in exercise of the powers conferred by Martial Law Order No. 3 issued by the Chief Martial Law Administrator, I, Lieutenant General S. M, Abbasi, Martial Law Administrator Zone 'C', hereby reconstitute Martial Law Order No. 67 as follows which shall be deemed to have always been so reconstituted.

1. This Martial Law Order shall be called the Regularisation and Development of Katchi Abadies Order, and come into force at once and shall have effect notwithstanding anything contained in any other law for the time being in force.

2. Government may, by notification in official Gazette, declare that any part of any Urban area owned by the provincial Government or a Local Authority, which has been partially or totally occupied unauthorisedly since before 1st January, 1978 for residential purposes and continues to be so occupied shall, for the purpose of this Order, be known as Katchi Abadi.

3. The Council constituted under the Sind Local Government Ordinance, 1979 shall be responsible for regularisation of the Katchi Abadies through the Directorate of Katchi Abadies established in accordance with this Order.

4. There shall be a Katchi Abadi Cell in the Housing, Town Planning, Local Government and Rural Development Department, headed by an Additional Secretary, which shall coordinate the work of regularisation of Katchi Abadies and shall lay down the Policy guide lines.

5. (1) There shall be a Directorate of Katchi Abadies in the Karachi Metropolitan Corporation, Hyderabad Municipal Corporation and Sukkur Municipal Committee and for the purpose :-

(i) The Department of the Karachi Metropolitan Corporation dealing with the Katchi Abadies shall form and be known as

the Directorate of Katchi Abadies and Evaluation, Karachi Metropolitan Corporation for Karachi Division.

- (ii) Similar Directorates shall be set up in Municipal Corporation Hyderabad for Hyderabad Division and in Sukkur Municipal Committee, Sukkur for Sukkur Division.
- (iii) The vacant posts in the Directorate of Town Planning, Hyderabad and Sukkur shall respectively stand transferred to the Municipal Corporation of Hyderabad and Municipal Committee Sukkur.

(2) The Directorates of Katchi Abadies shall be manned by such employees of the respective Council and other employees as may be determined by Government on the recommendations of the Commissioner, of the Division.

6. Commissioners shall, subject to the orders of the Katchi Abadi Cell in the Housing Town Planning Local Government and Rural Development Department exercise over all control and supervision of the regularisation and Development work of Katchi Abadies within their respective Divisions.

7. For the purpose of this Order the land owned by the Provincial Government or Local Authority shall stand transferred to the respective Directorates of Katchi Abadies,

8. The Directorates of Katchi Abadies, shall prepare an improvement policy for the Katchi Abadies according to which the work of regularisation and improvement of Katchi Abadies will be carried out in the following order of preference :—

- (i) Inventorisation.
- (ii) Reconnaissance survey in Katchi Abadi, to identify regularisable and non-regularisable portion thereof on the basis of selection criteria approved by the local authority concerned with the approval of the Commissioner.
- (iii) Regularisation shall be in two phases, namely:--
 - Phase 1* Regularisation and development of the regularisable part of the Katchi Abadies.
 - Phase 2* Providing alternate site for residence of the non-regularisable part of the Katchi Abadies and undertaking development thereof.

(iv) Improvement and provision of infra-structure facilities.

(v) No Katchi Abadi, or a portion thereof situated on land which is not safe from flood hazard or is required or reserved for roads, hospitals; schools, colleges, libraries, playground, garden, park, community centre, mosques, graveyard, railway, high tension lines or such other purposes and is otherwise in conflict with the planned land use of approved schemes shall be regularisable.

9. The Development of any Katchi Abadi, shall be undertaken by Government, and any person who, as a consequence of such development is deprived of the accommodation in his possession shall be allotted an alternate site.

10. (1) The Directorate of Katchi Abadies shall give long term (99 years or as approved by the Government), lease rights to each individual after the verification of the existence of the Katchi Abadi, prior to 1st January, 1978.

(2) The lease shall be subject payment of lease money at the rate fixed by the Commissioner, which shall in no case be less than Rs. 15 per sq. yd.

(3) 10% of the lease money inclusive of development charge shall be paid as the price of land payable to the Provincial Government or Local Authority, as the case may be, and such price shall be treated as a contribution from the owner of the land towards the development of the Katchi Abadi in the form of a soft term loan to the Directorate of Katchi Abadies on the terms and conditions approved by the Government.

(4) A lease granted under this paragraph shall not be transferable for a period of five years from the date of execution of the lease except by inheritance or mortgage to the House Building Corporation or a Scheduled Bank for receiving house building loans approved by the Government.

11. Notwithstanding anything to the contrary contained in the Registration Act, 1908, the Commissioner, may declare any Katchi Abadi, to be a sub-district for the purpose of that Act, and Government shall post a Sub-Registrar, for such Katchi Abadi.

