

**SUSTAINABLE URBAN DEVELOPMENT IN THE
KAMPUNG IMPROVEMENT PROGRAMME:
A CASE STUDY OF JAKARTA - INDONESIA**

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ABSTRACT

Recently, "sustainable development" has become the key concept in the integration of environmental and economic policy. However, little literature considers the links between sustainable development and urban development. This research focuses on these concepts and attempts to develop the term sustainable urban development through an investigation of the "Kampung Improvement Programme (KIP)", and particularly, a case study of Jakarta - Indonesia.

The main objectives of the research are to examine the sustainability of KIP-MHT in Jakarta, specifically to analyse the physical, economic, social and environmental characteristics that positively affect urban systems and should be considered as a component of sustainable urban development as a means of improving quality of life and standards of living.

The analysis is based on the data collected from two types of kampung areas: improved kampungs and unimproved kampungs. Moreover, each of these have two types of surveys: the household survey which examines the extent of movement of the people to the urban kampungs and their physical, social and economic living conditions; and the leadership survey which examines the extent to which kampungs settlers have participation, opinions, perception and satisfaction in the KIP.

The study concludes that the impact of KIP of the kampung study areas in Jakarta has been to improve not only the physical and environment conditions but also the social and economic conditions of the people as a means of increasing the standards of living and improving the quality of life. In considering the implications of these findings on sustainable urban development in Jakarta, it is shown that the KIP has been concerned with the creation of balanced urban development which does not jeopardise future generations. It is based on social, economic, physical and environment activities, and integrated approach among the government, community participation and international agencies.

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ABBREVIATIONS

ADB	Asian Development Bank
BAPPEM P-MHT	Badan Pelaksana Pembangunan Proyek Muhammad Husni Thamrin (Agency for the Project Development of Muhammad Husni Thamrin)
BAPPENAS	Badan Perencanaan Pembangunan Nasional (The National Development Planning Board)
BTN	Bank Tabungan Negara (The National Saving Bank)
DKI Jakarta	Daerah Khusus Ibukota Jakarta (Special territory of Jakarta)
FAO	the Food and Agriculture Organisations
GBHN	Garis Besar Haluan Negara (Guidelines of State Policy)
GNP	Gross National Product
Ipeda	Iuran Pembangunan Daerah (Property Tax)
IUCN	the International Union for the Conservation of Nature and Natural Resources
IUIDP	the Integrated Urban Infrastructure Development Programme
JABOTABEK	Jakarta Bogor Tangerang Bekasi
KIP	Kampung Improvement Programme
KIP-MHT	Kampung Improvement Programme - Muhammad Husni Thamrin
LKMD	Lembaga Ketahanan Masyarakat Desa (Organisation for Community Security)
MCK	Mandi Cuci Kakus (Bathing, Cleaning and Toilets)
NGO	Non-Government Organisation
NUDSP	the National Urban Development Strategy Project
PAM	Perusahaan Air Minum (Water Supply Agency)
PBB	Pajak Bumi dan Bangunan (Property Tax)
PERUMNAS	Perumahan Umum Nasional (State Housing Agency)
PLN	Perusahaan Listrik Negara (State Electricity Agency)
REPELITA	Rencana Pembangunan Lima Tahun (Five Year Development Plan)
Rp.	Rupiah (Indonesian currency)
RT	Rukun Tetangga (Block Groups)
RW	Rukun Warga (Neighbourhood Groups)
SPSS/PC	Statistical Package for Social Sciences/Personal Computer
SUSENAS	Survai Sosial Ekonomi Nasional (Survey National of Social Economic)
UN	the United Nations
UNCHS	the United Nations Centre for Human Settlement
UNEP	the United Nations Environmental Programme
WCED	the World Commission on Environment and Development



CHAPTER 1

INTRODUCTION

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents the justifications for undertaking the current research study. It begins by highlighting the research problem which is to provide an overview of the understanding of the concept of sustainable development, specifically in terms of sustainable urban development in developing countries. The second part will focus on the significance, the objectives and the hypotheses of the research that will be adopted for the case study of the Kampung Improvement Programme in Jakarta. The chapter further elaborates on the relevance of the research project, the scope and finally concludes with the organisation of the research.

1.2 Research Problem

This research is designed to contribute to and to increase the understanding of the concept of sustainability and sustainable development, specifically in terms of urban development. Since its first major public appearance in the World Conservation Strategy of 1980, the term 'sustainable development' has become the key concept in the integration of environmental and economic policy.

The concept of sustainable development has received increasing attention in developed and developing countries, and from national and international organisations. It derives from concern over the inter-relationships between human populations, natural resources, environment and economic development.

Environment and natural resources degradation, which are increasingly serious problems in the developing world, threaten the long term development in some countries (Pearson, 1987). The problems are serious now and have even more serious implications for the future. Developing countries are now beginning to show a willingness to find a solution to this problem. In recent years there has occurred a major revision in development thinking which presents a fundamental challenge to the conventional consensus on urban development.

The concept of sustainable development as applied to the Third World countries is therefore directly concerned with increasing the material standard of living of the poor at the grassroots level, including real incomes, educational services, health care, sanitation and water supply, and is only indirectly concerned with economic growth at the aggregate national level (Barbier, 1987; Gilbert and Braat, 1991).

However, there is hardly any literature on the concept of sustainable development in urban development. References have been drawn from the literature on sustainable development in its environmental and economical contexts. Only a small proportion considers sustainable development with regard to urban systems and urban areas (Barbier, 1987; Gardner, 1989; Western, 1988; Gilbert and Braat, 1991; Balamurugan and Sim, 1991; and Satterthwaite (ed.), 1992). Nevertheless, some research has attempted to develop the concept of sustainable development in physical, economical and social terms, and then to relate this to the limited literature available on urban development (Elkin, McLaren and Hillman, 1991; Stren, White and Whitney, 1992; Hardoy, Mitlin and Satterthwaite, 1992; Atkinson, 1992; Choguill, 1993).

In terms of sustainability of cities, Hardoy, Mitlin and Satterthwaite (1992) stated that the objectives of sustainable development are to increase the standard of living of the poor, particularly through urban infrastructure and services, in a political, economic and social system that is effective and efficient in decision making, a technological system that can support urban development and an administrative system that can manage it.

Therefore, the priorities for a move towards sustainable development are going to differ greatly from city to city. For cities or urban systems with high levels of non-renewable resource use, the priority must be increasingly to lower the levels of fossil fuel use and waste generation through reducing waste levels and recycling. On the contrary, for cities with low levels of non-renewable resource use and waste generation, which usually implies relatively poor cities, the priority is the achievement of social, economic and political goals, but within a commitment to minimise that city's call on its local and regional environmental capital and also on the global sink for wastes (e.g. for greenhouse gases, stratospheric ozone depleting chemicals, persistent chemicals, for liquid wastes and surface run-off, keeping within absorptive capacities of water bodies etc.). This implies the need for limiting global warming by contributing to lower levels of greenhouse gas emissions; building defences and incorporating additional safety features within the built environment; and developing disaster preparedness (Satterthwaite (ed.), 1992).

Therefore, the author will attempt to formulate the concept within this framework in terms of the urban development of a low income city. There are two reasons why this formulation is significant. First, the economic policy has not been sustainable in this sense in the industrialised world. Therefore, sustainable development implies that economic policy must change. Second, the new goal does not relate just to environmental protection. It implies qualitative as well as quantitative improvement to the future needs (Jacobs, 1990).

Barbier (1987) stresses that 'real' improvement cannot occur in Third World countries or anywhere else unless the strategies that are being formulated and implemented are environmentally sustainable. As a result, there is a growing recognition that the overall goals of environment and development are not in conflict but are indeed the same, namely, the improvement of the human quality of welfare for present and future generations.

Choguill (1993:10) states that urban sustainability is not an easy state to achieve. Even the modest suggestions included here would require a significant reconsideration of much that is today considered acceptable urban policy. In order to achieve something approaching urban sustainability, a reconsideration of the way current priorities - economic, societal and technological - are set is needed. They must necessarily be extended to include the environment in its broadest sense. Self-reliance and self-help undoubtedly become increasingly important elements of any strategy toward urban sustainability, therefore, there are serious implications with respect to the role of the state in developing the ability to become an 'enabler' or a 'facilitator'.

1.3 Significance of the Research

In order to understand the linkages between sustainable development and urban development in terms of the Kampung Improvement Programme (KIP), it is necessary to refer to the political, economic and social contexts in which the programme was formulated and implemented.

The distribution of benefits of economic development in Indonesia, like many other developing countries, is very unequal. In terms of living conditions, Indonesia has extreme disparities between provinces and within provinces and particularly between rural and urban areas, and among urban areas.

The increasing spatial unevenness of development resulting from economic growth and policies adopted over the past three decades in Indonesia has led to the adoption of various urban and regional policies aimed at decentralising development away from Jakarta (Douglass, 1990).

Most Indonesian cities have grown through a process of agglomeration of existing villages called **kampungs**, with the status of informal settlements. Many of these migrants ended up living in sprawling kampungs and working in the informal sector activities. These kampungs, which have been built and developed incrementally by their inhabitants, may be seen as the building blocks of the Indonesian city. Urban

growth is occurring through the transformation of rural villages into urban kampungs which have minimum facilities and services.

Most kampung areas are occupied by the lower and lowest-income people and they have only limited resources with which to erect houses and to organise their neighbourhoods. As a result, a large number of dwellings in the kampungs are built of makeshift materials while basic infrastructure is lacking.

Therefore, this research hopes to clarify various aspects of theory and approaches to organisation which will together lead to the analysis of sustainable development in these urban areas. This research deals with sustainable urban development within this context.

Jakarta is the case study for this research. The population of Jakarta, as the capital and largest city of Indonesia, has been growing very rapidly. However, the existing conditions of urban growth and planning in Jakarta contain many weaknesses. There is little access to land for housing development, especially for low income people. The provisions of infrastructure facilities are far short of the needs of the city. The supply is less than the demand. Two-thirds of the population of Jakarta lives in semi permanent housing.

Choguill (1987) mentioned that the success of urban development depends on getting right the five fundamental aspects of planning that have Third World-wide significance such as an appropriate organisation structure and co-ordination, finance, technology, cultural understanding and public participation.

Due to the limited resources available to the city government of Jakarta the Kampung Improvement Programme (KIP) was introduced to upgrade the physical condition of kampungs. This programme basically was to improve and to provide the essential needs of the people, such as infrastructure, sanitation and social facilities. It has, since its introduction, improved not only the social condition of the people but also environmental conditions. The programme has also been popular all over the

world, receiving loans from international institutions, and also an award from an international foundation (the Aga Khan Award in 1980).

In the case of this study, there have been a number of evaluations of the KIP for Jakarta. These include government studies, and studies by foreign consulting firms and independent studies. Most of these studies have focused on the impacts of KIP implementation on urban development and housing quality (Parman, 1977; Specker, 1981; Baross, 1984; Soegijoko, 1985; UNCRD, 1988; Utoro, 1989). More seriously, a consideration of the implementation aspects has been made of the management implications of urban upgrading strategies and the institution of administration and organisation, particularly in upgrading of low-income residential areas (Devas, 1981; Patton, 1988; Taylor 1982; Darrundono, 1988; Setiobudi, 1990; Silas, 1992; Milone, 1993).

However, the question still remains as to why KIP was able to achieve such a massive coverage so very quickly. Several factors can be identified. The first was that KIPs started from local initiatives with no anticipation of outside funding. Second, KIPs developed into full coverage because improvement standards were set at low levels which the local communities could afford. Third, institutionally the existing system of government structure was used. Therefore, little extra budget expenditure was required. Finally, the land issue did not pose as many problems as in other countries. The fact that the land was provided 'by the people', not 'to the people', and that the government could actually acquire land following KIP is very important and a distinct characteristic of the KIP in Indonesia.

Furthermore, the results of the programmes that can be viewed as sustainable in the urban development context include the process of change of living conditions with results such that there is no displacement of the poor by the better off; a positive effect on physical development of the city; an improvement effect on city-wide distribution of services; positive implications of the financial and manpower costs for the rest of the

urban system and for alternative housing options; and distribution of benefits and programme resources within areas (Soegijoko, 1985; Silas, 1992).

1.4 Objectives of the Research

The main purpose of this research is to examine the various issues related to urban settlements in kampung areas in Jakarta and to bring them to the attention of politicians, decision makers and planners who are involved in delivering, planning, implementing, monitoring and evaluating urban growth. The idea is to come up with a set of recommendations that could work as guidelines for the government, public and private sectors in policy formulation.

Given the background and the problems mentioned above the objectives of the research are as follows :

- A. to review the approaches of urban development planning, analysing the socio-economic characteristics that result from KIP;**
- B. to examine the sustainability of the KIP in Jakarta, analysing the physical and environmental characteristics of urban growth that are taking place in kampung areas;**
- C. to identify a number of specific implementation issues such as the institutional framework and community participation that have positively affected urban systems; and**
- D. to study KIP in terms of its potential as a basis of sustainable urban development and as a means of improving quality of life.**

1.5 Research Hypotheses

The research intends to test the following hypotheses regarding the impact and effectiveness of the Kampung Improvement Programme on Sustainable Urban Development.

Hypothesis 1: "**Socio-Economic Hypotheses**", as the primary objective is to review the approaches of urban development planning, analysing the socio-economic characteristics that result from KIP, and based upon the fourth objective, therefore the research hypotheses that will be tested are:

1.a. The kampungs are inhabited by low income people.

Sub-hypotheses:

- i. The majority of the people in kampungs are low-income earners.
- ii. The majority of the people in kampungs are employed in the informal sector and educated to a low level of education.

1.b. The people in kampungs have migrated from outside the region to Jakarta.

Sub-hypotheses:

- i. The majority of the people in kampungs are originally from rural areas or smaller cities.
- ii. The majority of the people in kampungs work near by.

Hypothesis 2: "**Physical and Environmental Hypotheses**" based upon the secondary objective, hypotheses to be tested are:

2.a. The Kampung Improvement Programme is consistent with the concept of sustainable urban development.

Sub-hypotheses:

- i. The programme ensures that the poor have access to secure livelihoods.
- ii. The development process satisfies basic human needs, such as clean water, adequate shelter and equality of education.
- iii. The Kampung Improvement Programme has significantly improved household living conditions at a cost that is sustainable even given low household incomes of participants.

2.b. The main purpose of the Kampung Improvement Programme is to improve the physical infrastructure and the living conditions of the people who live in kampungs.

Sub-hypotheses:

- i. The improvements of kampung areas are designed to improve physical, economic and social conditions of human settlement.
- ii. The improvements of kampung areas are designed to minimise environmental degradation.

Hypothesis 3: "**Institutional and Community Hypotheses**", based on the third objective, hypotheses to be tested are:

3.a. A national policy in KIP is to minimise central government involvement in the local kampung planning process in the long run.

Sub-hypotheses:

- i. The central government plays a major role in provision of physical infrastructure facilities while implementing KIPs.
- ii. The principle of KIP is co-ordination and integration of government and community for urban development.

3.b. The success of KIP is dependent on the spirit of community participation in 'mutual-help'.

Sub-hypotheses:

- i. Public participation in the KIP is easily enacted and mobilised.
- ii. The people are directly involved in the operation and maintenance of the projects.

1.6 Scope and Limitations of the Research

Given the research objectives and hypotheses stated above, the study area is limited to kampungs which are comprised of urban areas and selected from among kampungs of Jakarta. With the physical transformation and socio-economic

interactions taking place in the kampung areas of Jakarta, the factors of selection of the kampung areas are as follows: age of kampung, amount of improvement, population density, infrastructure and condition of services, location with respect to workplaces, and predominantly low-income households.

The areas will be selected according to three main factors. First, the nature and structure of the kampung. Of importance in considering this factor is the existence of a village administration in the form of a *kelurahan* which is the lowest level of local government. The second selection factor is the characteristics of urban kampung areas in terms of physical condition of dwellings and surroundings: extent of overcrowding and congestion of dwellings and people; relative age of the settlements; type of land and houses occupied; adequacy of urban services including water, energy, medical and welfare services; community organisation; ethnic or class homogeneity or heterogeneity; apathy and social insulation; and disease rates and extent of health and sanitation. The third factor is the extent of improvements as a result of the Kampung Improvement Programme (KIP) in Jakarta distinguishing between the kampung areas which have already been improved by the KIP, called '**improved kampungs**' and the kampung areas which have yet to be improved, called '**unimproved kampungs**'. This will be followed by a description of the kampungs that have been selected for the investigation given the linkage patterns of urban settlement in urban kampungs of Jakarta.

The administrative structure in Jakarta is divided into five administrative city zones which have status as Regions or municipalities (**Kota Madya**). The five administrative city zones (**Wilayah**) are divided into 43 sub-districts (**Kecamatan**) and 260 villages (**Kelurahan**) (Statistics Jakarta, 1990). Therefore, the author proposes to select five *kelurahans* (villages) for this research as a representative of each of the municipalities of Jakarta.

Three *kelurahans* are representative of areas that have already been improved through the KIP, such as *Kelurahans Menteng, Kali Anyar and Pela Mampang*. The

main reason for selecting these 'improved kampungs', in consultation with BAPPEM P-MHT, include: first, the subject of all criteria of kampung area selection for improvement; second, a successful record of implementation and maintenance; third, effectiveness of KIP components; and fourth, a stated objective of improving the standard of living.

Two kelurahans are as yet unimproved by the KIP, including Kelurahan Sunter Jaya and Ujung Menteng. The reason for selecting these 'unimproved kampungs' are: first, they represent locations that have been identified by KIP-MHT 3 for improvement in the period 1989 - 1994; second, they have all of the traditional characteristics of unimproved kampungs; third, they are both located in peripheral areas in the general vicinity of the improved kampungs to be examined; and fourth, they represent good opportunities for improving the quality of life by community participation.

1.7 Organisation of the Research

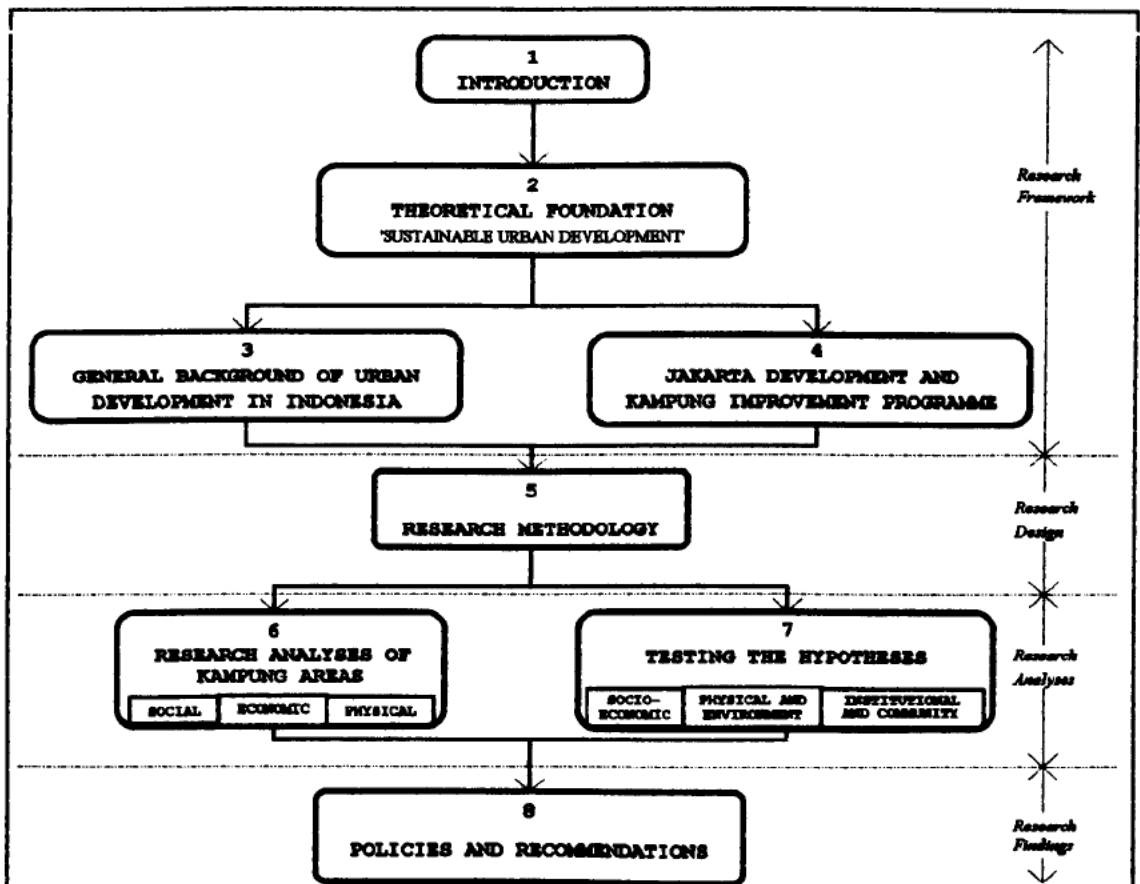
The thesis is structured into eight chapters. Chapter One provides an introduction, which explains the problem to be dealt with in this research, a statement of the problem, the significance of the study, the objectives and the hypotheses that are investigated. Chapter Two is the literature in an attempt to identify the state of the art in dealing with concepts of this type. The investigation is concerned with the concept of sustainable urban development and attempts to provide a conceptual framework for urban development in developing countries.