12. There shall be a revolving fund consisting of the cost of Development and price of the land recovered from the beneficiaries and any grant made by the Federal Government, Provincial Government, or the Local Authority. The fund shall be utilized for payment of the land and development charges thereof.

13. A Katchi Abadi, coming into existence after first day of January, 1978, shall be treated as an encroachment and be dealt with in accordance with the law dealing with the encroachment for the time being in force.

KARACHI ;
Dated 8th December, 1979

Sd/-
Lieutenant General,
Martial Law Administrator Zone 'C'
(S. M. Abbasi)

MARTIAL LAW ORDER No. 130

REMOVAL OF ENCROACHMENTS

WHEREAS it is expedient in the public interest to provide for measures for prevention and removal of encroachments in the Province of Sind.

NOW, THEREFORE, in exercise of the powers conferred by MLO-3, issued by Chief Martial Law Administrator, I, Lieutenant General S.M. Abbassi Martial Law Administrator Zone 'C', hereby make and promulgate the following Martial Law Order :—

1. (a) This Order may be called the Removal of Encroachment Order, 1980.
(b) It shall come into force at once.
2. In this Order, unless there is anything repugnant in the subject or context—
 - (a) "Encroachment" means unlawful trespass upon or unauthorised use or occupation of, or undue interference with, public property;
 - (b) "Public Property" means an immovable property such as land, building, place or premises, or rights privileges accruing from such property, vesting in, or under the management or control of.—
 - (i) The Federal or Provincial Government ;
 - (ii) An Autonomus Corporation, Authority or Board established by the Federal or Provincial Government under any law for the time being in force;
 - (iii) A Local Council constituted under the Sind Local Government Ordinance, 1979; or
 - (iv) Any Housing Society or such other public or Cooperative body registered under any law for the time being in force.
3. This Order shall have effect notwithstanding anything contained in any law, rule, agreement or contract for the time being in force.

4. Governments or any authority or an officer authorised by the Government or the authority in this behalf, may, by, an order, require the person directly or indirectly responsible for encroachment to remove such encroachment together with structures, if any, raised by him on the public property, within such period as may be specified in the Order.

5. If any person refuses or fails to vacate the public property or remove the encroachment of the structure raised on the said property within the specified period, he shall be ejected by such force as may be necessary by the officer authorised under paragraph 4 and the cost incurred on removal of the structure, if any, shall be recovered from him.

6. Any person who contravenes or attempts to contravene or abets the contravention of this Order or any order made thereunder shall be punished under MRL-14.

7. Government may, by notification, appoint committees to oversee the implementation of this Order and such committees may, if necessary, revise, modify or cancel any order made under the Martial Law Order.

KARACHI
Dated : 08 July, 1980

Sd/-
Lieutenant General
Martial Law Administrator Zone 'C'
(S. M. ABBASI)

MARTIAL LAW ORDER No. 183

WHEREAS it is expedient to regularise and develop Katchi Abadies in the Province of Sind.

NOW, THEREFORE, in pursuance of Martial Law Order No. 3 issued by the Chief Martial Law Administrator, I, Lieutenant General S.M. Abbasi, Martial Law Administrator Zone 'C', hereby reconstitute Martial Law Order No. 110, as follows :-

1. (1) This order shall be called the Sind Katchi Abadies (Regularisation and Development) Order 1982.

(2) It shall come into force at once and shall have effect notwithstanding anything contained in any other law for the time being in force.

2. (1) In this Order, unless there is anything repugnant in the subject or context.

a) "Council" means the metropolitan corporation, a corporation, municipal committee or town committee constituted under the Sind Local Government Ordinance, 1979;

(b) "Directorate" means the Directorate of Katchi Abadies and Evaluation set up under paragraph 11;

- (c) "Fund" means the fund constituted under this order;
- (d) "Government" means the Government of Sind;
- (e) "Katchi Abadi" means a Katchi Abadi declared by the Government under paragraph 3;
- (f) "Prescribed" means prescribed by rules;
- (g) "Rules" means rules made under the Order;
- (h) "Scheme" means a scheme prepared under paragraph 6;

(2) Words not defined in this Order shall have the meanings assigned to them in the Sind Local Government Ordinance, 1979.

3. (1) A Council may, by resolution, apply to the Government for declaration of any area owned by it or a local authority or the Government which was partially or wholly occupied unauthorize for residential purposes, before the first day of January, 1978 and continues to be occupied to be a Katchi Abadi.

(3) The Government may, by notification in the official Gazette declare any area or part thereof which was partially or wholly occupied unauthorisedly for commercial or industrial purposes before the first day of January, 1978 and continues to be so occupied to be a Katchi Abadi.

(4) The Government may, by notification in the official Gazette, declare such area with the consent of the owner of an area to be a Katchi Abadi, and the Katchi Abadi so declared shall, subject to the conditions may be agreed to between such person and the Government, be regularised and developed in accordance with the provisions of this Order.

(5) Same as otherwise provided in this Order, the declaration of any area to be Katchi Abadi shall not confer any person in occupation in the Katchi Abadies.

4. (1) Except as otherwise directed by Government no area which is reserved for the purposes of roads, streets, water supply arrangements, sewerage or other conservancy arrangements, hospitals, schools, colleges, libraries, playgrounds, gardens, mosques graveyards, railways, high tension lines, or such other purposes, or is not safe from flood hazard, shall be declared to be a Katchi Abadi.

(2) Any area declared to be a Katchi Abadi

5. An area declared to be a Katchi Abadi shall, subject to any agreement referred to in sub-paragraph (4) of paragraph 3, vest in the Council concerned for the purpose of regularisation and development.

6. A Katchi Abadi shall be regularised and developed by the Council concerned in accordance with the provisions of this Order and the rules.

7. (1) Subject to the rules and the directions of the Government not inconsistent with the provisions of this Order, the Council concerned shall prepare a scheme for regularisation and development of the Katchi Abadies.

(2) The scheme shall inter alia provide for-

(a) The rehabilitation of the authorized occupants of a Katchi Abadi in the same Katchi Abadi or, where it is not possible in any other locality by allotting plots of prescribed size;

(b) allotment and leasing out of plots on such terms and conditions, including period of lease, as may be prescribed. Provided that no plot shall be leased out unless the terms and conditions of the allotment have been complied with by the allottee;

Provided further that a lease granted under this Order shall not be transferable

- (c) recovery of lease money and development charges as may be prescribed.

The Councils concerned shall set up a separate unit of administration with appropriate staff to be called the Bureau of Katchi Abadis, which shall perform such functions as may be assigned to it by the Council under this Order;

Provided that in Karachi, the Directorate shall perform the functions of the Bureau.

8. A percentage of the lease money, inclusive of the development charges, under this Order, as may be prescribed, shall be transferred to the Council, and the amount so transferred to the Council shall be deemed to be a soft term loan advanced by the Government or the local authority, as the case may be, on such terms and conditions as may be prescribed.

9. Notwithstanding anything contained in the Registration Act, 1908 (VI of 1908), Government, may, for registration of lease deeds and other documents under this Order; declare any Katchi Abadi to be a Sub-District for the purpose of that Act and appoint a Sub-Registrar for such Sub-District.

10. (1) In each Council there shall be a revolving fund consisting of -

- (a) the lease money and development charge under this Order;

(b)

- /
- (2) The Fund shall be utilized for regularization and development of Katchi Abadis or any matters incidental thereto.
 - (3) The Fund shall be maintained and operated in such manner as may be prescribed.
11. (1) There shall be a Directorate in each division consisting of such officers and staff as may be determined by Government from time to time.

Provided that the Directorate of Katchi Abadi and Evaluation in Karachi existing immediately before the coming into force of this Order, shall be deemed to be the Directorate and shall continue to function as an establishment of the Karachi Metropolitan Corporation.

- (2) Except in the Karachi Division, the Directorate shall be supervised by the Commissioner of the Division.
- (3) The Directorate shall, subject to the control of Government, co-ordinate the activity of regularisation and development of Katchi Abadis in the division and shall perform such other functions; and exercise such powers as may be prescribed.

12. The Councils and the Directorates shall submit to Govt. such periodical reports,

13. Notwithstanding anything contained in this Order, Govt: may establish a Re-Development Board for any Council consisting of a chairman and such members as it may appoint and the Board so constituted shall exercise such powers and perform such functions under this Order as may be assigned to it by Government.

14. No suit, prosecution or other legal proceeding shall lie against Government, the Directorate or any Council or any officer or person for anything which is in good faith done or purports to be done under this Order, or any rules made or directions given thereunder.

15. Government may make rules for carrying out the purposes of this Order.

16. If any difficulty arises in giving effect to any of the provisions of this Order, Government may make such order, not inconsistent with the Provisions of this Order, as may appear to it to be necessary for the purpose of removing the difficulty.

Sd/-

Lieutenant General

Martial Law Administrator Zone 'C'
(S.M. ALI/ASL)

Karachi:

Dated 4th September, 1987.

Appendix 2.

Departments Attached to Planning and Development Department of Sindh Province.

Scope and Operations of Departments.

Administrative Department.

This department deals with matters related to the administration of the Planning and Development Department and its Attached Agencies. Its specific concerns are:

- a) appointments of employees, confirmation of their services and promotion to higher grades in various sections of the Provincial Government Departments.
- b) grant of leave (all kinds).
- c) grant of advance increments according to experience and educational qualifications.
- d) determination of seniority.
- e) service rules and regulations.
- f) local training facilities.
- g) miscellaneous administrative matters.