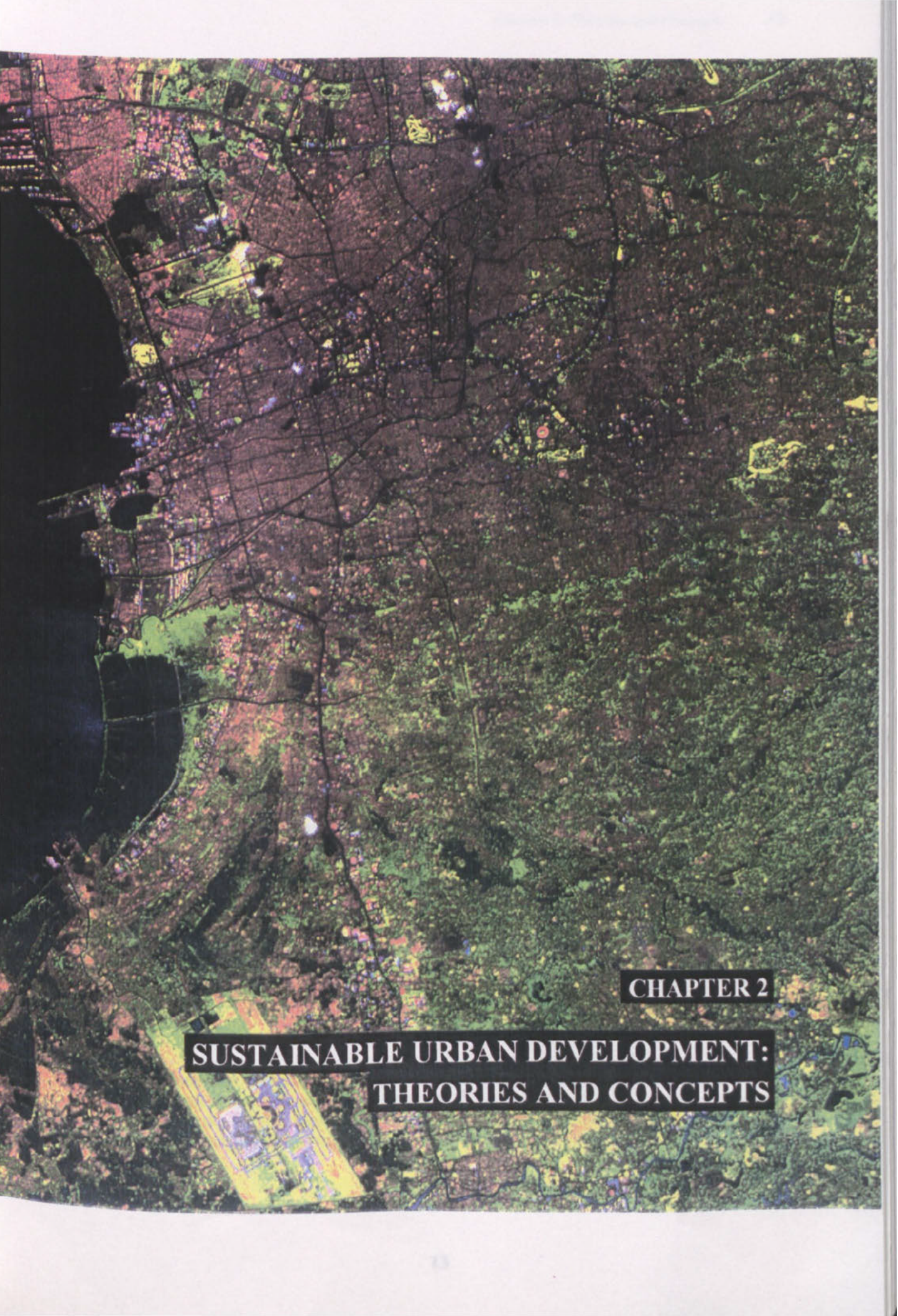
Chapter Three describes the policies of the Government of Indonesia, particularly those relating to the urban development programme and the kampung improvement programme, in order to discover the root cause of such urban settlement problems that exist in the country. In Chapter Four, the extent of urban growth and urban problems in Jakarta is examined.

Chapter Five presents the research methodology which will be followed in the study. It begins with the basis for the selection of the study areas. The chapter proceeds with the description of the data collection, questionnaire design and techniques of data analysis used in this research.

The following chapters present the main findings of the research. Chapter Six provides analyses of the social, economic, and physical characteristics of the kampung areas. Chapter Seven outlines the testing of hypotheses in relation to the impact of Kampung Improvement Programme in Jakarta on sustainable urban development. Chapter Eight discusses the main findings, highlighting them as they relate to the basic theory discussed in Chapter Two, as well as the findings of other investigators. In the final section of Chapter Eight, suggestions, policies and recommendations are presented for the planning of sustainable urban development. Diagram 1.1 shows the research organisation of this thesis.

Diagram 1.1 Research Organisation





CHAPTER 2

**SUSTAINABLE URBAN DEVELOPMENT:
THEORIES AND CONCEPTS**

CHAPTER TWO

SUSTAINABLE URBAN DEVELOPMENT: THEORIES AND CONCEPTS

2.1 Introduction

The purpose of this chapter is to review the basic theoretical aspects and literature concerned with the concepts and theories related to sustainable urban development. It attempts to point out the forces which influence urban development, particularly rapid urbanisation, urban growth, urban services and the residential areas of a city. The chapter is also designed to explore various forces previously overlooked in considering the concept of sustainable development by previous researchers. Also in this chapter, an attempt is made to identify a conceptual framework and an approach for sustainable urban development.

2.2 The Concept of Sustainable Development

Since its first major public appearance in the World Conservation Strategy of 1980, the term 'sustainable development' has become the key concept in the integration of environmental and economic policy. The world conservation strategy says that

"sustainable development must take account of social and ecological factors, as well as economic ones; of the living and non-living resources base; and of the long term as well as the short term advantages and disadvantages of alternative actions" (Quoted from Gardner, 1989:338).

The concept of sustainable development is receiving increasing attention in developed and developing countries, and within national and international organisations. This derives from concern over the inter-relationships between human populations, natural resources, environment and economic development (IUCN, 1980; WCED, 1987; FAO, 1989).

Although, it may be extremely difficult to define sustainable development in any analytically rigorous way, there is still a need to describe its characteristics and to distinguish it from other concepts of development and sustainability (Barbier, 1987; Gardner, 1989; Pearce, et.al., 1990; Hardoy, Mitlin and Satterthwaite, 1992). To do this, the aim of the following section attempts to define and substantiate the concept of sustainable development (Barbier, 1987; Western, 1988; Gardner, 1989; Gilbert and Braat, 1991; Pearce, et.al., 1990; Gow, 1992).

Before discussing sustainable development, it is worth considering the definition, meaning and interpretations given to development and sustainability.

2.2.1 Defining Development

A definitive meaning of development is extremely difficult to provide (Brown, 1991; Bruton, 1985; Barnett, 1988). Therefore, there are varying and subjective assumptions concerning the components of development.

According to Dower (1992:97) "the root idea of development is about a process of change which occurs in a society in which the well-being of people is increased". This begins to look like the UN definition on "Declaration on the Right to Development", which it characterises as follows :

"Development is a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all its individuals on the basis of their active, free and meaningful participation in development and in the fair distribution of benefits resulting therefrom" (United Nations, 1986, 41/128, preamble para 2; Quoted from Dower, 1992:94).

The UN definition describes a comprehensive process aiming at the constant improvement of the well-being of the entire population and of all individuals. This definition in fact makes reference to well-being in two rather different ways. First, it examines well-being in terms of a number of dimensions: social, cultural, political, as well as economic well-being. As Streeten (1972:30) states, "development as an objective and development as a process both embrace a change in fundamental attitudes... and in social, cultural and political institutions".

According to Nyerere (1973:23), "development means the development of people". Honjo's (1980) perception is that development should be geared to the betterment of human beings as a whole; and is perhaps, indicative and representative of the growing consensus that the fundamental and ultimate objective underlying development is the people. Hence, Misra (1981:21) has asserted that "all development processes aim at human welfare" and Mabogunje (1981:236) has written that "improvement in the 'quality' of the population is, of course, what development is all about".

Second, well-being refers to certain characteristics of social life such as free participation and fairness in the distribution of benefits, i.e. to certain moral characteristics of a society, such as justice and liberty. As Portes (1976:77) notes, "...development consists of liberation from external control and from the internal structures of inequality which it promises". Seers (1972) and Adelman and Morris (1972) view reduction of inequalities as an important criterion of development. Implicit in this notion of development is an equitable distribution of development benefits and opportunities.

According to Todaro (1989:88) "development must, therefore, be conceived of as a multidimensional process involving major changes in social structure, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of absolute poverty". He believes that development, in its essence, must represent the whole gamut of change by which an

entire social system, tuned to the diverse basic needs and desire of individuals and social groups within that system, moves away from a condition of life widely perceived as unsatisfactory and toward a situation or condition of life regarded as materially and spiritually better.

However, many researchers have argued that development refers not only to economic growth but also to improved welfare of the people (Seer, 1972; Murdoch, 1980; Harris, 1990; Dower, 1992). Dower mentioned that

"It is well recognised by many that development cannot simply be about economic growth. For we can imagine countries in which economic growth occurs and the GNP (Gross National Product) goes up, but certain other things do not occur, like improvements for the very poor who are left out, or maintenance of civil liberties and democratic freedoms." (1992:97).

Seers (1972) has distinguished the reduction of poverty, unemployment and inequality as basic parameters of development. He argues that in order to reduce poverty or serve the lagging regions, development policies must be oriented directly towards the problems of poverty, and must be motivated and initially controlled from the bottom. Consequently, the development policies should be designed to distribute the benefits of development more equitably.

Additionally, Todaro mentioned that development in all societies must have at least three objectives:

"First, to increase the availability, widen the distribution of basic life-sustaining goods such as food, shelter, and protection. Second, to raise levels of living including, in addition to higher incomes, the provision of more jobs, better education, and greater attention to cultural and humanistic values, all of which will serve not only to enhance material well-being but also to generate greater individual and national self-esteem. Third, to expand the range of economic and social choices available to individuals and nations by freeing them from servitude and dependence not only in relation to other people and nation-states but also to the forces of ignorance and human misery" (1989:90-91).

From the various meanings of development, it can be seen that the goals of development can be summed up: improved quality of live, increased productivity, and improvement in human well-being. These goals are not independent of each other, rather they are inter-related. It is very clear that development as a goal of human

endeavour is essentially the label we use for the processes of change which are seen as good, or even seen as what ought to occur (Dower, 1992:98).

2.2.2 The Meaning of Sustainability

As with the term 'development', sustainability has been given many different meanings (Jacobs, 1990; Gow, 1992; Dower, 1992; Hardoy, Mitlin and Satterthwaite, 1992). As Dower (1992:110) states, "the idea of sustainability seems fairly clear: an activity, state of affairs or process is sustainable if it is capable of being sustained, that is, capable of continuing in the future without change".

Gow (1992:51) mentioned that

"Sustainability is like happiness - everyone believes in it and everyone has a different definition. In fact, sustainability has become so all-encompassing as to be virtually toothless, whether it is financial, institutional, economic, environmental, or technical, to name a few of the more common manifestations."

According to Hardoy, Mitlin and Satterthwaite (1992:175)

"Sustainability is generally used to contrast with a lack of sustainability which is seen as something which breaks down or does not continue. In some cases,...is used simply to mean that the long-term result of some action or set of actions is consistent with desired outcomes".

Furthermore, sustainability implies that people living in the future should have the opportunity to experience the same level of well-being from and use of the natural environment as the present generation. It means that the quantity and quality of natural resources and functions should be maintained at a constant level (Jacobs, 1990:9).

Sustainability can be seen as a commitment to intergenerational equity. It can be derived from a Rawlesian approach to distributive justice, in which people choose the distribution of resources in ignorance of the generation they themselves belong to. Or it may be regarded simply as a logical extension of existing commitments to equity within the current generation (Norgaard, 1992:95-99).

However, there is also some confusion as to what is to be sustained, that is, to what the criteria of 'sustainability' should be applied. This is particularly apparent in

respect to two areas: first, to what sectors does it apply - ecological, social or economic; and second, at what scale - local projects, cities, nations, or the sum of all activities globally (Hardoy, Mitlin and Satterthwaite, 1992:175).

In terms of sectors, sustainable is most widely used in reference to ecological sustainability. It refers to the natural resources used either in a specific project or broader programme of human activities. The use of the term is premised on the understanding that natural resources are necessary to economic development but there are finite limits in their supply (Gow, 1992; Pearce, Barbier and Markandya, 1990).

In terms of projects, achieving sustainability is about making projects continue to operate and meet development objectives when the agencies' external support is cut off at the 'end of the project'. Therefore, sustainability has come to have two different meanings: first, a project which secures development objectives with a sustainable use of natural resources both for productive inputs and waste assimilation, and second, a project which secures development objectives which will continue without outside support once the initial project finishes (Hardoy, Mitlin and Satterthwaite, 1992:176).

Furthermore, activities which are judged to be sustainable in the ecological sector sense meet one or more of any three criteria. First, the activity does not damage natural resources significantly so that the same quality and quantity of such resources are available for further use as if the project had never happened. Second, the activity does damage some natural resources but it has positive impacts on other natural resources such that the net effect is judged to be resource neutral. Third, the activity does not damage the natural resources required for completing the activity itself.

From the various meanings and conceptualisations of sustainability, it can be seen that the goals of sustainability can be summed up. First, sustainability depends on the interaction of economic changes with social, cultural, and ecological transformation. Second, it is about what 'ought to be' sustained rather than what merely 'can be' sustained. Third, it is about stability in ecological and environmental conditions for future generations.

2.2.3 Defining and Measuring Sustainable Development

Having defined sustainability and development above, the following section aims to give an understanding of the concept of sustainable development. It is useful to start by pointing out that the origin of concern for both environment and development go back several decades. The World Commission on Environment and Development (WCED, 1987:43) approached the concept more directly in its report, which is referred to as the 'Brundtland Report': **"sustainable development is ... development that meets the needs of the present without compromising the ability of further generations to meet their own needs"**.

In the broadest sense, most discussion about sustainable development falls within this definition, although different groups choose to emphasise different aspects. The literature on sustainable development has grown so rapidly that there are many different definitions of it (Barbier, 1987; Gardner, 1989; FAO, 1989; Dower, 1992).

For instance, The Food and Agriculture Organisation of the United Nations (FAO, 1989) stated that:

"sustainable development is the management and conservation of the natural resource base, and the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations. Such sustainable development (in the agriculture, forestry and fishery sectors) conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable".

The Canadian National Task Force on Environment and Economy (1987) adopted a similar interpretation of the term as seen below:

"sustainable development is... development that ensures that the utilisation of resources and the environment today does not damage prospects for their use by future generations" (Quoted from Gardner, 1989:338).

A similar definition is advanced by Repetto (1986:15):

"sustainable development is a development strategy that manages all assets, natural resources, and human resources, as well as financial and physical assets, for increasing long-term wealth and well-being. Sustainable development, as a goal rejects policies and practices that support current living standards by depleting the productive base, including natural

resources, and that leaves future generations with poorer prospects and greater risks than our own".

Furthermore, Dower (1992:93) concerns the core idea of sustainable development in the modern context:

"...is that of a kind of development (i.e. socio-economic process), whether in poorer countries or in richer countries, which so treats the natural environment that the process of development, or at least the products or benefits of that process, can continue into the future in a sustainable way, both for ourselves and our children, and for future generation".

From both the various conceptualisations of sustainable development and meaning of sustainability and development as noted above, it can be seen that the 'sustainable' component of 'sustainable development' is used only in terms of ecological sustainability, that is, in terms of modes of natural resource use and use of local and global sinks which can be sustained without compromising the ability of future generations to meet their own needs. The 'development' component includes all economic, social, political and cultural goals.

In essence, sustainable development is not a fixed state but a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations (WCED, 1987:46).

However, those definitions are all embracing. Basically, there is a belief held by many recent researchers on Third World poverty that sustainable development means increasing the capacity of people to influence and control their future on a long-term basis, a goal that can be achieved by acknowledging that people have a right to sustainable development and such kinds of social, political and economic changes so that people in the future can achieve well-being as well (Gow, 1988, 1992; Salim, 1987; Salas, 1987; Norgaard, 1992; Meredith, 1992).

To realise this goal, many developing countries are establishing new environmental and natural resource management policies, and they are devoting

considerable financial and human resources to the effort (Amatya, et.al., 1987; Balamurugan, et.al., 1991; Salas, 1987; Salim, 1987).

Therefore, the term sustainable development brings together two strands of thought about the management of human activities (Hardoy, Mitlin and Satterthwaite, 1992:172-182). The first, concentrates on development goals, which are meeting each person's right to a standard of living adequate for health and well-being including food, clothing, housing and medical care and necessary social services. It is clear that urban policies and institutions have a central role in ensuring the fulfilment of, for instance, people's needs for water, sanitation, safe and secure shelter, transport and an environment safe from life or health threatening pollutants, pathogens or other hazards. All of these, should include the right to vote within representative government structures.

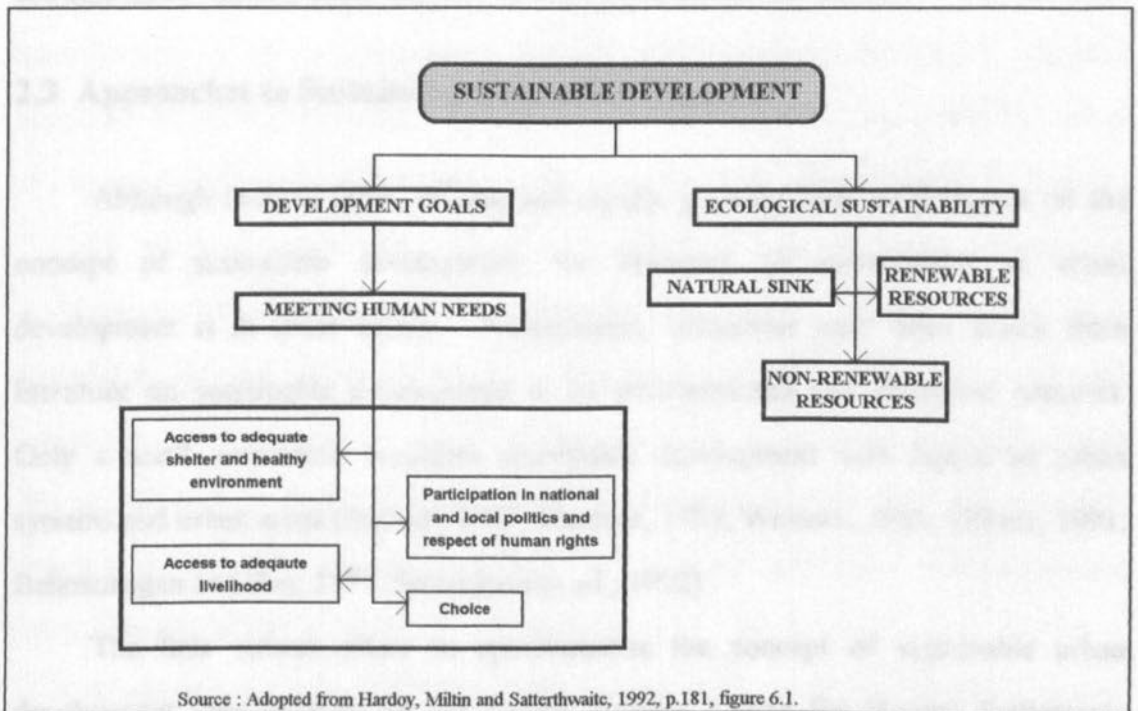
A second concerns the controlling or limiting of the harmful impacts of human activities on the environment. It requires no depletion of environmental capital, including the 'natural sink', capacity of local and global systems to absorb or break down human wastes; the finite stock of 'non-renewable resources', for instance fossil fuels and other mineral resources; and 'renewable resources'.

Diagram 2.1 shows the components of sustainable development that require the simultaneous achievement of development goals and ecological sustainability. It is appropriate to use such diagram for both particular activities and in reference to larger city-wide or nation wide systems.

There are two key concepts in sustainable development (WCED, 1987:44). First, the concepts of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given. In general terms, the primary objective is reducing the absolute poverty of the world's poor through providing lasting and secure livelihoods that minimise resource depletion, environmental degradation, cultural disruption and social instability.

Second, the idea of limitations imposed by the state of technology and social organisations on the environment's ability to meet present and future needs. However, sustainable development can only be pursued if demographic developments are in harmony with the changing productive potential of the ecosystems.

Diagram 2.1
COMPONENTS OF SUSTAINABLE DEVELOPMENT



Therefore, the pursuit of sustainable development requires seven principles; first, a political system that sources effective citizen participation in decision making; second, an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis; third, a social system that provides for solutions for the tensions arising from disharmonious development; fourth, a production system that respects the obligation to preserve the ecological base for development; fifth, a technological system that can search continuously for new solutions; sixth, an international system that fosters sustainable patterns of trade and finance; and lastly, an

administrative system that is flexible and has the capacity for self-correction (WCED, 1987:65).

Subsequently, the concept of sustainable development as applied to Third World countries is directly concerned with increasing the material standard of living of the poor at the grassroots level, including real incomes, educational services, health care, sanitation and water supply, and is only indirectly concerned with economic growth at the aggregate national level (Barbier, 1987; Gilbert and Braat, 1991).

2.3 Approaches to Sustainable Urban Development

Although there is large, diverse and rapidly growing body of literature on the concept of sustainable development, the literature on sustainability in urban development is in short supply. Nevertheless, references have been drawn from literature on sustainable development in its environmental and economic contexts. Only a small proportion considers sustainable development with regard to urban systems and urban areas (Barbier, 1987; Gardner, 1989; Western, 1988; Gilbert, 1991; Balamurugan and Sim, 1991; Satterthwaite ed., 1992).

The first serious effort to operationalize the concept of sustainable urban development was initiated by the United Nations Centre for Human Settlements (UNCHS) in August 1990. This was through the Sustainable Cities Programme, which is a global programme that supports a number of city-level projects and deserves close attention from practitioners who are concerned with how best to apply our emerging new thinking about the sustainability of urban development (Veena Jha, 1992).

Furthermore, attempts have been made to develop the concept of sustainable development in physical, economical, social and environment terms, and then to relate them to the limited literature available on urban development (Elkin, McLaren and Hillman, 1991; Stren, White and Whitney, 1992; Hardoy, Mitlin and Satterthwaite, 1992; Atkinson, 1992; Choguill, 1993).

In fact the theoretical structure should be multidisciplinary and will need to examine the variables that are considered important in a two way approach of development goals and ecological sustainability. Therefore, sustainable urban development is conditionally no different from sustainable development in general.

According to Veena Jha (1992:7) the future research on sustainable urban development should identify the variables which come into play in determining the impact of the global environment on local urban areas and the impact of local urban environments on global environmental concerns. Moreover, she added it is also important to identify the actual and potential conflict which can arise between urban and national concerns in determining amelioratives to urban environmental problems.

In terms of sustainability of cities, the relevant principles and objectives of sustainable urban development are to increase the standard of living of the poor, particularly through urban infrastructure and services, in a political, economic and social system that is effective and efficient in decision making, a technological system that can support urban development and an administrative system which can manage it (Hardoy, Mitlin and Satterthwaite, 1992; Balamurugan and Sim, 1991; Rogerson, 1992; Dattatri, 1992).