Coordination Department.

This department of the Planning and Development Department Government of Sindh considers the directives from the President / Chief Martial Law Administrator and the Governor / Martial Law Administrator of Sindh and the petitions received through them, representations from the public regarding basic facilities in their areas and coordination work of the Departments including the Assembly business.

Physical Planning and Housing Department.

This department of Provincial Planning and Development Department deals with basic development of general housing, the Government Office Buildings, Government servants' housing, water supply and drainage schemes and provides financial aid to the Local Authorities to carry out the development projects within their constituency. The Provincial Departments and Agencies responsible for completion of the projects are as follows: Housing, Town Planning, and Rural Development Department, Communication and Works Department, Public Health Engineering Department, Services and General Administration Department, Home Department-Jails, Police and Civil Defence, Irrigation and Power Department, Law Department, Board of Revenue, Excise

and Taxation Department and Finance Division. This department deals also with the following agencies: Karachi Development Authority, Karachi Metropolitan Corporation, Karachi Water and Sewerage Board, Hyderabad Development Authority, Hyderabad Municipal Corporation, and Sukkur Municipal Corporation. The following sections work under Physical Planning and Housing Department.

General Section.

This Section looks after the following matters:

- a) all budget and accountancy matters.
- b) public accounts.
- c) store and local purchase.
- d) cleanliness of the premises.
- e) payment of telephone, electricity and gas bills.

Education Section.

The Section deals with the development schemes for Primary, Secondary, College, Teachers and Technical education. This section provides scholarships to poor and brilliant students in the educational institutions of Sindh Province. The following departments are attached to this section: Education Department, Social Welfare Department and Co-operation Department.

Health Section.

This section deals with the Provincial Health Department which deals with the rural health centres; medical education; communicable diseases control programme and the provision of hospital beds and their maintenance.

Industries Section.

The following sub-sectors come under the purview of this section: large industries; small industries; mineral development and printing. The related Provincial Departments and Agencies are: Sindh Small Industries Corporation; Industries and Mineral Development Department; Sindh Government Press; Directorate of Industries and Mineral Development; and Sindh Sugar Corporation Limited.

Finance Department.

This department comprises two components: International Aid and Technical Assistance, and Economic Policies and

Research. The first component of this department coordinates the functions of the Federal Economic Affairs Division and other Divisions within the Province and is directly responsible for negotiations, flow, control and supervision of foreign aid and technical assistance to the Provincial Departments and Attached Agencies. This Section comes in contact with the International Institutions and Agencies like the World Bank (IBRD), Asian Development Bank (ADB), Islamic Development Bank (IDB), United Nations International Children's Education Fund (UNICEF), United Nations Development Programme (UNDP), World Food Programme (WFP), International Labour Organisation (ILO), European Economic Community (EEC), International Fund for Agricultural Development (IFAD), Canadian International Development Agency (CIDA) and all other bilateral donor agencies.

The Department is involved in project identification, formulation, appraisal, negotiation, review and the implementation of all projects supported by foreign aid. This department is entrusted with the processing of projects and credit agreements between the Donors and the Provincial Government, and also with the policy issues concerned with the facilities for foreign training of the Provincial Government employees. In addition to the above, the department makes necessary arrangements for press coverage and for the protocol reception of various visiting delegations from abroad.

Second component, the Economic Policies and Research, coordinates and controls the technical functions of the Sindh Regional Plan Organisation (SRPO), the Bureau of Statistics (BOS), the Local Credit Budgets for the projects through the National Credit Consultative Council (NCCC), collection of economic data for the Accounts Division and the preparation of economic reviews.

Evaluation Section.

This section deals with the following subjects:

- a) examination and evaluation of development schemes.
- b) identifying bottlenecks in financial and physical progress of schemes included in the Annual Development Plan.
- c) reconciliation and reappropriation of funds earmarked for development schemes.
- d) monitoring of Plans for development projects.
- e) preparing annual documents on preview and review of Annual Development Plan.
- f) providing relevant material for the budget speeches of the Provincial and Federal Finance Ministries.

g) preparing working papers for the Provincial Cabinet on the review of ADP on a monthly or quarterly basis.

h) preparing papers for the review of ADP meetings.

Attached Agencies and Their Functions.

Apart from the above mentioned departments and sections, the Planning and Development Department Government of Sindh has four Attached Agencies under its administrative control. These agencies are: Sindh Regional Plan Organisation, Bureau of Statistics, Sindh Arid Zone Development Authority and Evaluation and Monitoring Cell.

Sindh Regional Plan Organization.