Moreover, the main objectives of present urban development efforts are to improve the urban growth problems and to minimise the environmental degradation and the vicious poverty-trap suffered by the residents. In considering sustainable development in urban areas, the priorities are to create a balanced type urban development without jeopardising future generations and through the need for poor people to gain better livelihoods than formerly.

For instance, Dattatri (1992) examines the sustainable cities programme in Madras, India. Also, Rogerson (1992) describes the challenges of sustainable urban development in South Africa. Both of them are the actual field experience of cities and development in developing countries that urban settlements play in the processes of

development. Specifically, new approaches have looked more critically upon the assumed function of large cities as the generators of modernisation and development.

Therefore, the priorities in a move towards sustainable urban development are going to differ greatly from city to city. For instance, the sustainable development of urban areas in Africa, Asia and Latin America must have the improvement of housing, living and working environments of poorer groups as its central focus because of unsafe and insufficient water, poor quality and often overcrowded shelter, inadequate provision for sanitation, garbage and drainage, unsafe housing sites and lack of health care (Rabinovitch, 1992; Rogerson, 1992; Dattatri, 1992; Mekvichai, 1992).

The principles for sustainable urban development are a concern for social and economic goals. According to Elkin, McLaren and Hillman (1991:2-3) there are four principles which require consideration: futurity, environment, equity and participation. The first two are the primary principles of sustainability: (1) Futurity. In any human activity, the effects of that activity on the ability of future generations to meet their needs and aspirations must be considered. (2) Environment. In any human activity, whether or not it takes place in economic markets, the full and true environmental costs of that activity must be taken into account. Although such assessment is difficult, a number of alternative approaches have been suggested (Pearce, Barbier and Markandya, 1990). The possibility of incorporating environmental values into traditional benefit-cost analysis is accepted despite the difficulty in applying monetary values to costs or benefits (Pezzey, 1989). According to the World Bank (1991:21), the major need in achieving this steps is to develop "application of existing methodology and approaches to concrete problems.

Combined with these principles of sustainability are the secondary principles of development: (3) Equity. The principle of futurity can also be described as inter-generational equity, that is, a commitment to equitable access to resources between generations. (4) Participation. The problem of economic development without democratic participation has been made manifest time after time. However, all these

principles are not only desirable in themselves but are essential to long term environmental sustainability.

Furthermore, Choguill (1993:3-5) mentions that it would seem that urban policies designed to achieve urban sustainability must meet four criteria. The first is that urban policies must be ecologically sustainable. Ecological sustainability suggests that urban activities should be capable of being carried out within the constraints of non-renewable and renewable natural resources, as well as within the absorptive capacity of the environment. The second is that such policies be economically sustainable. Economical sustainability suggests that certain criteria used in World Bank projects, especially in shelter projects, must be met, including affordability, accountability and replicability.

The third is that urban policy must be formulated in terms of its social sustainability. It is difficult to incorporate social aspects into the sustainability argument due to the fact that society does change over time and, it is argued, certain changes will take place within the structure of society as one moves toward the ideal of sustainable development. Nevertheless, to omit it leads to anarchy. The fourth is that urban policy should be judged in terms of its technical sustainability. This implies the use of technology which is appropriate to any given situation. It may not be the most advanced at any given time as it must not be beyond the comprehension of the users (Choguill, 1993).

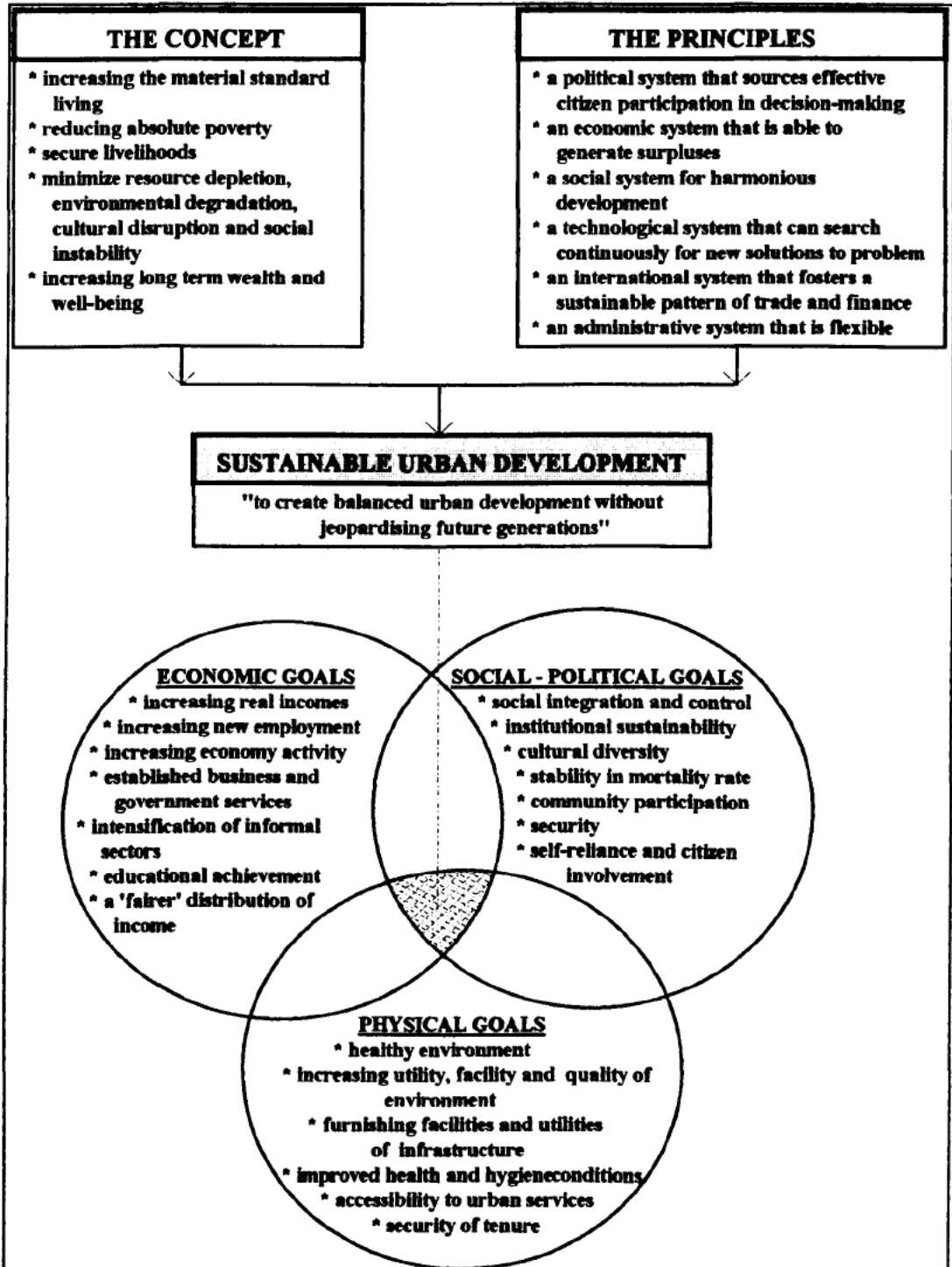
In summary, Diagram 2.2 seeks to illustrate the approach of sustainable urban development. The concept and principles of sustainable development in general can be taken as a priority to sustainable urban development which has objectives in physical, economic, social and political goals.

As Elkin, McLaren and Hilman states:

"sustainable urban development is a new goal. It requires the identification of environmental constraints to human activities in and related to cities and the adoption of methods designed to keep the results of our activities within

those constraints. These goals can be achieved through an appropriate mix of regulation and incentive" (1991:7).

Diagram 2.2
APPROACH TO SUSTAINABLE URBAN DEVELOPMENT



Source: Adopted from Barbier, (1987), p. 104, Figure 1 and Norgaard, (1992), p. 95, Figure 2.

However, they commented on sustainable urban development in developing countries as well:

"... Moreover, to address the problems of urban development in 'less developed countries' first would be to fall prey to cultural imperialism. We must therefore define the desirable course of development for the cities of the developed world. Further research is of course vital, to identify the paths of sustainable urban development for the 'less developed countries'. But it is already clear that, in the face of global environmental problems, the 'less developed countries' should be aiming to develop, not to where the 'developed countries' are now, but to where they and their cities should be" (ibid:10).

To be more specific in terms of sustainable urban development in the cities of developing country, it is useful to distinguish four aspects of the discussion: urbanisation, the urban development process, urban environmental problems and community participation.

2.4 Urbanisation in Developing Countries

The World has been urbanising rapidly for a long time and the indications are that this is likely to continue although at a slower rate than before. Rural-urban migration and rapid urban growth have caused serious problems to urban development and urban planning in developing countries. The trend in urban concentration and the growth of large cities poses a major challenge to developing countries. By the year 2000, over 45 percent of the 5.1 billion population of the developing countries will be living in urban areas (Oberai, 1993:58).

2.4.1 Patterns of Urbanisation

According to Jakobson and Prakash (1971:15) urbanisation, by whatever definition, is a phenomenon describing a process of change in populations due to changing conditions in society at large.

Rapid urbanisation in the developing countries during the past few decades has widened the gap of economic opportunities between urban and rural areas. Urban

population in developing countries has increased more rapidly than the total population because of biases in the industrial policies which have given incentives to such industrial and economic activities in urban areas rather than rural (World Bank, 1990).

The rate of urbanisation is much greater than the growth rate of the population in most developing countries. This difference is vividly portrayed when one contrasts urbanisation patterns in the developing countries with those in the developed countries.

World Bank statistics (1990) show that 45 percent of the world's population now live in urban areas. The developing world is quickly becoming an urban world. In 1950, only 285 million people, or 16 percent of the developing world's population, resided in urban places. In 1990 this number had multiplied fivefold to 1.5 billion urban residents, making up 37 percent of the total population in developing countries. The UN projects that during the next 35 years the urban population of developing countries will triple again, reaching 4.4 billion in 2025 (Kasarda and Parnell, 1993).

Table 2.1 Rate of Urban Population Growth in Group of Countries by Income

COUNTRY GROUPS	Urban Population as a percentage total population		Average annual growth in urban population (percent)	
	1965	1988	1965-1988	1980-1988
Low Income	17	35	3.5	5.2
Lower Middle Income	40	56	4.0	3.8
Upper Middle Income	45	62	3.6	3.2
High Income	71	78	1.4	0.8

Source : World Development Report 1990, World Bank, pp. 238 and 239.

It is explicit from table 2.1 that low-income countries today are adding to their urban population more rapidly than the high income countries. However the rate at which this is happening seems to vary with the rate of economic growth.

The 'low-income' country groups¹ between 1965 - 1988, showed the highest urbanisation rate, an average of 4.3 percent per year². The high-income countries, examples of which are United States, Japan, United Kingdom and Saudi Arabia, have a higher economic growth but the lowest rates of urban population growth, 1.1 percent per year.

Urbanisation in Asia is relatively low in terms of the proportion of the population residing in urban areas, especially when compared with Western nations. In the case of Asia, roughly 30 percent of the Asian population is urbanised. The range varies from 2.2 percent in Nepal to countries and areas which are totally urbanised, such as Hong Kong and Singapore. Other nations notable for their degree of urbanisation are Iran (38.1 percent), the Republic of Korea (42.7 percent) and Japan (68 percent) (UNCHS, 1987:21). It should be noted that these figures may be deceptive due to inconsistencies in the definition of an urban area. Nevertheless, the continent is generally viewed as an area with a relatively low level of urban growth.

Therefore, among the consequences of rapid and large scale urbanisation has been a rising demand for greater quantities of land. Residents need living space. Economic activities such as industry require sites and space on which to expand. Indeed, providing this land and the necessary services and infrastructure are primarily the responsibilities of the government, and this embraces social housing.

2.4.2 Factors Influencing the Urbanisation Process

Urbanisation has been described as both a demographic transformation of a population as well as a transformation in life styles. Three factors interact to determine the rate of urban population increases. These are the birth rate, the death rate and the rate of migration. Of the three, migration, and specifically urban-rural migration, has been and will continue to be the primary variable influencing urban growth. In fact, one theory of the urbanisation process is entirely concerned with the 'push' and 'pull' factors involved in the decision to relocate (UNCHS, 1987; Todaro, 1989).

In reality, there is considerable evidence to support this belief, as for instance in Africa a depression in the rural economy has triggered an out-migration from the countryside to urban areas where it is believed that there will be greater economic opportunities. These migrants are simultaneously pushed and pulled to cities because

rural conditions are unsatisfactory and because of the economic attractiveness of the urban areas (Todaro, 1989).

The other fundamental variables affecting urban population growth are birth and death rates. There is wide range of differences in demographic changes between low-income country and high-income country groups.

Table 2.2 shows the crude birth rates and crude death rates which indicate respectively the number of live births and deaths occurring per thousand population in a year. Crude birth rates tend to decline relative to rural birth rates with migration to the city. However, crude birth rates, though tending to decline over the long run, are not totally stable as they can change in rather unpredictable fashion from time to time. Crude death or mortality rates have steadily declined throughout the world, though at differential rates.

Table 2.2 Rate of Demographic Trends and Fertility in Groups of Countries by Income

Country Groups	Crude Birth rate per thousand		Crude Death rate per thousand		Total fertility rate	
	1965	1988	1965	1988	1965	1988
Low - Income	42	31	16	10	6.3	4.0
Middle - Income	38	29	13	8	5.6	3.8
Upper - Income	31	26	12	8	4.5	3.5
High - Income	19	14	10	9	2.8	1.8

Source : World Development Report 1990, World Bank, p.230.

Henderson (1988:64-65) implies that the increasing size of the urban population coupled with industrialisation, higher per capita income, improvements in communications, changes in construction technology, public health and safety improvements and the characteristics of the migrants, have all interacted to modify substantially the structure of cities, change individual values and public responsibilities, and these in turn have influenced the role played by urban land. Specifically, these aspects of the urbanisation process have changed the nature of demand for land both quantitatively and qualitatively.

Therefore, urbanisation in the experience of the developed countries was both a cause and a consequence of higher living standards. In contrast, urbanisation in developing countries has largely taken place as a result of the push of rural inhabitants into urban areas.

2.5 Urban Development Process

Urban development offers the promise of economic growth and economic development. As urban areas have grown, they have become increasingly important centres of industry, commerce, and trade. They have attracted large capital investments and have offered job opportunities and higher incomes to people who live there.

However, most of the developing countries have experienced an unbalanced urban development process. This is because they have concentrated on overall growth and neglected regional disparities, such as income differentials within the national space, variable urban growth among regions, pockets of poverty, etc. (Taylor, 1982; Choguill, 1985). Therefore, to overcome this situation, many developing countries paid more attention to urban development and the use of urban planning as an essential tool to achieve more balanced national development (UNCHS, 1987; Hardoy, Mitlin and Satterthwaite, 1992; Choguill, 1993).

2.5.1 Urban Growth

Characteristics of urban growth³ and its impact on the settlements will be examined in this section. The rapid growth of urban areas has produced and is still producing an enormous socio-economic transformation which has significant implications for national, cultural, social and economic development, especially in the developing countries. This progress has serious consequences in that present urbanisation trends and urban growth are characterised by the expansion of built up areas into the surrounding rural areas of the city.

In most developing countries, the infrastructure, the technology, and the physical facilities needed for rapid industrialisation have been located in large urban centres (Rondinelli, 1987). However, recently, most Third World nations have experienced a very rapid growth in their urban population without the needed expansion in public provision. Therefore, economic activities tend to concentrate in large urban centres and favour certain geographic areas (Henderson, 1988).

In many cases, this growth strategy in developing countries has resulted in regional population and income disparities in the nation, especially between the large and primate cities on one hand and rest of the country on the other. As Choguill (1982) has noted that "there is a general feeling that once a country begins on the path to development, the urban structure is transformed from one approaching a degree of uniformity in population size into a system dominated by a primate city". Hardoy and Satterthwaite (1984) have highlighted that one of the reasons for rapid urban growth in certain urban centres, and very often of economic stagnation, is the prevailing pattern of industrial development in most of Third World countries.

Furthermore, in most of the developing countries, income levels and general standards of living tend to be higher in cities than in rural areas, and the concentration of most of social services, facilities and production activities in large cities give greater opportunities to rural people who search for a better life for themselves and their children. Therefore, migrants from rural areas and from small cities have been drawn to the large and primate cities especially those migrants who are skilled and educated.

However, there are some negative effects and some costs associated with concentration of economic activities and population in the large urban areas. One, for instance, is a lack of housing and access to urban services, congestion and environmental deterioration (Alonso, 1968; Mathur, 1981; Taylor, 1982; Choguill, 1987; Hansen, 1990).

According to Alonso (1968) most of the developing countries have suffered from 'gigantism' of the principal cities which has been called 'primacy'. He added that this

phenomenon is associated with the early stages of development and the per capita costs particularly for infrastructure investment such as housing, services, and so on have risen after a certain urban size.

Hansen (1990) mentioned that concentration of population in large congested cities has created severe urban management problems and extremely difficult conditions for the residents and especially the poor in such places.

According to Mathur (1981) there are three problems that have arisen in urban growth in developing countries. First, the increase in the urban population is extremely unbalanced, large cities have grown faster than the medium and small-sized centres. Second, the urbanisation process has created social problems such as crime, delinquency, prostitution, slums and congestion, noise, deteriorating environment and pollution. Third, the costs of maintaining the basic services have been rising at an unusually high rate.

Furthermore, Ramachandran (1989:1) stated that "in fact, the most striking thing about the process of urban growth in the developing countries is not the official new development, but the spontaneous settlements, the squatter or shanty towns which have sprung up outside and within all large Asian, African and Latin American cities".

However, the rate of urban growth is significant, especially in the countries that have a smaller proportion of their population in urban areas. In such countries as Afghanistan, the Philippines, the Republic of Korea and Sri Lanka, urban growth is double that of the growth rate of the national population as a whole. Urban growth is high or very high in all countries and areas except the three which are distinctly urbanised: Hong Kong, Japan, and Singapore (World Bank, 1990:238-239).

2.5.2 The Demand for Urban Land

UNCHS (1987) considers land as the starting point of all settlement development which provides the physical location for shelter, commerce, industries, transport systems, roads, social infrastructure and other public services. It is a fact that most

developing countries are not prepared for facing the impact of urbanisation and expansion of their settlements which results in increasing demand for land.

The demand for urban land largely depends upon the following factors: the growth and changing density of the urban population; the increase in individual and collective investment resources; technology changes; changes in urban land uses; and changes in levels of living. To these economic and social factors, can be added the demand for urban land by certain income groups as a hedge against inflation. Land prices reflect the interrelationship between the supply of land and the forces of demand.

However, the demand for urban land is increasing at a vary rapid rate in virtually every urban centre throughout the world. There are two dimensions: first, the demand for land to meet individual needs and second, the demand for land to meet the needs of society. The problem is to balance these two dimensions. The manifestation of increasing demand for, and decreasing supply of, land is reflected in free market economies by extraordinarily high land prices, especially in the central cities. (United Nations, 1975:33).

Furthermore, the demand for urban land is variously influenced by the level of development of a country, region or urban area, and the characteristics of the urbanisation process. There are five important factors influencing variations in the demand for urban land area. First, the rate at which a population is urbanising and the distribution of the urban population among human settlements. Second, the nature and types of activities occurring within a city. Third, the intensity or density of land usage for various activities. Fourth, individual and collective investment capacities. Fifth, the techniques and technology used in town building.

Doebele (1987:113), also made an observation that the demand for urban land in developing countries is extremely high compared to developed countries. The overall demand for urban land in developing countries is expected to be more than double its present level, by the year 2000. However, the most significant fact is not that future

demand is so high but that it will occur in the face of very different conditions for supplying urban land than those that have generally prevailed in the past.

While many land analysts seem to agree that in theory at least there is no absolute shortage of land to accommodate urban growth, there are both technical and artificial shortages. These are the problems of urban areas. A technical shortage exists when land in its present condition is not suitable for urban areas (Doebele, 1987; Dunkerley, 1983; Clarke, 1989; Koenigsberger and Groak, 1980; and Lichfield and Drabkin, 1980).

The density of settlement of both population and activities, which is a characteristic of the urbanisation process, has been associated with increases in the demand for land. Density levels can directly influence the amount of land needed, depending upon the social and economic conditions which establish acceptable or necessary density standards. In the developing countries, the majority of cities have reached extremely high densities in both residential and employment areas, especially in the central cities.

2.5.3 The Demand for Urban Services

One of the most crucial challenges which developing countries will face over the next decade will be meeting the growing demand for basic social and physical infrastructure facilities in cities. The rapid pace of urbanisation and high concentration of the poor in large cities has increased the demand for urban services but the supply of shelter and basic urban services has not kept pace with the demand.

According to Rondinelli and Cheema (1988: 1-3) there are a number of common themes which run through the urban services in developing countries. First, the capacity of national and urban governments to provide even minimal levels of basic services has been outpaced by the rapidity of urban growth. The solution requires not only money, but also political will and administrative capability.

A second theme is that with the increasing concentration of the poor in cities, the ability of governments in developing countries to provide urban services may become a primary indicator of their ability to promote development in the closing years of the twentieth century. The focus of development strategies will shift from problems of rural poverty to those of urban poverty.

Third, given the rapid rate of urbanisation and the limited resources available to national and municipal governments in developing countries, conventional means of providing services to the urban poor will simply not be adequate.

Rondinelli (1988:23) examines the trends in urban population growth in developing countries, noting that the urban services problem stems in large part from the high rates of population increase in Third World cities. He emphasises that about 2.1 billion people will be living in urban places in developing countries and that nearly 245 million poor people will be added to their populations by the end of the 1990s. However, he argues that providing urban services is a complex and uncertain problem because simple, direct and universal solutions to it do not exist.

Many observers and authors have explored this critical problem in developing countries: how to provide at least minimum, basic, levels of service for rapidly growing urban populations, and especially for the poor, for whom access to urban services is essential to raise their standards of living, productivity and income. Nearly all of the research concludes that the provision of basic urban services has not kept pace with population growth. Definitely, in many cities, the overall quality and coverage of public services and facilities has deteriorated (Rondinelli, 1988; Hardoy and Satterthwaite, 1989; McAuslan, 1985; Drakakis-Smith, 1987).

Clearly, the strain on basic urban services in developing countries' cities arises not only from limited financial resources and administrative capacity of central and municipal governments to provide greater coverage, but also from broader problems of rural to urban migration, inadequate employment opportunities in both rural areas and cities, and the continued concentration of the poor in the largest urban centres.

2.6 Urban Environmental Problems

Cities can provide healthy and stimulating environments for their inhabitants without imposing unsustainable demands on natural resources and ecosystems. According to Hardoy, Mitlin and Satterthwaite (1992:15) a successful city in this sense, is one which meets multiple goals. Such goals include healthy living and working environments for the inhabitants: water supply, provision for sanitation and garbage disposal, drains, paved roads and other forms of infrastructure and services essential for health and for a prosperous economic base; and a sustainable relationship between the demands of consumers and businesses and the resources and ecosystems on which they draw.

However, rapid urban change in itself need not produce serious environmental problems. Environmental problems in cities become particularly serious where there is a rapid expansion in urban population with little or no consideration for the environmental implications. In most developing countries, urban populations have expanded without an associated expansion in the services and facilities essential for an adequate and healthy urban environment (Hardoy et.al., 1990; Kassarda and Parnell, 1993; Smith and Lee, 1993).

The reality is that the urban population in developing countries live and work in very poor conditions. As Hardoy states (1992:38) in most cities, between one-third and two-thirds of the population live in inadequate housing units. He adds that these people live in unsafe structures without adequate protection from the elements, sufficient space, water supplies, provision to remove excreta, household liquid and solid wastes, drainage, and all-weather roads.

There are three factors which contribute to a poor urban environment. First, is the presence in the human environment of pathogens because of a lack of basic infrastructure and services such as sewers, drains or services to collect solid and liquid wastes and safely dispose of them. Second, is a lack of a safe and sufficient water

supply. Third, is overcrowded, cramped living conditions which increase the risk of transmission of airborne infections and increase the risk of accidents.

Therefore, the following section will examine the three factors above.

2.6.1 Urban Infrastructure and Services Problems

Developing countries throughout the world are facing increasing demands for urban infrastructure and services. However, a lack of basic infrastructure and services can result in many debilitating and easily prevented diseases becoming endemic among poorer household in urban areas. Cairncross and Ouano (1990) assumed that many low-income communities in urban areas of the Third World consider storm water drainage to be their most urgent need as far as urban infrastructure is concerned. This is partly because their houses are often built on unsuitable land.

Removing and safely disposing of excreta and waste water is a critical environmental health need. No drains or sewers to take away waste water and rain water can lead to water logged soil and stagnant pools which can transmit diseases. Pools of standing water can convey enteric diseases and inadequate or no drainage often means damp walls and living environments.

Most cities in Africa and many in Asia have no sewers at all. This is not only in the smaller cities, many major cities with a million or more inhabitants have no sewers. Rivers, streams, canal and ditches are where most human excrement and waste water ends up, untreated. The majority of people in major cities such as Jakarta, Calcutta, Manila, Bangkok, Madras, Kuala-Lumpur, Curitiba, Kampala and Khartoum live in housing lacking adequate infrastructure and services (Satterthwaite, 1992; Mekvichai, 1992; Benavides, 1992; Rabinovitch, 1992; Dattatri, 1992; Kasarda and Parnell, 1993). For instance, in the case of Indonesia, there is still no water-borne sewage system in all cities and towns, so much of the population uses the canals for bathing, washing clothes and defecation. Therefore, in most Third World nations, both national and

urban governments have failed to ensure adequate provision for urban infrastructure and services. As Cairncross et.al. commented:

"In recent decades, most Third World nations have experienced a very rapid growth in their urban populations without the needed expansion in the public provision. The result is that in virtually every urban centre - from the large cities and metropolitan areas to regional centres and small market towns - many people live in neighbourhoods with little or no provision of the infrastructure, services and facilities that are essential for health. In addition, many live in cramped, overcrowded dwellings such as tenements, cheap boarding houses or shelters built on illegally occupied or sub-divided land" (1990:1).

One reason for so little government action is that the health impacts of the most serious environmental problems are largely confined to poorer groups. It is common for the residential areas of middle- and upper-income groups and the main commercial and industrial concerns in a city to receive good quality water supplies, sewers, drains, electricity supplies and regular services to remove solid wastes while 30 percent or more of the city population in the poorer residential areas receive little or nothing. The middle- and upper-income households are often subsidised in the publicly provided infrastructure and services they receive, since they are not charged a price which reflects the total cost of supply (Hardoy, Mitlin, Satterthwaite, 1992:129).

2.6.2 Urban Water Supply Problems

Many health problems are linked to water because of its quality, the quantity available, the ease with which it can be obtained and the provisions made for its removal, once used. Most urban dwellers in developing countries have limited access to clean water. A small minority have water piped into their homes while rather more have to collect water from a stand-pipe nearby. Consequently, many urban residences are served by traditional supply systems, such as local wells or groundwater pumping or surface sources.

Cairncross (1990:109) emphasised the importance of water quality and quantity in urban areas. People who are not served with safe water are obliged to use water from streams and other surface sources which in urban areas that are often little more

than open sewers, or to purchase water from insanitary vendors. It is well known that contaminated drinking water can cause water-borne epidemic of these diseases.

Furthermore, he identified that in 1975, it was estimated that only 74 percent of the Third World's urban population had access to a safe water supply. Ten years later, in 1985, half way through the International Water Decade, the number of people served had increased by more than 300 million, an increase of over 70 percent. However, the towns and cities of the Third World had grown so rapidly that 25 percent of their population still lacked adequate access to safe water. In fact, 100 million more people were unserved in 1985 than in 1975 (ibid:1).

For instance, in Jakarta, less than a third of the population have direct connections to a piped water system; around 30 percent depend solely on water vendors whose prices per litre of water are up to 50 times that paid by households served by the municipal water company; and others depend on local wells, and surface sources (Darrundono, 1988:72).

Research in Asia by Sivaramakrishnan and Green (1986) revealed the condition of inadequacies in Asian cities for water supply and sanitation, such as in Bangkok (Thailand), Bombay, Calcutta and Madras (India), Karachi (Pakistan), Jakarta (Indonesia), Manila (Philippine), and Colombo (Sri Lanka). Similarly, many researchers discovered human environmental problems in Africa and other Third World cities, such as Accra - Ghana (Songsore, 1992), Dar Es Salaam - Tanzania (Kulaba, 1989), Kampala - Uganda (UNEP, 1988), Khartoum - the Sudan (El Sammani et.al., 1989). Similarly, Hardoy et.al., (1992) summarised all urban environmental problems in Third World cities.

Therefore, the quantity of water available to a household and the price which has to be paid can be as important to a family's health as its quality. However, the combined effects of population growth, industrialisation, and urbanisation on water supplies lead to four environmental risks: limited quantity of clean water for households; the reliability of these supplies; the increases of lowland subsidence and

flooding; and expanded ground and surface water pollution (Smith and Lee, 1993:170-174).

2.6.3 The Complexity of Housing Problems

A better understanding of links between housing and health demands an understanding of the housing problem which goes beyond the inaccurate stereotype of the poor living in slums and squatter settlements. One of the results of the high rate of urban growth in human settlements⁴ and the astounding by-products of rapid urbanisation in most developing countries is the existence of slum and squatter settlements.

Since the end of World War II, cities in the Third World have been inundated with millions of people who became squatters and slum dwellers. At first, these were mostly migrants from the villages, but lately the growth in their numbers has been due to natural birth rates exceeding death rates. The urban poor have shown a tremendous capacity to survive. With only rudimentary skills, they have built their own houses. They have used old lumber, flattened oil drums, rusty galvanised iron sheets, cardboard, plastics, and other discarded materials in their urban environment. Against the forces of government, they have availed themselves of basic services.

Squatter settlements are the most familiar type of non-conventional housing constructed by the urban poor - largely because they tend to be a very visible element in the urban landscapes of the Third World (Drakakis-Smith, 1987:42). Despite this apparent familiarity, there is little consensus on the definition of squatting (Hardoy and Satterthwaite, 1989; Turner, 1976; UN, 1976; UNCHS, 1987). Despite the simple definition that squatting is the occupation of land to which no legal right is held, the United Nations goes considerably further defining it as (UNCHS, 1987:15):

"Squatter settlements are also referred to as spontaneous settlements, in reference to the absence of governmental aid and control; uncontrolled settlements, in reference to their lack of regulation; shantytowns, in reference to the poor quality of construction; popular settlements, in recognition of the fact that they are inhabited by low-income people;

marginal settlements, in reference to the role their inhabitants are assumed to play in urban society and their location within city; and transitional settlements, as an expression of a positive view suggesting that they can, over time, become consolidated and permanent settlements".

Nor is there a straightforward legal definition of a slum. This form of low-income housing is much more difficult to identify than squatter settlements (Drakakis-Smith, 1981:83). Simplistically a slum is sub-standard housing. Most urban authorities do have some operational rules by which houses are classified as substandard but the concept of habitability differs for virtually each individual and makes aggregate comparison of housing standards a somewhat futile exercise. Clinard (1966:3) wrote the following about slum settlement:

"Slums vary from one type to another, but certain general patterns of slum life are universal. Although the slum is characterised by inadequate housing, deficient facilities, overcrowding, and congestion, it involves more than these elements. Sociologically, it is a way of life, a subculture with a set of norms and values, which is reflected in poor sanitation and health practices, deviant behaviour, and characteristic attributes of apathy and social isolation".

Therefore, both slums and squatter settlements usually represent poor housing, but there are certain distinctions. Slum housing is frequently owner-occupied with legal status. However, sometimes slum housing requires rent and is overcrowded - sometimes 10 or more people are crammed into one small room. But slum housing usually has at least some basic, though inadequate, services such as a shared bathroom, water and electricity, and close proximity to work due to their centre city locations. Housing in squatter settlements is illegal in two senses: land is occupied illegally, and the site and the building are developed and built illegally - contrary to zoning regulations (i.e. the use to which land can be put and often the number of units allowed per hectare), sub-division regulations (i.e. the standards needed for access roads and paths, water supply, drainage and often the minimum size of plot allowed) and building regulations. Squatter settlements have grown on sites unsuitable for conventional development and are often located in inaccessible areas such as flood plains, swamps, and steep hillsides.

From any point of view, the living conditions of the 2.5 thousand million who live in the less developed regions of the world are poor: housing structures are inadequate and overcrowded; light and water supplies are adequate only for small proportions of their urban populations; sanitation services are poor or non-existent; health and educational services for low-income populations, which constitute 70-80 percent of the developing countries, are negligible (UN, 1976).

After almost three decades of trying to eradicate slum and squatter areas, most governments in developing countries have now adopted a more conciliatory and accommodating attitude (Laquian, 1983; World Bank, 1983; Choguill, 1991). This change has brought about remarkable creativity in official efforts to provide housing and basic urban services to the urban poor and in ways in which the urban poor have provided themselves with sites, shelter, and services. The ideas of mutual aid, self-help, community action, core housing, and progressive development were derived from the actual practices of squatter and slum dwellers.

However, UNCHS (1987:16-18) mentioned that the squatter and the slum dweller are not necessarily 'radicals', but this does not mean to say that they are incapable of becoming a radical force. A violent reaction to persistent poverty cannot be discounted simply because it has not yet occurred. Slum and squatter dwellers may have the resources, skills, and personal motivations to provide adequate shelter for themselves. When slum dwellers are given resources or when squatters are given security of tenure, they are able to build their own houses and improve them as their life situation improves. Therefore, slum and squatter dweller can improve their settlements when conditions are favourable, however, without significant changes in governmental attitudes any policies poverty may increase and give way to destitution - trends that will curtail opportunities for consolidation.

Furthermore, the slum and squatter settlements are not an isolated and temporary phenomenon; it is an essential link between rural and urban development forces. Squatter settlements are the result of a vast network of social and economic forces,

many of which are determined by public authorities without due consideration for their consequences.

Statistics for 1980 showed that slum and squatter settlements already constituted a large proportion of the urban populations in developing countries (UN, 1987:77). In Africa, slum and squatter settlements constituted 85 percent of Addis Ababa(Ethiopia), 33 percent of Nairobi (Kenya), 50 percent of Lusaka (Zambia). In Latin America, slum and squatter settlements form 32 percent of Sao Paulo (Brazil), 59 percent of Bogota (Columbia), 40 percent of Mexico City, 34 percent of Caracas (Venezuela), 33 percent of Lima (Peru). In Asia, slum and squatter settlements form 26 percent of Jakarta (Indonesia), 37 percent of Karachi (Pakistan), and 40 percent of Manila (Philippines).

To sum up, there are three generalisations relating both to housing and health which are valid for the low-income majority in virtually all Third World cities (Cairncross et.al., 1990:18). First, it is the fact that the accommodation in which they live is inadequate in protecting them from health risks. Second, it is that through lack of income they have very little chance of obtaining a more adequate house, with sufficient space, security, services and facilities. Third, almost as universal as the previous two, is insecure tenure.

2.7 Community Participation

A fundamental objective of urban development is to encourage and organise community participation. The importance of understanding community participation is now widely recognised, both conceptually in terms of the role that intended beneficiaries and local community organisations can, and do play in the design and implementation of urban projects (Turner, 1976; Schumacher, 1973).

This section will discuss the meaning and importance of community participation in social and economic characteristics and examine the condition in developing countries.

2.7.1 Community Participation in meaning and importance

No clear consensus exists as to what is meant by community participation with the diversity of definitions reflecting the ideological range of interpretations of development and different approaches to planning (Moser, 1986).

In terms of human settlements, UNCHS (1986) has identified community participation as the importance of participation in housing projects.

"It is clearly in the interests of governments to involve their clients in designing and creating support programmes and in sharing the responsibility for short-term and long-term outcomes of development efforts. In practical terms community participation directly benefits agencies such as social welfare departments, planning offices and local housing authorities, because it broadens their resources base in physical, financial and most important human terms...it distributes or shares responsibility for the design, management and execution of programmes and projects. Through community participation, governments, despite limited outlays in per capita support, can assist a far greater number of the needy than can be reached by current conventional programmes" (UNCHS, 1986:4).

However, from their participation programme, UNCHS identify participation in somewhat different terms and state that "community participation in the execution of low-income housing projects implies the voluntary and democratic involvement of the urban poor in carrying out these project activities" (ibid:1).

Furthermore, UNCHS made three arguments that are employed to advocate the incorporation of participation in the execution of the projects. First, participation is an end in itself. People have the right and duty to participate in the execution of projects such as planning, implementation and management, which profoundly affect their lives. Second, participation is a means to improve project results. Even though people participate in the execution of projects by contributing their ingenuity, skills and other untapped resources, more people can benefit, implementation is facilitated, and the outcomes responds better to the needs and priorities of the beneficiaries.

Third, participation is a self generating activity which stimulates people to seek participation in other spheres of life. Participation builds up a self-reliant and co-

operative spirit in communities; it is a learning process whereby people become capable of identifying and dealing actively with their problem (UNCHS, 1984:6).

In this statement three different objectives of participation are linked together. The first argument links participation to empowerment, the second to efficiency and the third to a welfare concern to include communities in the development process.

In the context of development, Paul (1986:3-5) stated that community participation refers to an active process whereby beneficiaries influence the direction and execution of development projects rather than merely receiving a share of project benefits. According to his research, the objectives of community participation are empowerment, building beneficiary capacity, increasing project effectiveness, improving project efficiency and project cost sharing.

However, in terms of what participation means, Turner (1976:127-8) argued that "participation does not necessarily imply self-help home building by undernourished and overworked people without credit, with inadequate tools and poor materials. ...The central issue is that of control or the power to decide: Who actually does what follows from, and is therefore secondary to the initial directives. This is what citizen participation is really all about: whose participation in whose decision?".

2.7.2 Community Participation in Urban Planning

Having identified at a general level some of the important issues relating to the meaning of community participation, it is now necessary to examine more specifically its role in the context of urban planning.

Over the past two decades a range of organisations involved in urban projects have included community participation as a project component. These have included institutions such as national and local government, international donor agencies, academic institutions, political organisations and charity and religious groups.

However, in urban areas where the community may vary in size from street to block to neighbourhood level this causes two particular problems. First, it assumes

that projects are for homeowners exclusively, and consequently tends to exclude renters and squatters, who are ignored in any community level decision making. Second, while the distinction is often made between local leaders, neighbourhood organisations and political parties, whose involved in community participation, further disaggregation is less common. This may occur at the family level, with reference to income groups, for instance when formulating eligibility criteria for housing projects.

In order to understand the importance of community participation in the urban context, it is appropriate to examine how it has developed historically. Firstly, on the basis that better living conditions would reduce revolutionary enthusiasm among the poor, the programme was first and foremost consumption oriented, introducing services such as electricity, water and drainage. In Latin American countries this resulted as a consequently for many urban poor with their first important experience of community participation (Moser, 1986:10).

Secondly, simultaneously with 'top down' community participation programmes, by the late 1960's 'bottom up' community participation was visibly evident in urban areas. In cities as diverse as Lima, Bangkok, Jakarta, Lagos and Ankara, the failure of so-called low-cost conventional housing programmes to meet the economic needs or requirements of the low-income population, resulted in people taking responsibility for their own shelter provision. Acting both individually and in highly organised groups, squatting resulted in the occupation of vacant land, and the construction of shelter without the permission of the authorities or titles to the land. This proved the ability and willingness of the poor to provide their own housing solutions through community participation.

Thirdly, by the 1970's many developing country governments, together with international policy makers, slowly began to recognise the potential of utilising squatter settlements and the resources of the poor more efficiently than before. Therefore the radical changes in urban projects, resulting in both site and services and upgrading as the two dominant forms of housing in many urban areas, were based on the principle of

the self-build and community participation. In this way housing provided the entry point to production through a diversity of self-help projects (Turner, 1979).

Therefore, community participation is evident in urban projects, with the main emphasis particularly on consumption, production and infrastructural related issues. However, it is important to identify the implications of different types of projects for the nature of community participation. It is astonishing that production oriented projects cannot be undertaken without the participation of the producers, while infrastructural projects can be undertaken without the participation of the consumers.

According to Laquian (1983), the most important factor in the success or failure of such programmes was the motivation of the housing agency in encouraging community participation. A housing agency that truly desires to elicit community participation must sincerely believe that what the community contribution makes a real difference in the outcome of the project.

Deneke and Silva (1982) mention that a community participation was successful on the level of the housing projects. This advocated specific housing strategies to bring down the supply cost of housing, such as sites and services and upgrading of unauthorised areas, in order to ensure rapid improvement in access to shelter, infrastructure and facilities for the 40 percent of poorest of the population.

Therefore, the experience of World Bank projects shows that community participation is appropriate when one or more of the following conditions are present. First, the objective of the project is empowerment of the people and capacity building. Second, the design of the project services calls for interaction among beneficiaries as a basis for identifying their needs and preferences. Third, the implementation of the project demands frequent dialogue and negotiation among beneficiaries. Fourth, beneficiaries rather than an already overloaded or weak bureaucracy are better able to manage a part of the project operations (Paul, 1986).

2.8 Summary

This chapter has reviewed various concepts related to sustainable development and sustainable urban development. It has been the main concern of various nations to improve the living and human well-being of their people. Environment and natural resources degradation are increasingly serious problems in the developing countries particularly in urban areas. The problems are serious with even more serious implications in the future, and the attitude of developing countries has shown a willingness to find a solution to them.

The relationship between development goals and ecological sustainability are also highlighted in this chapter with the help of theories which can explain the concept of sustainable development. Understanding the relationship which exists between development goals and ecological sustainability is believed to be essential for the analysis of the approach to sustainable urban development.

Urbanisation, urban development process, urban environmental and community participation are the examples of development and sustainability which involves consideration of the wider aspects that are integrated in the sustainable urban development. In the following chapters we will see how and why the government of Indonesia has adopted the urban development programme as a means of policy in Long-Term Development.

END NOTES.

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- ¹ The terms of low-income, lower middle income, upper middle, and high income country groups are references to data collected by the World Bank in World Development Report 1990.
 - ² From the average of annual compound growth in urban population share between period of 1965-1980 and 1980-1988.
 - ³ Urban Growth is the growth in the population living in urban centres. This is not the same as urbanisation because if the rural population and urban population are both growing at the same rate, there is urban growth but not necessarily growth in the proportion of people living in urban centres (Hardoy and Satterthwaite, 1989).
 - ⁴ Human settlements are, by definition, where man lives in a community. Whether the community is rural or urban, its development involves a transformation of the natural environment into a man-made environment (UN, 1976:3).



CHAPTER 3

**GENERAL BACKGROUND OF
URBAN DEVELOPMENT PROGRAMME
IN INDONESIA**

CHAPTER THREE

GENERAL BACKGROUND OF URBAN DEVELOPMENT PROGRAMME IN INDONESIA

3.1 Introduction

The purpose of this chapter is to examine the extent of the urban development programme in Indonesia with a brief account of the Indonesian geographical and socio-economic situation. In the following sections, some dimensions of urban settlement will be described, including the significance of kampungs as a type of urban settlements. The last section will discuss the KIP as an urban upgrading programme. This will provide a sufficient background for further analysis in the next chapter.

3.2 General Background of Indonesia

The state of Indonesia, officially known as the "**Republic of Indonesia**", has existed since the Declaration of Independence in 1945. The name 'Indonesia' is composed of the two Greek words: 'Indos' meaning India and 'Nesos' meaning islands.

3.2.1 Geographical Area

Indonesia is the largest archipelago in the world which consists of five main islands and about 30 smaller archipelagos, totalling some 17,508 islands and islets of which about 6,000 are inhabited (Central Bureau of Statistics, 1991).

The territory of the Republic of Indonesia stretches from 6°8' north latitude to 11°15' south latitude, and from 94°45' to 141°65' east longitude. The estimated area of the Republic of Indonesia is 5,193,250 square kilometres, which consists of a land territory of 2,027,087 square kilometres and a sea territory of 3,166,163 square kilometres (Department of Information, 1990:9).

The main landmasses are Java, Sumatera, Kalimantan and Sulawesi, which are all part of the Greater Sunda Group, and Irian Jaya, which is part of New Guinea, while a few smaller islands like Bali and Lombok in the Lesser Sunda Group are major population centres despite their relatively small size. The major islands are characterised by rugged volcanic mountains covered by dense tropical forest that slope down to often swampy coastal plains. Around two-thirds of Indonesia is covered with forest.

Indonesia's climate and weather is characterised by an equatorial double rainy season. Its position on the equator and island structure give it high and relatively constant temperatures. The dry season from June to September is influenced by the Australian continental air masses passing over oceans. Most areas receive heavy rainfall throughout the year with a rainy season from December to March which is influenced by the Asian continental and Pacific Ocean air masses passing over oceans. The air contains vapour and brings rain to Indonesia.