Sindh Regional Plan Organization (SRPO) was created as an autonomous body under the administrative control of the Planning and Development Department Government of Sindh through an act passed by the Provincial Assembly in 1976. It emerged as a result of the preparatory assistance project PAK-004/74 initiated in 1975 in collaboration with the UNDP for the formulation of the Regional Plan for Sindh. A team consisting of six senior officers was sent to participate in the Fifth Combined Course on Comprehensive Regional Development held in January 1976 at UNCRD, Nagoya Japan. The Fifth Combined Course took up Sindh Province as the case study. In view of the Combined Course, several surveys (household income and expenditure, and agriculture productivity) and investigations were carried out in collaboration with, and assisted by Boston University under the US-AID and Ford Foundation respectively. As a result of these surveys a four part (six-volume) comprehensive Regional Planning Report was produced in July 1976. The purpose of this whole exercise was to provide required data for Regional Planning in Sindh.

Functions of SRPO.

Sindh Regional Plan Organization has the following functions: preparation of regional, sub-regional and district plans for the Province of Sindh; conducting major surveys and investigations necessary for developing a broad framework for plan exercise; conducting analytical research on special problems of the economy of the Province; dissemination of the experience of Regional Planning in other Provinces of the country; organising training programmes on issues related to planning for the staff of Sindh Government; and to provide advice and assistance to the Planning and Development Department Government of Sindh as and when required.

Bureau of Statistics.

The Bureau of Statistics was established in 1970 with a total of 28 administrative and technical staff. The objectives of the Bureau are: the collection, compilation, tabulation and publication of statistical data on all sectors of the economy of the Province. One year after its establishment, the first scheme for its reorganisation and expansion was approved and implemented in 1971. Under this scheme, 178 posts were sanctioned and Field Offices were to be established in 8 District Headquarters. But very soon it was realized that the organisational arrangements and the strength of the Bureau were insufficient to cope with the growing statistical needs of the planners and the policy makers. Hence another development scheme for the expansion of the Head Office (Karachi) and the establishment of the Field Offices at sub-divisional level was prepared and executed. The Bureau at present employs 431 administrative and technical staff in its Head Office and in all Field Offices.

Functions of Bureau of Statistics (BOS).

Presently, the Bureau of Statistics has the following functions: to build up a sound and effective Provincial Statistical Programme and to keep it under a constant review to meet the Provincial requirements within the framework of the National System, to act as a liaison between the Federal and Provincial Governments on statistical matters and to serve as a secretariat for the Provincial Statistical Councils and extending their technical guidance and assistance to other Provincial Statistical Cells as and when requested by them to help in the problems of designing and conducting census and surveys, processing of data and preparing reports about the surveys and their results, preparation of the socio-economic indicators of the Province, and publication of the statistical documents to disseminate statistical information.

Sindh Arid Zone Development Authority.

The Sindh Arid Zone Development Authority (SAZDA) has been established as an autonomous body with a wide range of powers to formulate and implement a Comprehensive Development Plan. This Plan will undertake the development of land, water resources, the provision of infrastructure and the improvement of economic conditions in the Arid Zone (Thar, Nara and Kohistan) of Sindh Province. The Arid Zone consists of the Districts of mainly Tharparkar, Sanghar, Khairpur, Sukkur, Larkana, Dadu and Thatta within Sindh Province.

Functions of SAZDA.

The Sindh Arid Zone Development Authority, which came into existence through a bill passed by the Members of Sindh

Assembly (Parliament) carries out the following functions: the provision of basic minimum needs to the maximum number of people, introduction of income-generating activities, integration of the economy of the Arid Zone with the rest of Sindh; the exploitation of water resources for substantially increasing economic activity in the area; exploration of the economic potentials of the area, with benefit to the maximum number of people; the development of livestock potentials, mainstay of the desert economy; the provision of facilities for the development of small industries and mineral exploration; the provision of a network of low cost roads for opening up the area to boost commercial activities; and the improvement of human capital by providing better facilities for health and education within the Arid Zone.

Evaluation and Monitoring Cell.

The need for evaluation and monitoring has been accepted in principle by the Planning Agencies. Hence, the implementing agencies had created special cells within their organisations for this purpose. Because of insufficient equipment and trained staff there is an apparent lack of a sense of direction and of effective systems in all agencies at various levels. Therefore, the Evaluation and Monitoring Cell is being established in the Planning and Development Department Government of Sindh to evolve mechanisms to provide for effective evaluation and monitoring of the development schemes in implementing agencies as well as in the Planning and Development Department. This Cell will help primarily in assessing the impact of a development project before it is replicated or continued in the Annual Development Programme (ADP) in subsequent years.

Functions of Evaluation and Monitoring Cell (EAMC).

- a) Maintenance of upto date information about all on-going schemes included in the ADP in terms of the economic benefits, accomplishment of the physical targets and financial utilisation of the projects since their inception.
- b) Preparation of comprehensive reports on utilisation of the ADP allocations and progress of work of the physical targets of ADP for various sectors on a quarterly basis for consideration of the cabinet.
- c) Publishing periodically quantitative analyses of the projects describing impact of the on-going projects on the economy.
- d) Publishing annual reports, describing the goals achieved, targets accomplished and other such areas where project analyses has a direct bearing on the policy directives of the Government.

e) Undertaking special measures on post-implementation implications of the projects.

f) Provision of feed-back to Planning and Development Department on the progress of projects to assist them in determination of the sectoral allocation in the Annual Development Programme.

Appendix 3.

QUESTIONNAIRE

Introduction. Hello, Asalam-u-alakum. My name is Dost Ali, I belong to Hyderabad. At present I am doing Ph.D in the field of Urban Planning at Centre for Planning, University of Strathclyde, Glasgow U.K. The following questionnaire is a part of my study. As you are aware, most of the developing countries including Pakistan, are facing various development problems. Slums are one of these problems. The Government of Pakistan has tried its best to overcome the problem by applying various methods, but the slum is still a principal problem in metropolitan areas. This urgently needs a more effective solution. The purpose of my research, is to understand the nature of the problem and provide more suitable solutions, than those previously attempted. I am interested in learning about physical layout planning, and about social and economic activities in slum areas. I would like to know about your attitudes toward the problems faced by you. I am also interested to explore your attitude towards the current state of infrastructural and economic development. This will be possible only if people like you are kind enough to co-operate fully and provide me with comprehensive information. As a resident of slum area, your contribution is especially important and it will help enlarge my knowledge for planning with an emphasis on the preferences of slum residents. Your honest and accurate response will be greatly appreciated. I assure you that your answers will be treated in the strictest confidence and that you will not be identified in any way.

QUESTIONNAIRE.
THE SLUM AS THE PRINCIPAL PROBLEM IN
KARACHI METROPOLITAN AREA.

Name of area ----- Name of respondent -----

Sample no. ----- Address -----

Date of interview -----

In the beginning I would like you to tell me about your house, utilities and the tenure you have.

01. What type of dwelling do you live in?

Jhuggi	1
Katcha	2
Semi pacca	3
Pacca	4
Concrete	5

02. How many bed rooms are there in your house?

1 Room	1
2 Rooms	2
3 Rooms	3
4 Rooms	4
5 or more	5

03. Does your dwelling contain the following facilities?

Kitchen	1
Store	2
Bathroom attached	3
Bathroom +W.C	4
Living / Dinning hall	5
Open space	6
Other (specify)	7

04. Which of the following amenities does your house have?

Water supply	1
Electricity	2
Water tank	3
Gas	4
Telephone	5
None	6
Other (specify)	7

05. What source of water do you have?

Stand pipe	1
Water connection	2

Hand pump	3
Water tank	4
None	5
Other (specific)	6
06. What means of sanitation do you have in your house?	
Pit latrine	1
Bucket	2
Flush water	3
Closet	4
Other (Specify)	5
07. Where do you dispose of your sewage?	
Drainage	1
Pit latrine	2
On ground	3
Other (specify)	4
08. What do you do with the refuse of house?	
Burn it	1
Use it as fuel	2
Throw it in street	3
Dump far from house (public land)	4
Throw it on nearer vacate land	5
Other (specify)	6
09. What type of tenure do you have ?	
Owner occupier	1
Leasehold	2
Allottee (plot/house)	3
Allottee (plot+house)	4
Squat	5
Tenant household	6
Sharing	7
Other (specify)	8
10. Did you squat on?	
Plot	1
House	2
Plot+House	3
11. If 'built', How did you build your house?	
Yourself	1
With help of friends/relatives	2
By contracting labour	3
By contractor	4
Other (specify)	5

12. How long did it take you to build?

Les than 1 year	1
1 -- 5 years	2
6 -- 10 years	3
More than 10 years	4
Still under construction	5

13. Where did you obtain building material from?

Available on squatted land	1
From relatives/friends	2
Second hand material market	3
Contractors	4
Other (specify)	5

I hope you will not mind if I ask some questions about what is available for whole community in this area.

14. Do any of the following community facilities exist in this area.?

Mosque/Church	1
School(s)	2
Hospital/Maternity home	3
Community hall	4

15. Do any of the following recreational facilities exist in this area.?

Gardens	1
Playing grounds	2
Open spaces	3
Cinema	4

16. Do any of the following commercial/economical services exist in this area.?

Small shops	1
Shopping centres	2
Restaurants	3
Hotels	4
Factory	5
Industry	6

17. Are any of the following public/private transport facilities easily available in or nearby this area.?

Train	1
Bus service	2
Mini bus	3
Taxi	4
Auto rickshaw	5

18. Did any of the following changes occur during last five years in this area?

- None 1
- People moved in 2
- People moved out 3
- Evacuation 4
- Construction (public) 5
- Demolition 6
- Other (specify) 7

I would like to talk about household characteristics which I am sure will help me to know much about you people.