3.2.2 The Administrative Structure of Government

The administrative structure of Indonesia tends to conform to the insular nature of those regions making up an archipelagian country. They are based on natural boundaries, that is, to those parts of the country separated from one another by the sea - the islands or group of islands. A second factor influencing the administrative structure is the varied population density. Third, there is a legacy from the period of colonial development in the 19th century, which characterised the constitutional and

administrative structure of that time. Fourth, there was the presidential phase in the country's development between President Sukarno, which was full of suffering, and President Suharto which has brought about political stability and an economic upswing, a 'Government of New Order'.

Therefore, the structure of the Indonesian state is not federal but unitary. The Unitary State of the Republic of Indonesia is subdivided into 27 Provinces (**Propinsi**), 241 Districts or Regencies (**Kabupaten**), 55 self governing Municipalities (**Kotamadya**), 3,625 Sub-districts (**Kecamatan**), and 67,033 Villages (**Desa or Kelurahan**). Figure 3.1 shows the location of provinces and provincial capitals. Three out of the 27 provinces are special territories, namely those of DKI (*Daerah Khusus Ibukota*) Jakarta (West Java), DI (*Daerah Istimewa*) Yogyakarta (Central Java) and DI Aceh (North Sumatera) (Central Bureau Statistics, 1990:3).

Figure 3.1

Indonesia - Provinces and Provincial Capitals



A province is headed by a **gubernur** (governor), and a **kabupaten** (district), **kota madya**, **kecamatan** and **kelurahan/desa** respectively by a **bupati** (regent), a **walikota** (mayor), a **camat** and **lurah**. Beside these administrative units, the provincial capitals are the main centres for the implementation of the administrative regulations laid down by the central government based on the policy of decentralisation.

In addition, these capitals are equipped with branch offices of all government ministerial departments in accordance with the centralised sectional administrative system, such as Public Works, Public Health, Education and Culture, Animal Husbandry, Freshwater Fisheries, Social Services, Industries and Religious Affairs.

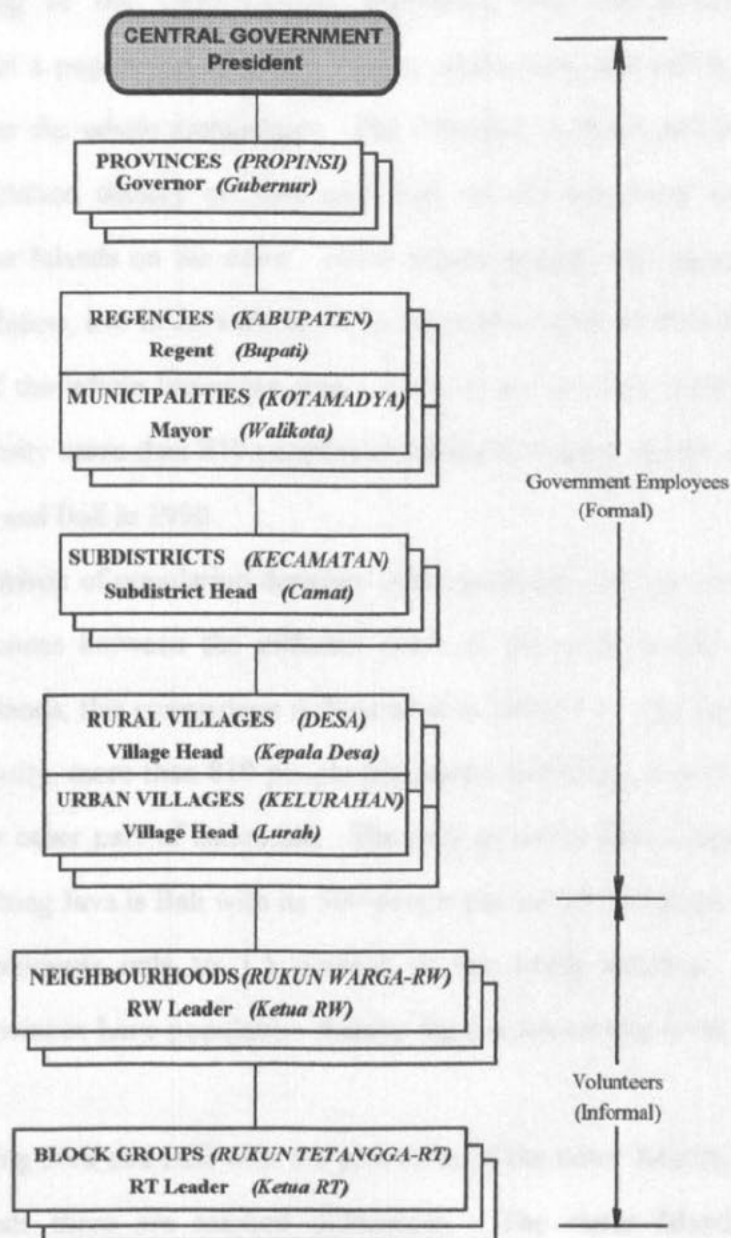
The Indonesian Government administration does not only aim at the improvement and development of its performance in its general administrative duties, but is also expected to carry out administrative duties with regard to the development process, such as preparing plan programmes, exerting proper control over development activities in its relation with either the implementation of the plans.

Village administration in Indonesia is based on the age-old tradition of village communities throughout the Indonesia archipelago electing their village heads (**lurah**). This institution started during the Dutch colonial period and was kept intact, and so has become the basic institution which manages village domestic affairs. After many readjustments and modernisation, the Government of Indonesia submitted a bill to the House of People's Representatives in July 1979, which was sanctioned in October 1979 as Act No. 5 of 1979, governing village administration and dividing villages into two categories. The first is villages located outside urban areas called, 'Desas'. The second is villages located within urban areas called 'Kelurahans' (Department of Information, 1984:103).

Furthermore, every villages (**kelurahan/desa**) supervises the two informal levels of government, a neighbourhood group (**Rukun Warga - RW**) and a block group (**Rukun Tetangga - RT**). Each RW consists of 5 to 15 RT and every RT can consist of 25 to 60 households. The **Ketua RT** is the leader of a block group and the **Ketua**

RW is the leader of a neighbourhood, which are volunteers. However, the Kelurahan is the lowest Government administrative unit in Indonesia, and is made up of several *RW*, which in turn, encompass several *RT*.

Diagram 3.1
Indonesian Central Government Organisation



Source: Department of Information, 1984.

Diagram 3.1 reveals the administrative system in Indonesia. The present system is a direct descendant of the Indonesian system of administration, with its powerful vertical structure, reaching right down to the neighbourhood level, each level being answerable to the one above it.

3.2.3 Distribution of Population

According to the 1990 Census, Indonesia, with the world's fifth largest population, had a population of 179.3 million, which was, and still is, very unevenly distributed over the whole archipelago. The dominant contrast can be seen between the high population density on Java and Bali on the one hand and the sparsely populated outer Islands on the other. 107.6 million people, making up 60 percent of the total population, live in Java alone, while the surface area of Java amounts to only 6.9 percent of the whole Indonesia area. There is no province outside Java with a population density more than 810 people per square kilometre, which was the average figure on Java and Bali in 1990.

A comparison of population densities in the provinces outside Java shows up the marked differences between the different parts of the main islands and groups of surrounding islands; this comparison is illustrated in Table 3.1. The figure for the Java population density, more than 810 people per square kilometre, cannot be equalled by figures for any other part of Indonesia. The only province with a population density figure approaching Java is Bali with its 500 people per square kilometre. However, the surface area amounts only to 1.5 percent of the whole country. All the other Indonesian provinces have population density figures amounting to at best a third of Java's figure.

Comparing Java and Bali with the provinces of the outer Islands, the population density suggests there are marked differences. The outer Islands are sparsely populated. For instance, Lampung, West Nusa Tenggara, North Sumatera and North

Sulawesi all have more than 100 people per square kilometre. Although Central Sulawesi, Maluku, West Kalimantan and Riau have 20 people per square kilometres, the large island of Irian Jaya is even more sparsely populated with 4 people per square kilometre.

Table 3.1 Percentage to the Total Area, Number and Density of Population by Province in Indonesia, 1990

No	Province/Island	Area (Km ²)	A (%)	Population	B (%)	Density (Pop/Km ²)
01	D.I. Aceh	55,392	0.13	3,416,000	1.90	62
02	North Sumatera	70,787	3.69	10,256,000	5.72	145
03	West Sumatera	49,778	2.59	3,999,000	2.23	80
04	Riau	94,561	4.93	3,306,000	1.84	35
05	Jambi	44,800	2.33	2,016,000	1.12	45
06	South Sumatera	103,688	5.40	6,277,000	3.50	61
07	Bengkulu	21,168	1.10	1,179,000	0.66	56
08	Lampung	33,307	1.74	6,006,000	3.35	180
	SUMATERA	473,481	24.67	36,455,000	20.33	77
09	D.K.I. Jakarta	590	0.03	8,254,000	4.60	14
10	West Java	46,300	2.41	35,381,000	19.73	764
11	Central Java	34,206	1.78	28,522,000	15.91	834
12	D.I. Yogyakarta	3,169	0.17	2,913,000	1.62	919
13	East Java	47,921	2.50	32,504,000	18.13	678
	JAVA	132,186	6.88	107,574,000	59.99	814
14	Bali	5,561	0.29	2,778,000	1.55	500
15	West Nusa Tenggara	20,177	1.05	3,370,000	1.88	167
16	East Nusa Tenggara	47,876	2.49	3,269,000	1.82	68
17	East Timor	14,874	0.77	748,000	0.42	50
	NUSA TENGGARA	88,488	4.58	10,165,000	5.67	115
18	West Kalimantan	146,760	7.65	3,239,000	1.81	22
19	Central Kalimantan	152,600	7.95	1,396,000	0.78	9
20	South Kalimantan	37,660	1.96	2,598,000	1.45	69
21	East Kalimantan	202,440	10.55	1,877,000	1.05	9
	KALIMANTAN	539,460	28.11	9,110,000	5.08	17
22	North Sulawesi	19,023	0.99	2,479,000	1.38	130
23	Central Sulawesi	69,726	3.63	1,711,000	0.95	25
24	South Sulawesi	72,781	3.79	6,982,000	3.89	96
25	Southeast Sulawesi	27,686	1.44	1,350,000	0.75	49
	SULAWESI	189,216	9.86	12,522,000	6.98	66
26	Maluku	74,505	3.88	1,856,000	1.04	25
27	Irian Jaya	421,981	21.99	1,641,000	0.92	4
	MALUKU & IRIAN JAYA	496,486	25.87	3,497,000	1.95	7
	INDONESIA	1,919,317	100.00	179,322,000	100.00	93

Note : A. Area expressed as a proportion of total of Indonesia

B. Percentage of total state population

Source : Central Bureau Statistics, 1991, Table 1.1 and 3.1.1.

This differing population density has a decisive effect on the urban system (see chapter 3.2.4). Both development and the distribution of cities and towns depend on variations in the population distribution, both within Java and among the outer Islands.

Table 3.2 shows the population distribution in provinces in Indonesia from 1930 to 1990. This regional pattern of population distribution has prevailed for more than 60 years, although the annual growth rates has proved to be irregular.

Table 3.2 Population Distribution and Annual Growth Rate by Province in Indonesia, 1930, 1971, 1980 and 1990

No	Province/Island	Population (in 1000s)				Annual Growth Rate (%)		
		1930	1971	1980	1990	1930-71	1971-80	1980-90
01	D.I. Aceh	1,003	2,009	2,611	3,416	1.9	2.93	2.72
02	North Sumatera	2,541	6,622	8,361	10,256	2.4	2.60	2.06
03	West Sumatera	1,910	2,793	3,407	3,999	1.2	2.21	1.62
04	Riau	493	1,642	2,169	3,306	3.0	3.11	4.31
05	Jambi	245	1,006	1,446	2,016	3.6	4.07	3.38
06	South Sumatera	1,378	3,441	4,630	6,277	2.5	3.32	3.09
07	Bengkulu	323	519	768	1,179	1.7	4.39	4.38
08	Lampung	361	2,777	4,625	6,006	5.2	5.77	2.65
09	D.K.I. Jakarta	811	4,579	6,503	8,254	4.2	3.93	2.41
10	West Java	10,586	21,624	7,454	35,381	1.9	2.66	2.57
11	Central Java	13,706	21,877	25,373	28,522	1.2	1.64	1.18
12	D.I. Yogyakarta	1,559	2,489	2,751	2,913	1.1	1.10	0.57
13	East Java	15,056	25,517	29,189	32,504	1.3	1.49	1.08
14	Bali	1,101	2,120	2,470	2,778	1.6	1.69	1.18
15	West Nusa Tenggara	1,016	2,204	2,725	3,370	2.0	2.36	2.15
16	East Nusa Tenggara	1,343	2,295	2,737	3,269	1.4	1.95	1.79
17	East Timor	472	611	555	748	0.3	-1.10	3.02
18	West Kalimantan	802	2,020	2,486	3,239	2.3	2.31	2.68
19	Central Kalimantan	203	702	954	1,396	3.1	3.43	3.88
20	South Kalimantan	835	1,699	2,065	2,598	1.8	2.16	2.32
21	East Kalimantan	329	734	1,218	1,877	2.7	5.73	4.42
22	North Sulawesi	748	1,718	2,115	2,479	2.1	2.31	1.60
23	Central Sulawesi	390	914	1,290	1,711	2.4	3.86	2.87
24	South Sulawesi	2,657	5,181	6,062	6,982	1.7	1.74	1.42
25	Southeast Sulawesi	436	714	942	1,350	1.6	3.09	3.66
26	Maluku	579	1,090	1,411	1,856	1.8	2.88	2.78
27	Irian Jaya	179	923	1,174	1,641	3.8	2.67	3.41
INDONESIA		61,065	119,208	147,490	179,322	1.8	2.32	1.97

Source: Central Bureau Statistics, 1991, Table 1.1 and 3.1.1.

During the period 1930 and 1971 the total population doubled, with the annual growth rates at 1.80 percent. Between 1971 and 1980, this annual growth rate rose to 2.32 percent, and from 1980 to 1990 this annual growth rate decreased to 1.97

percent. However, those provinces other than Java, which contain today's areas of population concentration, have shown an above-average growth rate since 1930. These include Riau, Jambi, Bengkulu, South Sumatera, Lampung, Jakarta, Central Kalimantan, East Kalimantan, Central Sulawesi and Southeast Sulawesi.

During the last decade (see Table 3.2, columns 6 and 9), further areas of concentrated population growth have emerged. The populations of Riau, Jambi, South Sumatera, Bengkulu, Central Kalimantan, East Kalimantan and Southeast Sulawesi are still increasing rapidly and this has contributed to the trend towards above-average growth rates of Indonesia. However, Java, Bali Nusa Tenggara, Maluku and Irian Jaya are the regions showing the smallest proportional increases in population.

This situation has been brought about by first attempts at birth control in National Family Planning Programme. Therefore, population density and population growth have already had an effect on the distribution of cities and towns, and will continue to in the future. The case of disproportionately high urban growth rates in the past is expected to continue. (Rutz, 1987; Mantra, 1991; Douglas, 1990).

However, most of the population remains in the traditional agrarian sector. In 1990, 70 percent of the population lived in rural areas. However, the rural population is very unevenly distributed with the major population centres tied to rural areas of rich volcanic soil and plentiful monsoon rains (Mantra, 1990).

The island of Lombok and Bali, parts of Sumatera and Sulawesi, also have dense rural populations although they tend to grow cash crops. Furthermore, Kalimantan and Irian Jaya, with nearly half Indonesia's total land area, are still isolated from development programmes and are still engaged in shifting cultivation.

3.2.4 Urbanisation in Indonesia

The definition of urban areas in Indonesia¹, which are classified as municipalities, regency capitals and other places with urban characteristics, changed from one based on simple townscape visualisation criteria in the 1930s, to one based on population

residing within the city boundaries in the 1950s and 1960s, to a more functional definition adopted in the 1980s based on village level statistical standards (Soegijoko, 1985; Rutz, 1987).

According to the statistic census report, the relative proportion of urban population in Indonesia grew from 14,930,700 people, accounting for 15.5 percent of national population in 1961, to 20,460,300 people, accounting for 17.3 percent a decade later, to 32,608,500 people, accounting for 22.4 percent in 1980, and in the latest census of 1990 it had risen to 55,948,352 people, accounting for 31.2 percent of the aggregate population (Central Bureau Statistics, 1991).

Furthermore, according to the National Urban Development Strategy Project (NUDSP, 1985), by 1980, there were 1,132 cities throughout the country, each with a population of 3,000 or more people. Table 3.3 shows that Java, the smallest of the five bigger islands, has always had the highest population density as well as the most varied city sizes, and has 644 cities.

Table 3.3 Urban Population and City-Size Distribution by Major Islands in Indonesia, 1971 - 1980.

Major Islands	Urban Population		City-Size Distribution							
			A		B		C		D	
	1971	1980	1971	1980	1971	1980	1971	1980	1971	1980
Sumatera	4,886,086	7,033,170	2	3	5	4	26	35	141	159
Java	19,021,725	24,885,869	4	4	16	23	104	133	395	484
Nusa Tenggara	998,879	1,330,983	-	-	2	2	9	12	32	34
Kalimantan	1,248,694	1,926,415	-	-	4	4	3	6	41	45
Sulawesi	2,767,528	3,481,744	-	1	2	1	20	30	135	134
Maluku	117,589	222,331	-	-	-	1	1	-	3	3
Irian Jaya	169,853	214,498	-	-	-	-	2	3	11	11
Indonesia	29,210,354	39,095,010	6	8	29	35	165	219	758	870

Note : A. > 500,000; B. 100,000 - 499,999; C. 25,000 - 99,999; D. 3,000 - 24,999

Source : 1. Lembaga Penelitian Planologi (LPP), Institute for Urban and Regional Studies, Institute of Technology Bandung, 1984.

2. Soegijoko, (1985:79).

Rutz (1987:31) commented that "it would be erroneous to deduce from these figures that the urban population of Indonesia had more than doubled during these 19 years (1961-1980). Not only is it difficult to make a temporal comparison on the basis

of these figures, but one must also pose the question as to whether they accurately represent the absolute level of urbanisation. As far as the distribution of cities and towns is concerned, it is, after all, the regional differences in the proportion of urban inhabitants in various parts of the country which are of primary interest".

However, the urbanisation level in Indonesia is still relatively low, compared with that of its neighbouring countries. In 1988, the proportion of the urban population in Indonesia (27%) was lower than in Malaysia (41%) and the Philippines (41%) (World Bank, 1990:238-239). In addition, the distribution of the urban population is fairly balanced. The domination of Jakarta as a larger city in Indonesia, for example, is not as great as the cities in the neighbouring countries. In Indonesia, urban problems such as poor living conditions and quality of life, crime, and inadequate transportation are found in the large cities like Jakarta, Surabaya, Bandung and Semarang (Mantra, 1990).

3.3 The General Pattern of Long-Term Development Policy

Supremacy in the political crisis of 1965 and 1966 opened a new chapter in history for the Indonesian people to develop themselves on a national scale for the creation of a just and prosperous society. Political stability has enabled the redevelopment of economic stability, curbing the inflation of the past several years. Political, economic and defence stability are the main prerequisites for the implementation of Indonesia's national development.

Since 1969 Indonesia has embarked upon a nation wide development aimed at gradually raising the living standards of people. A national long term development has been drawn up covering a 25 years period in an effort to give general direction to the development of the nation. Every five year period, a Guidelines of State Policy, or **GBHN** (*Garis Besar Haluan Negara*), is formulated to give guidance for the implementation of Five Year Development Plan, or **Repelita** (*Rencana Pembangunan Lima Tahun*).

The Guidelines of State Policy (GBHN, 1969:11) stated that :

"the Five Year Development Plan has been framed to raise the standard of living and at the same time lay a solid foundation for national development in the subsequent periods. The plan takes into account our present capability and keeps constantly in mind the perspective of long term objectives. Consequently, the development plan has been formulated realistically and pragmatically. The development targets it hopes to achieve are very simple, namely: adequate provision of food, clothing, infrastructure and housing, and expansion of employment opportunities and spiritual welfare".

Furthermore, the aim of the Repelita is to carry out development efforts which will make possible a process of modernisation directed towards breaking through the wall of economic backwardness, with targets concentrated in agricultural development. With agriculture as a starting point development efforts in industry, mining, infrastructure, manpower, education, regional development and other sectors will be expanded.

The simultaneous and co-ordinated elements of this development strategy are expected to provide a sufficient inducement to get the Indonesian economy out of the stagnation of its economic backwardness. Therefore, opportunities were broadened for the acceleration of development which was to be carried out over several periods. The first Five-Year Development Plan covered the period 1969 to 1974, the second, 1974 to 1979, the third, 1979 to 1984, the fourth, 1984 to 1989, and the fifth, 1989 for the subsequent five years. Nevertheless, in order to secure successful achievements, each five year development is focused on certain objectives and targets.

3.3.1 The First REPELITA (1969-1974)

The First Five-Year Development Plan (Repelita I) covers the period of April 1, 1969 to March 31, 1974. As a first Repelita, the main objective and target was to control inflation in the economy, to produce sufficient food, to rehabilitate the infrastructure, to stimulate exports and to provide clothing. To reach those targets one

of the most important policy decisions was to concentrate on decontrol and a reduction in bureaucracy (Dept. of Information, 1969:9).

As a result, the level of inflation in 1966, as reflected in the increase of the cost of living index, reached 650 percent. However, in 1967 the increase was 120 percent, in 1968 85 percent, and at the end of First Repelita the increase was 40 % (Sjahrir, 1992:47).

The sectors of housing and human settlements were stressed in the rehabilitation of existing urban infrastructure (i.e. water supply facilities and sanitation) and the preparation of the technical-technological aspects of housing development. As a result, the Government carried out research, surveys and projects on housing models such as building materials and their efficient use (Dept. of Information, 1969:77-80).

Urban programmes focused on a few major big cities, particularly on Jakarta itself, and on a limited range of activities. The water supply programme and the Kampung Improvement Programme were the two 'flagships' of urban development (Suselo and Hoban, 1988:2).

3.3.2 The Second REPELITA (1974-1979)

The second Repelita was for the 1974-1979 period, which put stress on expanding employment opportunities and the equitable distribution of development gains. It also covered the acceleration of food production, textiles, low-cost housing and cultural and spiritual life. The focus was on high economic growth through expansion of the nation's infrastructure and on improvements to the standard of living (Dept. of Information, 1974:10).