19. May I ask about number, age and sex of members living in this house.?

Age	Male	Female	Total
0-- 04			
5-- 09			
10-- 14			
15-- 19			
20- 24			
25-- 29			
30-- 34			
35-- 39			
40-- 44			
45-- 49			
50-- 54			
55-- 59			
60-- over			
Total			

20. What levels of qualification do your family members hold at present?

	Head	Adults			Children				
		1	2	3	1	2	3	4	5
Read + write	1	1	1	1	1	1	1	1	1
Primary	2	2	2	2	2	2	2	2	2
Secondary	3	3	3	3	3	3	3	3	3
Higher secondary	4	4	4	4	4	4	4	4	4
Diploma/degree	5	5	5	5	5	5	5	5	5
Post graduate	6	6	6	6	6	6	6	6	6
Illiterate	7	7	7	7	7	7	7	7	7

21. What occupation from the following list do your family members have?

	Head	Adults				Children				
	-----	1	2	3	4	1	2	3	4	5
Govt.	1	1	1	1	1	1	1	1	1	1
Unclassified	2	2	2	2	2	2	2	2	2	2
Family business	3	3	3	3	3	3	3	3	3	3
Craftsman	4	4	4	4	4	4	4	4	4	4
Unskilled	5	5	5	5	5	5	5	5	5	5
Own Farm	6	6	6	6	6	6	6	6	6	6
School(s)	7	7	7	7	7	7	7	7	7	7
University	8	8	8	8	8	8	8	8	8	8
Other	9	9	9	9	9	9	9	9	9	9

22. May I know about the Place of work and the mode that your family members use from home to place of work.

	Head	Adults				Children				
	-----	1	2	3	4	1	2	3	4	5
Place of Work.										
Same Area	1	1	1	1	1	1	1	1	1	1
Close to Area	2	2	2	2	2	2	2	2	2	2
City Centre	3	3	3	3	3	3	3	3	3	3
Other part of City	4	4	4	4	4	4	4	4	4	4
Mode of Journey.										
Company bus	1	1	1	1	1	1	1	1	1	1
Public Transport	2	2	2	2	2	2	2	2	2	2
On Foot	3	3	3	3	3	3	3	3	3	3
Bicycle	4	4	4	4	4	4	4	4	4	4
Taxi/Auto Rickshaw	5	5	5	5	5	5	5	5	5	5

As you know at the time of partition of India, a huge number of people migrated from India and after independence, people migrated from other parts of the country to the Karachi too.

23. If you migrated, where did you migrate from?

India.	1
Bangladesh	2
Another province of Pakistan.	3
Another city of Sind province.	4

24. When did you migrate to Karachi?

1	--	5	Years before	1
6	--	10	years before	2
11	--	15	years before	3
16	--	20	years before	4
21	--	25	years before	5
26	--	30	years before	6
31	--	35	years before	7
36	--	40	years before	8
			more than 40 years	9

25. How did you procure accommodation on coming in Karachi?

With a relative	1
With a friend	2
Purchased own house	3
Rented house	4
Squatted	5
Other (specify)	6

26. Where did you live before moving to this area?

Same area	1
Close to this area	2
Another part of city	3
Elsewhere (specify)	4

27. What attracts you to live in this house?

Location	1
Space	2
Cost of house	3
Privacy in house	4
Safety in area	5
Social links with local residents	6
Nothing	7
Other (specify)	8

As you know money is a very important thing in life. I think it should not be missed while talking about other things.

28. If house was purchased, how much did it cost?

les than	3000	Pak Rs:	1	
3000	--	4999	Pak Rs:	2
5000	--	7999	-	3
8000	--	9999	-	4
10000	--	over	-	5

29. Did you pay money for squatting permission? If so, to whom and what amount did you pay? Approx. Pak Rupees.

Squatter association	1
Influential local resident	2
Local councillor	3
Political leader of area	5
Other (specify)	6

30. Did you pay the capital cost of the following services? What was the system of payment?

Services.	Paid	Single	Instalment
Electricity	1	1	2
Tap-water	2	1	2
Drainage	3	1	2
Sewerage	4	1	2
Gas supply	5	1	2
Paved street	6	1	2