The rapid increase of revenue was mainly the result of the oil boom in the world market. For instance, since period of 1979/1980 to 1981/1982, taxation has increased to 3.3 billion Rupiah, at the same time the export tax from oil was 85 percent of the total of all export taxes. (Sjahrir, 1992:50).

Furthermore, in the sector of housing and human settlements, while continuing the effort taken in first Repelita, further expansion of urban infrastructure facilities was implemented and effort to provide affordable housing to low income people was undertaken through the establishment of various housing institutions. Urban programmes were targeted to additional medium-sized cities and expanded to include a wider range of infrastructure and services (Suselo and Hoban, 1988:2; Directorate General. of Cipta Karya, 1989).

Since Repelita Two, the Government has initiated 'the Kampung Improvement Programme (KIP)' as a national policy in urban development programmes, which aims at improving inferior pockets of urban areas. A more detailed description of these programme will be presented in the next sub-chapter (3.6).

3.3.3 The Third REPELITA (1979-1984)

Under the Third Repelita period, Indonesia's development efforts in the field of economy showed positive growth. These efforts were based on the objectives from the basic elements of the 'Three Fundamental Objectives of Development', which are closely interrelated and mutually supporting. The first is a more equitable distribution of development gains, leading to the welfare of the entire population. The second is a sufficiently high economic growth. The third is a sound and dynamic national stability (Dept. of Information, 1979:119). These policies and continuous development activities in the field of economy have distinguished Indonesia among the ranks of 'Low Income Countries' as one with increasing GNP per capita. The latter rose from US \$ 205 in 1965 to US \$ 540 in 1984 (Ichimura, 1988:1).

In the human settlements sector, development was further intensified, specifically directed to attain a more equitable distribution of development gains. Housing has become one of the national priorities after food and clothing. Increased attention was given to many urban programmes for smaller cities and to improvements in the delivery of urban services to low-income urban neighbourhoods (Suselo and Hoban, 1988:2).

3.3.4 The Fourth REPELITA (1984-1989)

Parallel to each stage of development within the framework of implementing the General Pattern of Long-term Development, the objectives of the Fourth Repelita were as follows: first, the equitable improvement living standards, intelligence and the welfare of the whole people, and second, to lay a strong foundation for the next stage of development. The underlying theme for this period was strengthening national resilience and self reliance (Dept. of Information, 1984:117).

In this period, the development of human settlements called for greater involvement and participation of local governments, the private sector and communities in the planning, financing, implementation and maintenance of urban infrastructure development (Directorate General. of Cipta Karya, 1989:9).

The structural change in the local government area formed part of the national government plan. This change was also seen as a necessary requirement for coping with Indonesia's massive short term urban management and urban development tasks in a period of accelerating urbanisation, rising community expectations and a reduced central government resource pool for urban and other development investment (Suselo and Hoban, 1988:3).

3.3.5 The Fifth REPELITA (1989-1994)

During the Fifth Repelita period 1989-1994, endeavours have to be made to establish the structural foundation for the nation for its growth and development, so that in the Sixth Repelita period, the Indonesian nation may truly 'take off' to accelerated development toward the realisation of the desired society (Sjahrir, 1992:90).

Based on the Guidelines of State Policy (GBHN), the Fifth Repelita will have two main targets, namely to raise the living standards, enlighten the mind and improve the well-being of the people more evenly and equitably, and to lay a solid foundation for the subsequent long term development stage. The priority is placed on economic

development, while putting the emphasis on the agriculture and industrial sectors. Repelita Five calls for an economic growth rate with an annual average of 5 percent which is expected to create sufficient additional work opportunities to absorb the estimated 11.9 million new job-seekers (Dept. of Information, 1989:10).

International comparable income figures are difficult to find for Indonesia because the United Nations International Comparison Programme (ICP) did not estimate these in terms of purchasing power parity (PPP) until 1990. The difference between the GNP per capita in local currency values and GDP per capita in PPP values is very significant: In 1990, the GNP per capita for Indonesia was US \$ 570, while in PPP values, GDP per capita was US \$ 2,350 (World Bank, 1992:276). In part, this is due to the way depreciation is subtracted from GNP to obtain GDP as well as the way international trade is handled, but more important is the purchasing value of the Indonesian Rupiah in terms of convertible dollars.

Because of the lack of ICP PPP values before 1990, in this study, it has been necessary to use what are very much second best values, GNP per capita. Given that the rate of inflation in the decade of the 1980s was on average 8.4 percent, the inherent deficiency of this approach is obvious. That being the case, however, GNP per capita increased from US \$ 440 in 1988 (World Bank, 1990) to US \$ 570 in 1990 (World Bank, 1992) and US \$ 600 in 1992 (Central Bureau of Statistics, 1992). Therefore, this is really an impressive achievement and proves that the Indonesian economy has passed the initial stage of take-off (Sjahrir, 1992:7).

In order to attain such economic growth in the next five year period, the Government will concentrate on the mobilisation of sources of funds to finance development, that is to increase non oil/gas exports and to increase investment by business. Significantly, in human settlements and urban development, efforts will be further accelerated to improve social welfare and to carry out on-going programmes started in the previous Repelita (Directorate General. of Cipta Karya, 1989:10; Sjahrir, 1992).

The scope of housing provision and human settlements in Indonesia in this Repelita V has two major aspects. Firstly, urban housing development programmes will be implemented for low cost housing, kampung improvement, housing environment improvement, urban renewal and housing development, urban water supply, integrated urban infrastructure development and building setting. Secondly, efforts will be made to accelerate improvements to the rural environment, rural housing development and rural water supply (Dept. of Information, 1989:485-490).

3.4 An Overview of Urban Development in Indonesia

3.4.1 Urban Growth in Indonesia

As with most urban growth in the developing countries, Indonesian cities are agglomerations of different districts with varied functions which have been shaped according to the ethnic composition of their inhabitants. Their layouts from various periods reflect the influence of the archipelago's different cultural trends. The various periods are Indian-Hindu traditions, periods of Islamic rule, colonial periods and the independence era, which can further be classified into two periods: first, before the abortive 1965 communist coup de' etat, and second, after this rebellion (Rutz, 1987; Salim, 1992; Herlianto, 1990).

The pattern of the city centres is based on Indian-Hindu traditions. Common features are the central square, with the adjoining former ruler's residence and other public buildings in spacious grounds. This ancient Javanese pattern has also been applied to recently founded cities.

Salim (1992) pointed out that Indonesian cities exhibit two development patterns, the formal and the informal (namely *kampung*s area). During the colonial periods, the Dutch government exercised two different planning and land tenure systems. First, within the city boundary the Dutch adopted formal planning and land regulation mainly based on a European system. Second, outside the city or *kampung*,

there was not any formal planning as such, and the land tenure system was regulated by customary law (*hukum adat*).

Furthermore most cities in Indonesia had two types of residential area, the formal housing areas and the *kampungs*. The formal residential areas had been located within a city boundary, serviced with urban infrastructure and occupied by the colonial government officials or Europeans. The houses of the colonial upper class are still present in the older parts of cities. They are still being imitated today, but this type of settlement is degenerating due to incongruities in style, high building density and the construction of boundary walls (Salim, 1992; Yudohusodo, 1991).

The *kampung* may be older than the formal residential areas (see chapter 3.5), located exclusively beyond the city boundary, spreading from the inner city to the periphery area, serviced with limited urban infrastructure or totally unserved, and comprised primarily of single-storey structures of the indigenous middle and low income people. The Dutch government maintained clear cut development areas, separating the Europeans from the indigenous settlements.

Since independence, this development pattern has continued. The formal development has been mostly carried out through government projects, and the *kampungs* have been growing, developed by individual citizens. However, the government does not adopt a clear cut division of development between the formal and the informal (*kampungs*). As a result, urban growth in Indonesia exhibits two different types of residential areas mixed between the formal and the informal (Atman, 1975; Taylor, 1982; Salim, 1992; Rutz, 1987).

3.4.2 Urban Housing Policy

The government has been attempting to formulate national housing policy since independence. From this time, this housing policy has been a slowly developed programme. Initially, the government provided state houses for civil servants distributed through ministries.

Herlianto (1990) pointed out that the government effort to house the people started in 1952, when the government set up a public housing office. The main task of the office was to conduct research on policy development and technical standards.

Government policies on urban housing have been directed to overcoming the problems of lack of infrastructure in the informal residential areas, such as the kampungs, and through attempts to reduce the rate of growth of the informal development by providing a greater stock of formal houses.

In the period 1955 - 1964, the government continued to provide houses for civil servants through each ministry and local government office, to conduct housing research, and institutional development. The first National Housing Law was enacted in 1964. However, implementation only started in 1974 because there was a political and a social disturbance due to a communist party rebellion which broke out in 1965.

During period of first Repelita (1969-1974), the government set up a state housing agency called PERUMNAS (*Perumahan Nasional*) to meet the housing demand, not only for the government officials, but also for others who had permanent incomes. Further, research on housing policy, standards and institutional development were at the stage for mass production. Some housing prototypes have been built in conjunction with providing houses for civil servants and low cost housing in rural areas.

The second Repelita (1974-1979) can be seen as the starting point of the implementation of the housing programme in the country after much research had been undertaken. Several institutions were set up in this period. First, the government established the National Housing Board charged with formulating national housing policy. Second, the Urban Housing Development Corporation was also established to implement the programme. Third, the National Saving Bank, or BTN (*Bank Tabungan Negara*) was set up to provide the necessary housing development funds both to would-be home buyers as well as to developers in the form of a construction credit, and to serve the low-, middle-, and high-income sectors. Fourth, Real Estate

Indonesia, a housing developers association, became the government's partner in housing development (Batubara, 1992; Yudohusodo, 1991).

During period of 1979-1984, the office of Junior Minister for Housing Development under the Minister of Public Works was created, and in 1983, its status was upgraded to State Minister level. Most important of all was the Kampung Improvement Programme created to implement an extensive housing policy and to integrate urban services for the poor (Soegijoko, 1985).

Mirhad (1992) pointed out that the middle and low income groups have the potential to own houses, but they need some help from the government. Without help from the government these groups would be able to build their own houses, but only in an informal way, in the kampungs, which subsequently create substandard residential areas. They will suffer from overcrowding, poor sanitation, roads and fire prone areas.

The government further improved institutions to implement the national policies for the next five year development plan in the country and to increase the formal housing stock. Furthermore, the State Minister for Public Housing had already announced that in the forthcoming Five Year Development Plan, the target was to be 450,000 units. Three-quarters was to be constructed by private developers, and the rest by PERUMNAS. The objectives of this policy was to house as many people as possible, particularly those who were in the low-income groups. The goal of this policy is to realise affordable housing for the low income people through the provision of low cost houses and improved access to basic services in urban and rural areas (Ministry of Housing, 1990).

3.4.3 Urban Development Policy

This section will examine the urban development policy that has been formulated and implemented since the 1970's. The major thrust of the urban development in Indonesia has been a continuation of existing established programmes, a modification

to taking cognisance of earlier programme experience, changing circumstances and the expected pattern of urban growth (Yudohusodo, 1991).

According to Suselo and Hoban (1988:3), the scope and content of the government urban programme through the 1970's and early 1980's included:

1. **Kampung improvement** : To provide low cost infrastructure improvements, including upgrading small roads, footpaths, local drainages, water supply, community toilets, water facilities, garbage disposal and in some cases primary schools, local health clinics and community market facilities.
2. **Urban housing** : to provide housing and housing finance for low and middle income groups.
3. **Water supply** : to provide improved capacity of water supply.
4. **Urban sanitation** : included drainage, human and solid waste disposal system.

Therefore, in the framework of enhancing the people's welfare, the government was trying to gear the people towards building and developing their own houses and settlements under its guidance.

In accordance with the National Urban Policy Statement (Government Regulation, No. 14, August 1987) which was issued by Bappenas (The National Development Planning Board), the preamble stated that:

"...Policies need to be continuously developed in order to manage the growth and overall socio-economic development of the population better, both among and within the cities themselves, and in the most efficient and equitable manner.

In this connection, a variety of measures are being implemented to upgrade government capabilities, especially at the regional or local levels, to plan, implement and manage programmes, providing necessary urban infrastructure such as clear water supply, sanitation, drainage, roads, kampung improvement, garbage disposal, fire protection, market facilities and several others programmes."

Furthermore, in 1987 the Government of Indonesia reaffirmed a set of six policies for urban development:

1. The provision, development and maintenance of urban infrastructure are acknowledged as the responsibility of local governments.

2. Decentralisation and an integrated approach to planning, programming and identification of investment priorities by all levels of government for urban development.
3. Upgrading of local government capabilities in mobilising the resources and optimising the use of funds for urban infrastructure development.
4. Facilitating borrowing for local government urban infrastructure investment needs and also to provide incentives for local resource mobilisation.
5. Training and provision of technical guidance which aims at improving the necessary skills as well as enhancing perception and appreciation of all parties involved in urban development programmes.
6. Co-ordination and integration of various sectoral development activities for urban development in a more efficient and effective manner.

Therefore, the urban development programmes are essentially local government oriented development programmes. An Urban Development Coordination Team has been established as an inter ministerial task force that aims at formulating urban development activities in a wider and more comprehensive context. Planning, programming and financing by all level of governments for urban development will be implemented among others through the Integrated Urban Infrastructure Development Programme or IUIDP. This will include provision of clean water supply, solid waste disposal, drainage, sewerage, roads, and kampung improvement. Although all investments in urban infrastructure will be programmed in accordance with integration of various urban development components. The urban development as whole will still depend upon the needs of the local government concerned (Budihardjo, 1992; Directorate General. of Cipta Karya, 1989).

3.5 The Kampung Definition and Type of Settlement

Most Indonesian cities have grown through a process of agglomeration of existing villages. After the Second World War, incoming migrants who could not find

space in the original village, squatted on empty or abandoned areas of land and in the city centres, forming new villages, called *kampungs*, with the status of illegal settlements. Many of these migrants ended up living in sprawling kampungs and working in the informal sector activities.

3.5.1 Definition of Kampung

Historically, *kampungs* were autonomous settlements or villages located on pockets of rural land or on the fringes of Indonesian cities. As these areas became more crowded, their standards of sanitation remained low, with the resulting prevalence of disease and poverty. City administration became concerned about the effect the settlements might have on the living conditions of the city as a whole. The kampung is a very important part of the Indonesian city, as approximately two-thirds of the urban population live in such areas (Patton and Subanu, 1988:170).

However, the Indonesian word kampung is not easily defined. The term 'neighbourhood' is too general, 'residential area' is not correct, and 'slum area' does not signify the type of comfortable living conditions which many kampungs offer. Building materials and quality of construction of kampung dwellings are also different, not only within a kampung but also between the various kampungs (Utoro, 1989). Although there are few areas where land is disputed or where high densities are developing largely through the rental market, the majority of kampungs are gradually consolidating village structures with a mixture of socio-economic groups and housing types (Djajadiningrat, 1981).

According to United Nations (1989:28), "The term kampung literally means a compound, but came to be applied to the semi-urban villages built on swamps or former rice fields that form a large part of most Indonesian cities. Although informal, unplanned and, until recently, unserved, the majority of kampungs have some form of legitimate tenure, hence they cannot be classified as squatter areas".

In this case, Taylor (1982:240) stated :

"It is important to understand the definition of the term 'kampung' in the context of Indonesia. The term refers to predominantly residential areas which were often villages that have been engulfed by rapid urban expansion and incorporated within the city. These 'kampungs', which include middle-income as well as low income families, are characterised by generally inadequate physical infrastructure and social services. However, many of them are viable communities".

Therefore, the most suitable definition of *kampung* is that "it is a heterogeneous settlement in and around the city where gradual change from rural to urban characteristics is noticeable and where high density and low servicing account for some general environmental and housing problems" (Baross, 1984:317).

Accordingly, Benyamin and Arifin (1985) added that because the kampung system is very flexible in receiving new migrants, therefore the characteristics of a kampung include mixed social status, mixed land uses and mixed socio-economic system.

3.5.2 The Kampung as a Type of Settlement.

The original kampung residents were typically rural, generally less educated than the average urban dweller, poor, and considered to be lower class. Nevertheless, kampung residents have retained many of the positive aspects of rural life, such as social traditions, neighbourliness, community cohesiveness, and the mutual-help or '*gotong royong*' tradition, by which many services that otherwise would have to be paid for can be rendered on an exchange basis among neighbours. This system has been deliberately maintained, even though some kampung residents are becoming less interested in participating in such community activities and would prefer to pay for services.

Atman (1975:217-218) classified kampung as firstly, the *rural kampung* or a '*desa*' on the urban periphery in which rural life dominates the influence of city culture; secondly, *the semirural kampung*, which is also a predominantly rural settlement though it is progressively incorporating many urban elements; thirdly, *the semiurban kampung*, which is a non urban environment that has become 'decadent' on account of the urban infiltration which has destroyed its former rural characteristics; and lastly, the

urban kampung, which is a fully urbanised area, incorporating some city services and features characteristic of the Indonesian city.

Furthermore, Parwoto and Baross (1981:15-20) attempted to classify four kampung types into various sub groups generally taking the degree of density as the most prominent feature. Their first group is the *urban kampungs*, where the majority of low income settlements are located in the still growing transitional belt around major Indonesian cities. The land and dwellings are 60 to 70 percent owner-occupied, although only a few have registered tenure status and the buildings are constructed without official building permits. The infrastructure provision is rudimentary and what does exist of walkways, wells, and communal toilets is developed by the local community.

Second are the *tenement kampungs*, which are inner city kampungs dating back to the colonial period. Their encirclement by subsequent urban growth severely limits their possibility of expansion. The housing stock is relatively solid. Open space is practically non-existent. However, due to their central location, the tenement kampungs often have good access to basic infrastructure.

Third are *fringe kampungs*, which are growing at the outskirts of cities and in the community belt small villages and settlements are gradually becoming the new reception areas for 'owner managed' house builders. Most of the settlers are well established urban residents who, having a reasonably secure job, move out from shared accommodation in the urban kampungs. However, there is no public infrastructure provision.

Fourth are *illegal kampungs*. These settlements are located on land which does not legally belong to the residents and can be judged to be not suitable for residential development such as cemeteries, roads and rail rights-of way, flood plains and tidal marshes.

Therefore, the author prefers to use the term *urban kampungs*. However, according to Patton (1988:170-171), there are basically two kinds of urban kampung.

One is the consistently poor and overcrowded centrally located kampung and called '*the central kampung*'; the other is the less crowded, peripheral, and typically higher income kampung, called '*the peripheral kampung*'. These are the types of settlements which are relevant to the research. The adopted classification better describes urban kampungs because the classification captures their location, the density, and income characteristics.

The first kind of urban kampungs, *the central kampungs*, are filled with houses packed so closely together that to reach a house one may have to squeeze through between the walls of other houses. These kampungs are usually located on appropriated or marginal land close to the activity centres of the city, in many instances behind a row of middle to high-income houses. Activity centres are their primary source of income, including low-level public servants, food peddlers, garbage collectors, scavengers, or other informal-sector workers.

The residents of central kampungs cannot afford conventional housing and have to revert to self-help housing, often building houses out of scrap materials on appropriated private or government land. These people live closely together and lose most of their privacy in order to live cheaply and near their workplaces.

The larger cities on Java Island have been receiving increasing flows of rural migrants since the end of World War II, and these migrants typically settled in the central kampungs. As the original central kampungs became overcrowded, the incoming migrants began to settle on marginal lands such as river banks, in abandoned Chinese cemeteries, along rail-ways, and on private or government-owned vacant land close to the centres. As time went by and no public action was taken against the squatters, these new central kampungs became established residential areas, although with primarily temporary housing and no definite status of land ownership (Yudohusodo, 1991; Silas, 1992).

The second kind of urban kampung, *the peripheral kampung*, is less crowded and has better constructed houses with higher-income residents. These kampungs are

generally located farther from urban activity centres, however still within easy reach of most urban services. They may be in peripheral areas either within or outside the municipal boundary line. As the national economy improved, and more people could afford better housing, people began to consider these peripheral kampungs as land resources, and middle-income families started to move into them.

This movement caused increased building densities. However, it introduced better constructed houses into the kampung, increasing the value of kampung land. With the movement of higher-income families into peripheral kampungs, there appears to be a beneficial relationship between lower- and high-income families, with the lower-income people providing services, for pay, to the higher income people.

The above kampung settlement is still a rather crude approximation of the diversity which actually exists in each of the settlements. The age of the neighbourhoods, ethnic composition, the character of the surrounding urban development, topography and the frequency of flooding all justify a finer grade of difference among them, and often within them.

As the kampung becomes more and more exposed to urban infiltration, its inhabitants desire to express their urban status in the character of their dwellings. They wish to show that they are not backward and that they are identifying themselves with modern life. This social attitude has many consequences. The traditional building material of bamboo and timber are considered old fashioned and new status symbols are incorporated, starting with such items as brick floors, glazed windows and asbestos or iron roofs. In effect, this means that temporary buildings are slowly changed into more durable and more permanent structures. In other words, the urban kampung undergoes a modernisation process.

3.6 Kampung Improvement Programme Development

In order to understand the linkages between sustainable development and urban development in terms of the kampung improvement programme, it is necessary to refer

to the political, economic and social contexts in which the programme was implemented.

Every Third World city has increased its involvement in urban shelter projects and the provision of basic sanitation and drinking water over recent decades. In Indonesia, the government has run a Kampung Improvement Programme to improve community facilities and to provide basic infrastructure and services to the city's poorest communities. In major cities in many other nations, including Bombay (Despande and Arunachalam, 1981), Bangkok (Thanphiphat, 1986), Manila (Einsiedel and Reforma, 1986), and Lima (Turner, 1976), similar approaches have been tried with some success.

In this section, the various historical development, objectives, national policies, typologies and remark of programmes in the field of KIP are presented in a more or less chronological order.

3.6.1 Historical Development of KIP in Indonesia

Historically, Kampung improvement policies have progressed through three different periods: the Dutch colonial period; the post-independence era; and the first Five-Year Plan (Repelita) and KIP period.

3.6.1.1 The Dutch Colonial Period

Historically, kampung improvement activities started under the Dutch colonial rule in 1918, called "**Kampung Verbetering**" (Atman, 1975:218; Sujarto, 1982:10). The main purpose of the Dutch government was to undertake public improvements in a part of the kampung believing that this action would have a positive effect on the condition of the adjoining areas. This hope was fulfilled. People started to clean up and redecorate their dwellings, showing that the action of the government had upgraded the status of the city.