31. How much do you think you could sell it for now?

Approximately Pakistani Rupees. Rs.-----

32. In your opinion, how much is your basic income approx.?

Les than 400 Pak Rs.	1
401 ---- 800 Pak Rs.	2
801 ---- 1200 Pak Rs.	3
1201 ---- 1600 Pak Rs.	4
1601 ---- 2000 Pak Rs.	5

33. Do you have any extra source of income? If so, how many Rupees approximately do you receive monthly?

Source of income	Pak Rupees.			
-----	-----	-----	-----	-----
		100-200,	201-300,	301-400
		-----	-----	-----
Overtime at original work place.	1	1	2	3
Part time in free time	2	1	2	3
Home activities	3	1	2	3
Agricultural	4	1	2	3
Personal business	5	1	2	3
Other family members	6	1	2	3
None	7	1	2	3

34. How much do you spend in a month approximately?

Les than	300 Pak Rs.	1
301 ---	600 Pak Rs.	2
601 ----	900 Pak Rs.	3
901 ----	1200 Pak Rs.	4
1201 ----	1500 Pak Rs.	5
1501 ----	1800 Pak Rs.	6
1801 ----	2100 Pak Rs.	7

In the present scientific age, I prefer to be up to date. I use different media to get much information about world.

35. How do you usually obtain information about what is happening in the city?

By radio	1
By television	2
By newspaper	3
By discussion with friends	4
By own observation	5

36. Has anybody been interested in improving the quality of utilities and environment?

None	1
Yourself	2
Yourself with friends	3
Existing organisation(s)	4
Community as a whole	5
Others (specify)	6

37. Have you seen or even heard anything about the official plans for the improvement/development of this area? If yes, do you think these plans will benefit the poor residents of this area?

38. What kind of improvements do you wish most urgently?

of houses	1
of infrastructure	2
of education	3
of working conditions	4
in provision of jobs	5
of social structure	6
Other (specify)	7

THANK YOU VERY MUCH FOR CO-OPERATION.

Time completed -----

Length of interview ----- hours / minutes

In case we have to contact you to clarify some of your answers, could I please have your telephone number.

Telephone: Residence ----- Business -----

Interviewer thanks once again to respondent for his help and co-operation in providing required information.

Appendix 4.

Cost Analysis: Services to be Improved for 80 Households.

Case 1. Public Standpipes.

a) One Standpost Serving 40 Households.

Number of standpipes required	2
Cost @ Rs. 1000 per standpipe	Rs. 2000
Unit Cost Rs / household = 2000 / 80	Rs. 25

b) One Standpipe Serving 20 Households.

Number of standpipes required	4
Cost @ Rs. 1000 per standpipe	Rs. 4000
Unit Cost Rs / household = 4000 / 80	Rs. 50
Profits not applicable (self-help)	Rs. 0.00

The capital cost includes costs for material and labour.

Case 2. Mains Connection to Individual Households.

a) Connecting 12.5 mm dia pipe line 9 m (each).

Total pipe line required 9x80	720 m
Cost @ Rs. 40 per m	RS. 28800
Cost of taps, valves and other fixtures	Rs. 1200
Labour Charges.	
Skilled labour 4 @ Rs 40 for 5 days.	Rs. 800
Unskilled labour 4 @ Rs 20 each (5 days).	Rs. 400
1 Surveyor (employed in the office).	Rs. 0
1 Officer (employed) to visit site.	Rs. 0
Transport Charges (once)	Rs. 500
profits (self-help)	Rs. 0

Capital Cost of project Rs. 31700

Unit Cost / household = 31700/80 = Rs. 396.25

b) Connecting pipe line 12.5 mm dia 6 m (each).

Total pipe line required 6 m x 80	480 m
Cost @ Rs 40 per m	Rs. 19200
Cost of taps, valves and other fixtures	Rs. 1200
Labour Charges (Skilled and Unskilled) (4 skilled + 4 unskilled for four days)	Rs. 960
1 Surveyor	Rs. 0
1 Officer to visit site	Rs. 0
Transport Charges (once)	Rs. 500
Contractor profits (not applicable)	Rs. 0

Capital Cost of Project	Rs. 21860
Unit Cost per household = $21860/80 =$	Rs. 273.25

Case 3. Mains Connections to 40 (50%) Households.

a) Connecting 12.5 mm dia pipe line 9 m each.

Cost of Project (no contractor required)	Rs. 15850
Unit Cost per Household	Rs. 396.25

b) Connecting 12.5 mm dia pipe line 6 m each.

Cost of Project (no contractor required)	Rs. 10930
Unit Cost per Household	Rs. 273.25

Schedule to Collect Proposed Charges for Service.

i) Fixed at Rs. 5.00 per household per month.

Case 1. Public Standposts.

a)	5	months
b)	10	months

Cases 2 and 3. Mains Connection to Individual Households.

a)	79.2	months
b)	55.2	months