In 1937, the municipality of Batavia (Jakarta), one gets an impression of the meaning of pre-independence 'kampung verbetering':

"Until 15 years ago conditions in the kampungs left everything to be desired. As a rule room was reserved for the pedestrian and even the wheel traffic but these roads had not been hardened and the drainage, also of the compounds, was very insufficient... The kampung improvement was restricted to the improvement (or rather, the building) of roads and the required drainage works... As a rule the population themselves take the improvement of the houses in their own hands as soon as the roads and the drains have been built. Public bath houses with lavatories are being built in the kampungs by the municipality." (Wertheim et al., 1958:99, Quoted from Specker, 1981:54).

However, cost restrictions, economic depression, financial and political problems hindered the Dutch colonial government in its efforts to improve the urban kampungs (Atman, 1975; Devas, 1981; Baross, 1984).

3.6.1.2 After Independence

After independence (1945), little or nothing was done in the kampungs for a period of 20 years by the Indonesia government. As might be expected, the process of urbanisation and densification of urban kampungs went on. Low income housing production took place through self-help and the traditional segment of the construction sector.

Not only were there no systematic government induced kampung upgrading or low income housing programmes but public works programmes for maintenance and necessary extensions of city-wide public amenity systems were increasingly lagging behind compared with the growing needs of the fast growing cities. Sewage and drainage systems grew more and more inadequate, increasing density of urban areas led to serious congestion and inaccessibility, piped water provision to low income areas did not take place. In general, the living conditions in urban kampungs have worsened since this time (Budihardjo, 1992; Yudohusodo, 1991).

There was some scattered evidence of programmes of local governments in a number of municipalities through which limited financial support was provided for kampung level self-help improvement activities. The kampung community identified specific neighbourhood needs or problems, developed a proposal for improvement

such as building a Mosque or improving a road and addressed these by bringing together local funds and labour. The proposals were collected by the village level social institution, or LKMD² (*Lembaga Ketahanan Masyarakat Desa*) which made a first selection and sent it on to the municipal public works department, which calculated financial budgets. Of the total costs, which was apart from the free labour from the community, the municipality would contribute 25 to 40 percent municipal or special development funds. Moreover, the government rendered assistance by providing appropriate guidelines and standards for the proposed facilities (Specker, 1981; Silas, 1992).

Despite restricted scope and limited funds these projects could successfully solve specific problems in the neighbourhood by relying on the people's own resources. The biggest impact was typically achieved in the relatively well-to-do kampungs, where adequate funds were more easily raised by the inhabitants.

3.6.1.3 The Repelitas and KIP

Prior to the establishment of the KIP, little was done to improve the living conditions of the people in these kampung areas because the programmes proposed were often designed to standards which were beyond the means of the population they intended to serve. However, both in Jakarta and Surabaya, the local governments towards the end of the sixties initiated programmes to improve the living conditions or to slow down the deterioration of these conditions in the kampung areas.

During Indonesia's Five-Year Development Plan or Repelita, the KIP was increasing the areas from a big cities to middle and small cities throughout the country and became a national programme. Therefore, this section will describe an implementation of KIP in every period of Repelita.

A. KIP in the First Repelita

During this period, there was no specific national policy in human settlement and housing policy concerned with KIP. Nevertheless, Jakarta and Surabaya resumed to

improve their urban infrastructure problems as a primary pilot projects of urban development programme and a local government programme.

B. KIP in the Second Repelita

This period can be seen as the starting point of national programme in KIP implementation in big cities throughout Indonesia, primarily, in Jakarta, Bandung and Surabaya, and later in Ujung Pandang (capital city of South Sulawesi). 50 percent of the budget consisted of a loan from the World Bank to the central government while the other 50 percent was from the local government (Soegijoko, 1985). This kind of financial arrangement was possible only in bigger or metropolitan cities. In this period the improved kampungs reached 7,000 hectares and served 2,500,000 inhabitants (Setiobudi, 1990). The KIP scheme in this period was concentrated in physical improvement of urban infrastructure facilities.

C. KIP in the Third Repelita

The government implemented further KIP in an increased number of cities. In this period the improved kampungs reached 13,039.90 hectares of new areas and covered 218 cities throughout Indonesia's Provinces and served 4,060,980 inhabitants (Dept. of Information, 1979). The KIP scheme in this period called for a comprehensive programme providing the following urban services: roads and paths, clean water, bathing, laundry, and latrine facilities, garbage disposal, primary education facilities, and primary health centres.

D. KIP in the Fourth Repelita

In this period the improved kampungs reached 25,145 Hectares of new areas covering 281 cities throughout Indonesia's Provinces, and served 7,254,000 inhabitants (Dept. of Information, 1984). The government corrected some weaknesses in the earlier KIP, particularly in co-ordination of KIP with other supporting services and finance, and integrated socio-economic development programmes with community participation.

E. KIP in the Fifth Repelita

Future problems in kampung improvement are likely to include the high rate of the urban population growth, and the impossibility of keeping pace with the demand for improvement, and also the problem of falling environmental quality in the kampungs. The major priority of this next five year plan will be on slum housing areas, especially in medium and large cities. The inhabitants should take part in this programme, not only in its maintenance but also in the planning and implementation process of the projects. Therefore, the initiative of this improvement should come from the residents themselves with their own capacities. The programme will continue at a large scale for the next five year plan. The area of KIP will be reach 30,000 hectares and serve 7.5 million inhabitants.

3.6.2 The Objectives of KIP

This programme was probably the first shelter/settlement upgrading projects in developing countries, providing piped water stands, cemented drains and paths, and some small playgrounds to a few selected kampungs (Devas, 1981; Taylor, 1982; Silas, 1992). Therefore, it concerns the improving of physical urban infrastructure and services, in order to improve living conditions.

The objective of KIP has been stated as: "To improve the well being of the poorer citizens by upgrading their physical environment and increasing their access to modern municipal services" (Parman, 1977:23). This was stated more fully in the Ministry of Public Works document "Towards a National Policy for a Kampung Improvement Program" (May, 1976) as a National Programme in which :

The overall objective ... is to immediately increase the standard of living of Kampung households through implementation of an integrated physical, social and economic programme package which will:

- a) Reduce deficits in households needs of essential public services;
- b) Increase human capacity, incomes and productivity;
- c) Increase households and 'enterprises' control of capital assets;
- d) Promote social and economic stability and reduce vulnerability within kampungs; and
- e) Promote self-help and self-reliance among kampung people. (Quoted from Devas, 1981:24).

Therefore, the main issues behind the objective can be highlighted as follows: the first issue is the deprived living conditions of the urban kampungs who constitute about 60 to 80 percent of the urban population who exist without elementary forms of public services; the second issue is the encroachment of a mass of people on a limited piece of land resulting in extreme overcrowding. Put in another way, the living environment has exceeded the carrying capacity of the land; the third issue is the limited financial resources available for development; and the fourth issue is recognition that the kampung people are productive urban citizens and that their problem is actually the extremely short supply of housing which they would be able to afford (Subagio, 1986:74).

3.6.3 National Policies of KIP

Kampung Improvement Programme was taken up by the central government in Repelita II (1974-1979) through the Ministry of Public Works (*Pekerjaan Umum*) including its Directorate-General of Housing, Building, Planning and Urban Development (*Cipta Karya*), and the Ministry of Home Affairs (*Dalam Negeri*) including its Directorate-General of Local Government and Regional Autonomy (*PUOD*).

Formally, KIP was considered to be the ultimate responsibility of municipal governments, but apart from the biggest cities, they depend largely on central government funds for their development tasks and especially smaller cities need organisational and technical support as well if KIP is to be taken up at a significant scale. Therefore, as the KIP effort is to be expanded over all urban areas, the role of the central government, particularly both Ministry of Public Works and Home Affairs become increasingly important.

The Ministry of Public Works is the principal agency at the national level for developing housing and urban development programmes responsive to policy guidelines set by GBHN. The Directorate-General of Cipta Karya is primarily

responsible for the planning, programming and providing technical assistance regarding KIP to cities. This has produced a set of useful guidelines for local governments for use in preparing and executing their KIP projects. Moreover, Cipta Karya assists provincial and municipal government agencies involved in public works infrastructure, housing programmes and regional planning by providing technical advice.

The Ministry of Home Affairs is responsible for the administration and funding of the Central Government subsidy programmes to the provinces and the cities. It is further responsible for the approval of appointments, staffing and salaries for provincial and local government officials. The Directorate-General of Local Government and Regional Autonomy has a specific responsibility for the municipal governments' development programmes including the KIP. It must approve both the size and nature of such programmes after they have been approved by the city council and the governor. Moreover, the focus of the directorate will be on the physical and spatial aspects of planning and on the co-ordination and monitoring of investment required to implement the plans.

A national KIP policy includes the following considerations; first, improvement of the physical environment in providing urban services to kampung residents as a temporary solution which later on should be extended to the improvement of their houses. Second, recognising that improving human settlements not only implies physical improvement but also improvements in the socio-economic and human development aspects of kampung residents. The policy indicates that physical improvement should be integrated with improvements in the other sectors for socio-economic and human development. Third, physical improvement is considered to be the breakthrough for stimulating human development, together with revitalising the socio-economic activities of the people (Subagio, 1986:75).

In this policy, the improvement of the physical infrastructure is the first focus, very much as KIP developed in Jakarta. Moreover, it is realised that the ultimate goal of KIP is an increased standard of living which is necessary to improve health

conditions. In the future, other components may gradually be incorporated, including family planning and nutrition, and later, socio-economic programmes may supplement KIP (Yudohusodo, 1991:315).

3.6.4 Typologies of KIP

Since the first Repelita, KIP has been implemented with many differences of fund sources and characteristics of urban components. Therefore, the following section will a brief discuss on typologies of KIP that has been implemented in Indonesia, including Jakarta, Surabaya, Bandung, and other funds from World Bank, UNEP and UNICEF.

3.6.4.1 Mohamad Husni Thamrin Programme in Jakarta

The local government of Jakarta started its first large scale kampung improvement programme under the above name in 1969. It was initiated and financed by the municipality of Jakarta alone. The stated objective was to improve the well-being of the poorer citizens of Jakarta by upgrading their physical environment and increasing their access to modern municipal services (Taylor, 1975; Devas, 1981).

Since the central government and the World Bank involved in this KIP-MHT, the overall approach was a 'public works' one, programme components were purely physical, because the problems of the poor living conditions in the kampungs were reduced to the sanitary problems to be solved through the delivery of a number of physical public amenities. Consequently, the programme was very much characterised by top-down approach, in which the municipal government took the initiative, decided about design and implementation and financed the whole programme. Communications with the community took place through the Camats (sub-district heads) and Lurahs (villages heads) who were assumed to 'represent the community' (Baross, 1984).

The focus of the programmes was on improving streets, bridges, walkways and storm drainage facilities, coupled with the improvements in a public transit system.

Schools and health buildings and water and waste disposal facilities were also being constructed in this programmes.

Furthermore, since Repelita III, the approach system has changed to bottom-up approach and contributed with kampung community. Moreover, the characteristics of the KIP-MHT in Jakarta, as a case study, will be presented in more detailed descriptive in the next sub-chapter 4.5

3.6.4.2 Wage Rudolf Supratman Programme in Surabaya

The so-called W.R. Supratman programme in Surabaya was established officially in 1969. The approach essentially was a public works one concerned with physical infrastructure, like in Jakarta, and later on the central government approach to kampung improvement. This programme, however, distinguishes itself by the community self-help emphasis, both in taking initiative, planning and implementation. In particular, the community was encouraged to construct access roads, paths and other specific infrastructure in the kampungs (Turner B., 1987; Silas, 1992).

Limited financial and technical resources in Surabaya meant that the programme could only be realised successfully with a large community involvement. Initially, the government only supplied prefabricated concrete slabs and gutters on request and the community was responsible for the construction of footpaths with side drains. The attractiveness of this approach is that community contributions are matched by government funds, typically up to 50 percent of the required budget (Silas, 1992).

Since 1976, the programme had increased in scale and scope to reach the lower-income kampung communities and involved as a national KIP. It is in this area that the Surabaya government has been most successful in mobilising communities to improve and manage their own living environment.

The programme provides specific improvements at a neighbourhood level such as: a limited number of access roads with side drains; footpaths with side drains; a water supply network with a water standpipe for each 25 to 35 families; sanitary

facilities, consisting of public washing, bathing and toilet facilities or MCK (*Mandi-Cuci-Kakus*); solid waste management facilities, receptacles for solid waste, garbage carts, transfer stations; elementary schools; and public health centres or puskesmas (Turner, 1987).

The KIP-Surabaya is funded by local, provincial and central governments; World Bank loans are channelled through the provincial government. Over 1.2 million people living in Surabaya have been affected by the KIP initiated since 1976, living in kampungs covering 3,008 hectares (Silas, 1992:36). The communities provide the land and are responsible for organising the movement of dwellings, other buildings and fences where additional space is required. They also organise the operation and maintenance of the facilities provided. This has also meant that the inhabitants felt that it was their programme and this has helped ensure a good level of maintenance for the provided facilities.

3.6.4.3 The KIP in Bandung

As success was achieved in Jakarta and Surabaya, KIP was extended to other bigger cities included Bandung, a capital city of West Java. During the second Repelita, the KIP in Bandung was conceived as a projects to be replicated in specific locations over the next twenty to twenty-five years. In Bandung, about 74 percent of the population live in kampungs that have developed informally and do not conform to the city's planning or building regulations. Improvements on the dwellings undertaken by individual households sometimes reach acceptable standards, but even in those cases, the complementary infrastructure necessary for these individual improvements is too costly to conform to traditional styles, especially in the case of schools and health facilities (Soegijoko, 1985; Utoro, 1989; Setiobudi, 1990).

The KIP-Bandung is funded by the central, provincial and local government with the assistance of loan from the Asia Development Bank (ADB). Three major objectives are assigned to the projects: first, conservation and improvement of existing

housing stock by creating a public environment to encourage private investment; second, improving health and welfare facilities; and third, expanding social and economic prospects by assuming educational standards equivalent to those for the city as whole (Soegijoko, 1985:89).

The objectives under KIP-Bandung consist of a standard package: creating or improving roads and footpaths linked to the urban road network; constructing local drains that connect with the main drainage systems; piping water supply to the kampung; constructing MCK; providing garbage disposal and collection facilities; and providing health clinics (*puskesmas*) and education facilities (Setiobudi, 1990:33).

3.6.4.4 The World Bank KIP

In 1974, the World Bank entered the kampung improvement in Jakarta by providing a loan of US \$ 25 million. This first loan (Urban I) for the period 1974-1976 was succeeded by a second one, Urban II for KIP in Jakarta and Surabaya for the period 1976-1979 (US \$ 43 million). Urban III, a loan of US \$ 54 million was to cover 56 percent of the costs of KIP and KIP related projects in Jakarta, Surabaya, Ujung Pandang, Semarang and Surakarta, from 1979 to 1981. Urban IV, a loan of US \$ 43 million, was to cover seven cities projects and the extension of KIP to seven secondary cities in Repelita III (Yudohusodo, 1991:314).

The World Bank loans of Urban I was concerned with the organisational structure, design standards and programme content. There was a steering committee whose task it was to oversee the work programme of the KIP unit and to consider the annual selection of kampungs for improvement. The World Bank KIP focused almost completely on roads, footpaths, drainage, water supply, washing-bathing-latrine facilities and solid waste disposal. Schools, clinics and health posts were included in the Urban II programme. Furthermore, the training of community was also added in other loan programmes (World Bank, 1983).

It is clear that the World Bank loan facilitated a considerable extension of the programme, both in the area that was improved and unimproved. Other important aspect of the World Bank KIP is that from the beginning of the programme, the policy has been stated that no charge was made to kampung residents for the infrastructure provided. However, the land needed for roads, drains, clinics, schools and MCKs, is acquired without compensation from the local government and some residents. In many cases, parts of dwellings had to be broken down, sometimes the whole houses had to be removed. Only land needed for schools or clinics is compensated. In other cases, the Camat (sub-district head) has the power to find alternative sites or to collect money from neighbouring residents, who are supposed to gain by the improved access (Devas, 1981; Salim, 1992; Soegijoko, 1985).

3.6.4.5 The UNEP KIP

In 1977, the United Nations Environmental Programme (UNEP) initiated a project called "An integrated approach for slums and marginal settlement development". In three cities, Bandung and Surabaya in Indonesia and Manila, the Philippines, demonstration projects were started to test the applicability of the approach for the Southeast Asian region (Specker, 1981).

Improvement of low-income settlements is sought not only through upgrading the physical infrastructure, but also by improving social and economic conditions. Special emphasis was given to population and environmental dimensions, through technologies which reduce environmental degradation and promote utilisation of appropriate renewable resources, and through organisational forms that maximise popular participation in the improvement process (Poerbo, 1979:1).

The programme started in 1978 and officially terminated at the end of 1979, although certain processes and institutions continue to exist and develop. Furthermore, UNICEF was taking up parts of the UNEP-KIP and was involved in kampung improvement in a number of Indonesian cities (see subchapter 3.6.4.6).

Initially, the programme fell under the Ministry of Public Works, through Directorate of Building Research or DPMB (*Direktorat Penyelidikan Masalah Bangunan*) in Bandung, which co-operates closely with the UN Regional Housing Centre for the ESCAP region, also located in Bandung. Later this arrangement was changed. At the government level, the programme was shifted from DPMB to the Ministry of Environment, the post of field officer was eliminated and the executive responsibility was decentralised to the municipalities (Setiobudi, 1990:29).

Physical improvement was only a part of the programme. The programme concentrated on the construction of group toilets and of MCKs, the organisation of a garbage collection system, developing of meeting places ('plazas' and meeting hall) and the provision of loans for housing improvements. Also water pumps were constructed.

Other elements in the 'integrated development approach' were the establishment of consumer and retail co-operatives, vocational and non-formal education, training of community health workers, and the introduction of solar water heaters, cooking devices and water distillers

The implementation of the programme was unique. The local consultants from universities worked as closely as possible with existing community institutions, specifically the LKMD, a community development institution established by the government. The UNEP-KIP considered the LKMD to be the proper entry point into the community, since theoretically the LKMD is the interface between local government and the community. This programme was implemented in the Surabaya kampung (Kedungdora) which was centrally located and the two Bandung kampungs (Cikutra and Babakan Surabaya) which were at the city periphery. (Poerbo, 1979:12).

'Community self-surveys' were organised through the LKMD and also in planning and programming, the LKMD, or through the LKMD, the RW/RT heads or other community based organisations participated.

Therefore, the initiative did not come from the kampung residents, but from non-governmental institutions with a specific analysis of the problems of low income

neighbourhoods and of the type of solution for these, different from what is done in other governmental programmes. The two main themes of the programme, such as popular participation and institution building, asked for a special approach and make, for instance, the World Bank procedures of delivering amenities an unsuitable one. However, the fact that acceptance or even active participation of the resident population in the various programme components is a prerequisite for success in UNEP terms does not make the programme a "bottom-up" one.

3.6.4.6 The UNICEF KIP

Since the 1980s, UNICEF has been involved in KIP. The programme is specifically concerned with improving the social and health condition of the kampungs (Specker, 1981; Setiobudi, 1990). The UNICEF-KIP was unique among the programmes because it was concerned only with providing clinics, schools, training programme for women, provision of water supply and increasing family welfare, especially for people in the age group 5 to 20 years and under five (babies). Physical infrastructure was not included in this programme (Setiobudi, 1990:28).

The approach was to target groups which were to be most affected by the objectives of the KIP. Together with the Ministry of Public Works, they formulated a system that could be used in the kampungs areas. The programme was concentrated on activities which would result in healthy conditions for mothers and children. Therefore, the components of KIP included health training, education and training, house improvement, public taps, solid waste system and family planning and nutrition programme.

However, because the scope of the programme was limited, normally the UNICEF-KIP was used as a supplement to other KIPs.

3.6.5 Remarks of Implementation the KIP

To conclude this description on development of KIP, a few general comments are in order. In the 1970's and 1980's, expanded KIP projects were funded by the Government of Indonesia and the World Bank and were extended to more kampungs in Jakarta and Surabaya. Later, KIP improvements funded by other foreign loans, bilateral aid programmes, and non-government organisations (NGO's), were extended to other big cities in Java with over two million in population, like Bandung, and to a few big cities in the Outer Islands, like Medan, in Sumatera, and Ujung Pandang, in South Sulawesi (Turner, 1987; Silas, 1992; Milone, 1993).

Furthermore, KIP was designed as part of local government responsibility, with the central government serving as the technical advisor and providing the initial financial assistance. The plan was to reach 50 percent of the kampungs in any city and to extend improvement on the basis of minimum needs (Yudohusodo, 1991).

The majority of analyses and evaluation of KIP in Indonesia have generally described resultant conditions in some cities, particularly in Jakarta, Surabaya, Ujung Pandang and Bandung (Williams, 1975; Krausse, 1978; Poerbo, 1979; Devas, 1981; Baross, 1984; Taylor, 1982 and 1987; Herlianto, 1990 and 1992; Silas, 1992; Soegijoko, 1985; Patton and Subanu, 1988; Utoro, 1989; Marcusson, 1990; Milone, 1993). For these reasons, some comments from researchers about KIP are as follows: Taylor (1975:245-246) stated that:

"Jakarta is the first major low-income developing country city which has been able to mount a sustained programme at a level sufficient to catch up with both the backlog and current growth within a reasonable period of time. ... Within precisely a decade, Jakarta has come close to eliminating the backlog of unserved residential areas".

Devas (1981:19) commented that:

"the Kampung Improvement Programme in Indonesia is often quoted as an example of a successful approach to the housing needs of the urban poor. It certainly has been impressive in its scale - improving living conditions for something like half the population of the city of Jakarta".

Silas (1992a:248) note, Indonesia "has implemented the largest and longest site improvement programme in the world". Accordingly, Soegijoko (1985:85) added that "The basic idea was classic: When the physical and social facilities were improved, it would motivate the inhabitants in chain reaction style to improve their whole environmental condition, finally affecting the socio-economic development of the community".

In summing up, basic to the success of the KIP in its approach are: integration of bottom-up and top-down approaches; participation of the community in the planning and implementation stages; and integration of the various levels of financial sources (central, provincial, and local government) including foreign loans (the World Bank, ADB, UNEP, and UNICEF) and contributions by the community (land, labour, money and materials). These principles have resulted in an improvement of many big cities and small cities in Indonesia. KIP has now been in existence for two decades, during which time it has improved about 35,000 hectares of kampung area at a cost of more than Rp. 300 billion (Soegijoko, 1985).

Lastly, Silas (1992:38) comments, in terms of sustainable cities, that the KIP has received national and international attention because it addresses the basic infrastructure needs of the low-income urban population in a sustainable way. This success has been achieved by mobilising the people's own resources and by increasing their awareness of the importance of a clean and healthy living environment.

3.7 Summary

The purpose of this chapter has been to review the general background of urban development programmes in Indonesia. It focused on the background of Indonesia, long-term development policy, urban development and the kampung improvement programmes.

Indonesia has the fifth largest population of the world. Its population of 179.3 million was, and still is, very unevenly distributed over the whole archipelago. 107.6 million people, making up 60 percent of the total population, live in the island of Java alone, while the surface area of Java amounts to only 6.9 percent of the whole Indonesia area. There is no province outside Java and Bali with a population density of more than 500 people per square kilometre. All the other Indonesian provinces have population density figures amounting to at best a third of Java's figure.

In the last two decades the country has undergone enormous economic and social changes which have had profound effects upon the distribution of institutional and economic power. Like many of its Asian neighbours, Indonesia has recorded very high levels of economic growth over the last two decades (5 percent per annum). There have been structural shifts in the economy with agriculture declining in relative significance to industry. In recent years there has been a rapid expansion of manufacturing through a major shift in economic policy.

Although Indonesia has been one of the least urbanised nations of Asia, the rate of urbanisation has been very rapid with the proportion of Indonesians living in urban areas increasing from 15.5 percent in 1961 to 31.2 percent in 1990. Nearly half of Indonesia's urban population live in the two provinces in the western third of Java (West Java and Jakarta).

Most cities in Indonesia had been growing through two different processes, the formal and the informal residential forms. The formal are usually well designed and serviced with infrastructure, whereas the informal developments (kampung areas) have a mixed types of houses, and are serviced with limited infrastructure.

Government policies on urban and housing development have been directed to overcome the problems of lack of infrastructure in the informal areas, in the kampungs, and attempts to reduce the rate of growth of the informal development by providing an urban development policy included: kampung improvement, urban housing, water supply and urban sanitation programmes.

The government has made considerable efforts to provide houses for the people in a better environment. One of these included an attempt to improve environmental conditions in the existing residential areas, in the kampung, by executing the Kampung Improvement Programme (KIP).

Since the second Repelita, the government has improved and implemented the KIP throughout cities in Indonesia. The various level of financial sources have contributed in this programme such as central, provincial, and local government; foreign loans (from the World Bank, ADB, UNEP, and UNICEF) and contributions by the community (land, labour, money and materials). KIP has now been in existence for two decades, during which time it has improved about 35,000 Hectares of kampung area at a cost of more than Rp. 300 billion (Soegijoko, 1985). It has become a massive programme for delivery of basic services needed by millions of households across Indonesia, and it is now an important component of Indonesia's National Development Policy.

Meanwhile, it is realised that the ultimate goal of KIP is an increased standard of living. It is necessary to improve health condition and economy. The comprehensive policy of KIP includes improvements of physical, human and economical aspects. However, the physical aspect is predominant.

The KIP is based on the idea that sustainable local development can only be achieved by linking the public sector and the community, by mobilising the people's own resources and by increasing their awareness of the importance of clean and healthy living environment.

The next chapter will review the Jakarta Metropolitan with focused on urban growth, spatial planning, and kampung improvement in Muhammad Husni Thamrin programme.

End Notes

- ¹ 'Urban areas or Cities' are taken to mean urban settlements which play a significant role in their nations economy and are substantial concentrations of non agricultural employment. However, no range of population size can be specified and there are no internationally agreed criteria for distinguishing 'cities' from other settlements or 'urban' from 'rural' population. Every nation has its own criteria for what constitutes its urban population and these criteria may change from census to census (World Bank, 1990). Therefore, the focus is on environmental problems associated with urban settlements which are relatively being defined by urban settlements' population size.
- ² LKMD (*Lembaga Ketahanan Masyarakat Desa*) or Organisation for Community Security is headed by *Lurah*. The function and aim are to implement programmes, projects and activities in its area of operation. These activities usually originate and are guided by technical field-workers from the various departmentals. In short, the function is to co-ordinate social activities at the lowest and informal level of government in area (Karamoy and Dias, 1986:200).



CHAPTER 4

**JAKARTA DEVELOPMENT AND
KAMPUNG IMPROVEMENT PROGRAMME:
A CASE STUDY**

CHAPTER FOUR

JAKARTA DEVELOPMENT AND KAMPUNG IMPROVEMENT PROGRAMME: A CASE STUDY

4.1 Introduction

This chapter describes the overall characteristics of urban development in Jakarta as background of the study. It begins with an overview of the development of Jakarta, the housing and infrastructural aspects of the study area. The Structure Plan of Jakarta is reviewed in terms of the objectives and implementation. The urban environmental problems and the Kampung Improvement Programme of Jakarta will be highlighted as a base for further analysis.

4.2 An Overview Development of Jakarta

The development of Jakarta will be explained from the view point of physical expansion and population distribution. The area of Jakarta is located in the west of Java Island. It is the largest city in Indonesia and has become the centre for almost all major activities. It is the centre of administration, trade, finance, industry as well as tourism. This is the chief reason for the inflow of migrants from neighbouring regions and indeed the whole country.

4.2.1 Topography

Jakarta can be categorised as being virtually flat. The level of the land from the coast to the Banjir Canal rises to only 10 metres above sea level, measured from the zero survey marker located in Tanjung Priok. From the Banjir Canal to the most

southerly border of Jakarta the level of the land rises from 5 to 50 m above sea level. The low hilly land to the south of the Banjir Canal was formed in the shape of a series of river basins now existing in the city.

4.2.2 Administrative Status

Administratively, the City of Jakarta is a special territory, as a capital city of the Republic of Indonesia, namely **Daerah Khusus Ibukota (DKI) - Jakarta**. It has a province status (first level) and is managed by a Governor. Because of its special position and role, Jakarta has an important influence on the whole national territory.

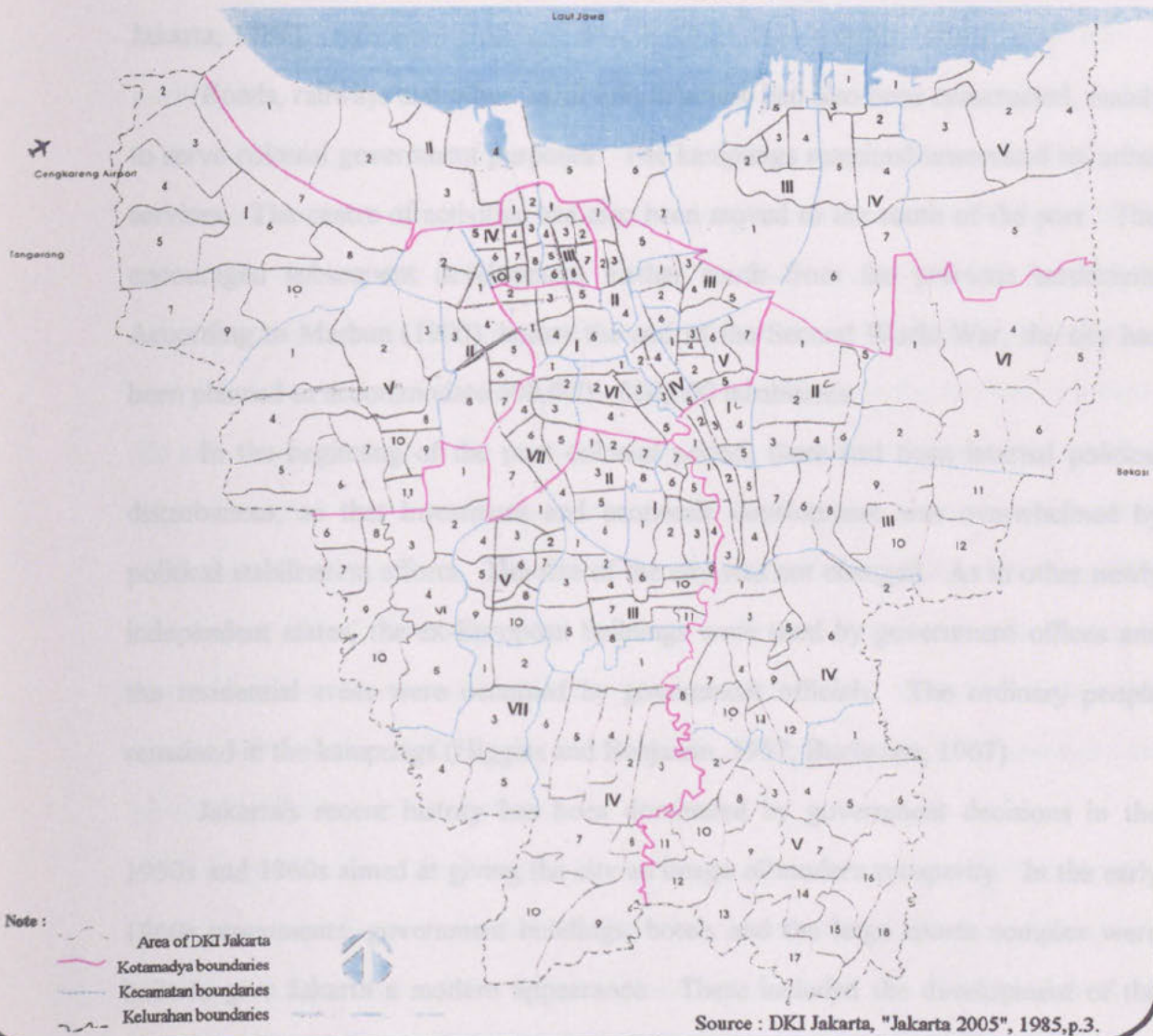
The region of Jakarta is divided into five administrative city zones: North, East, West, South and Central Jakarta (see Figure 4.1). Each zone has status as a municipality (**Kotamadya**), with 43 sub-districts (**Kecamatan**), 260 villages (**Kelurahan**). This is in direct line with the policy of encouraging involvement at the local level in the urban development process. There are 2,475 neighbourhood groups (**Rukun Warga - RW**) and 28,829 block groups (**Rukun Tetangga - RT**), which are the two informal levels of government (Statistics Jakarta, 1990).

4.2.3 Physical Growth of the City.

Jakarta traces its historical roots back to the 14th century when Prince Fatahillah conquered the small trading port of Sunda Kelapa located at the mouth of the Ciliwung River. Sunda Kelapa had been a burgeoning trading centre for several centuries before his arrival. Fatahillah changed the name of the port town to Jayakarta, an event that is now marked as the origin of the City of Jakarta.

In 1619, the Dutch overran the city and established a port at the mouth of the Ciliwung River. From this area, with two centres, the old town (*kota*) and the port area (*Pasar Ikan*), the fortress city renamed Batavia grew inland towards the South along the Ciliwung. The old centre was subject to flooding and recurring epidemics as the harbour silted up in the 18th and early 19th century.

Figure 4.1.
JAKARTA ADMINISTRATIVE BOUNDARIES



To avoid the flooding, the Dutch built government buildings on slightly higher land to the South, an area that is now the centre of the city, Merdeka Square. The land was then developed as residential areas, military base, offices and palaces. The new developments were completely exclusive from the indigenous settlements, the kampungs.

The physical growth of Jakarta has risen since 1621 from 6.1 hectares to 107 hectares in 1770, 142 hectares in 1800 and 2,600 hectares by the turn of the twentieth century. Eighty years later, the built up areas of Jakarta was approximately 35,000

hectares. Today, Jakarta has an administrative area of about 66,126 hectares (DKI Jakarta, 1987).

Roads, railways and other urban infrastructure had also been constructed, mainly to serve colonial government purposes. The kampungs remained unserved by urban services. The centre of activities had also been moved to the south of the port. This encouraged subsequent development further south from the previous settlement. According to Marbun (1990), before the end of the Second World War, the city had been planned to accommodate 600,000 - 800,000 inhabitants.

In the beginning of the post colonial period, there had been internal political disturbances, so that investment and economic development was overwhelmed by political stabilisation efforts. The size of the city was not changed. As in other newly independent states, the ex-European buildings were used by government offices and the residential areas were occupied by government officials. The ordinary people remained in the kampungs (Higgins and Benjamin, 1957; Buchanan, 1967).

Jakarta's recent history has been dominated by government decisions in the 1950s and 1960s aimed at giving the city an image of modern prosperity. In the early 1960s monuments, government buildings, hotels and the large sports complex were built to give Jakarta a modern appearance. These included the development of the Senayan National Sports Centre, National Monument and Istiqlal Mosque. Moreover, a high-income suburb, "Kebayoran Baru", was developed in the South of Jakarta and a series of limited access roads were constructed around the city.

The employment which these major projects created attracted many new workers to the city. As a result, many people from rural areas came to Jakarta and lived in the kampungs. Therefore, these massive construction activities worked as a strong 'pull factor' of the city for new migrants (Taylor, 1982; Karamoy and Dias, 1986).

The north to south direction of city growth was modified by the construction of a four lane ring road. This road provides the only rapid east-west link across the city with the exception of Ancol road in the north. The effect of its construction has been

to provide an opportunity for industrial development in the east, and to stimulate the development of residential area in an east-west direction between the new road and the existing city.

A further wave of in-migration occurred during the repression of the abortive communist putsch in 1965 - 1966. These population influxes increased densities and added to the number of existing kampung areas, comprised of low-income neighbourhoods, which had been settled in an unplanned manner throughout the city.

In this period, the development process in Jakarta and in the country as a whole did not change in terms of the types of development in residential areas. The unskilled migrants settled in the kampungs and engaged in insecure jobs, such as temporary clerks in construction work. The skilled and well educated migrants were engaged in the formal sector, including civil servants. Some were lucky enough to be accommodated in government houses although others were residents in kampungs (Devas, 1983; Salim, 1992; Benjamin and Arifin, 1985). In this period kampungs were serviced by limited urban infrastructure.

Therefore, from the planning point of view there were two different types of development in the area, formal and informal developments. Formal development activities were carried out by the government, such as the provision of shelters for government officials. Informal development in the kampungs were undertaken by individuals.

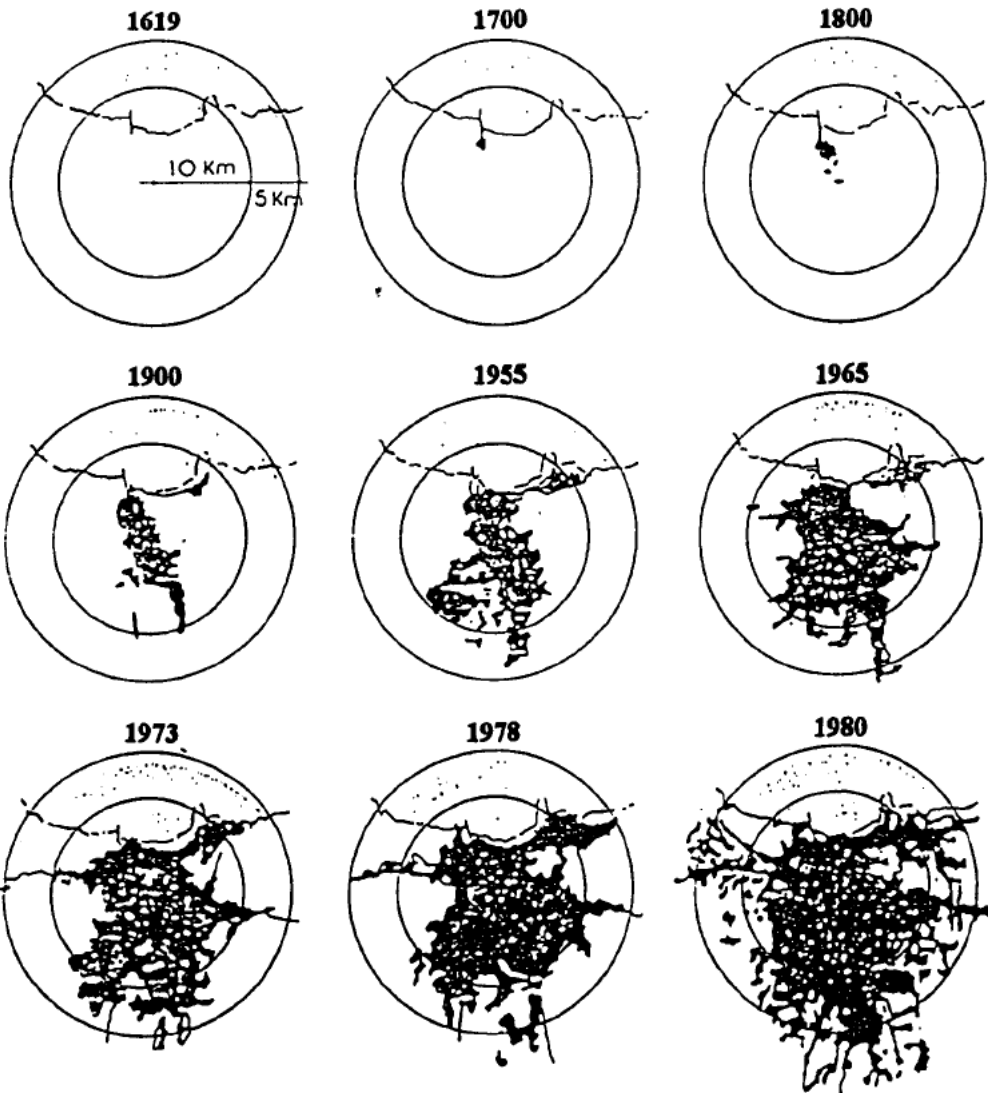
Figure 4.2. shows the physical development of Jakarta from 1619 to 1980. The city has been growing toward the southern part of the area. It also demonstrates that after 1965 the built up area in the city has been expanding rapidly. From this period until the beginning of the second Repelita, the government played a role as the main actor in the development process. Since the middle of the second Repelita, the private sector has been given a better opportunity to engage in developing the city, whether jointly with the local government or alone. The kampung has also been given more

attention through the introducing Kampung Improvement Programme - Mohammad Husni Thamrin (KIP-MHT). This will be discussed in more detail in chapter 4.5.

This successful development attracted more new migrants to the capital City of Jakarta. Although the local government has declared the city was closed to unskilled migrants in 1970s, this unrealistic policy has not worked.

Figure 4.2.

THE PHYSICAL DEVELOPMENT OF JAKARTA (1619 - 1980)



Source : DKI Jakarta, "Jakarta 2005", 1985, p.6.

4.2.4 Population and Distribution

The population of Jakarta, as the capital and largest city of Indonesia, has been growing very rapidly since the 1960s. The biggest boom in population growth occurred in the period following independence between 1945 and 1960, with a annual growth rate of 5.7 percent (Rutz, 1987).

As shown in Table 4.1, in 1961, the Jakarta population was 2.9 million, and in 1971 had increased to 4.5 million. By the end of the 1981, this figure grew to be 6.4 million, and according to the last census 1990, Jakarta's population was 8.2 million. Between 1961 and 1971, the annual growth rate was 4.6 percent, and over the next decade (1971 - 1980), the annual growth decreased to 4.0 percent. In the period of 1980 - 1990, the rates was 2.4 percent.

Table 4.1 Total Population and Annual Growth Rate of Jakarta 1961, 1971, 1980, and 1990

REGION	TOTAL POPULATION				GROWTH RATE (%)		
	1961	1971	1980	1990	1961-71	1971-80	1980-90
South Jakarta	466,422	1,050,859	1,579,795	1,905,004	8.55	4.58	1.89
East Jakarta	498,686	1,260,297	1,236,876	2,064,495	4.92	6.78	3.55
Central Jakarta	1,002,059	1,260,297	1,236,876	1,074,752	2.34	-0.21	-1.40
West Jakarta	469,543	820,756	1,231,188	1,815,316	5.80	4.56	3.96
North Jakarta	469,823	612,447	976,045	1,362,948	2.71	5.25	3.40
DKI Jakarta	2,906,533	4,546,492	6,480,654	8,222,515	4.62	3.97	2.41

Source : Census and Statistical Office, Jakarta, 1991, Table 1.1.

However, the average of Indonesia's national rate of population growth in the period of 1980 - 1990 was 1.97 percent per year (see Table 3.2). Therefore, Jakarta was growing at almost twice the national population growth rate.

Table 4.2 Density Population of Jakarta 1961, 1971, 1980, and 1990

REGION	Total Area		Density (person/hectare)			
	(hectare)	(%)	1961	1971	1980	1990
South Jakarta	14,537	21.98	32	72	109	131
East Jakarta	18,773	28.39	27	43	78	110
Central Jakarta	4,790	7.24	209	263	258	223
West Jakarta	12,615	19.08	37	65	98	144
North Jakarta	15,411	23.31	37	50	77	88
DKI Jakarta	66,126	100.00	44	69	98	124

Source : Census and Statistical Office, Jakarta, 1991, Table 1.7.

Table 4.2 shows a comparison of population densities and the proportion of total area for the region of Jakarta. The City of Jakarta has a total area of 66,126 hectares, which was, and still is, unevenly distributed in the region. Central Jakarta which occupies only 7.24 percent of the total area of the City of Jakarta and has a population density of 223 people per hectare. In contrast North Jakarta which covers 23.31 percent of the total area of the City of Jakarta has a population density of 88 people per hectare. While North Jakarta has a low population density compared with Central Jakarta, its percentage share of both agriculture and industrial land use is greater (see Table 4.4). The absolute density of the DKI Jakarta shows long-term increases. However, the rapid growth in densely populated areas has not been supported by adequate supply of infrastructure provision and facilities.

Along with the decrease in the growth rate, there has been a decrease in the overall birth, death, and migration rates since the 1960s. Table 4.3 shows that between 1961 and 1971, the crude birth rate is 39.19 per 1,000 people and the crude death rate is 11.14 per 1,000 people. In the period of 1980 to 1990, the crude birth rate decreased to 24.80 per 1,000 people and the crude death rate to 5.66 per 1,000 people.

Table 4.3 Components of the Growth Population in Jakarta

COMPONENT	PER 1,000 PEOPLE		
	1961-1971	1971-1980	1980-1990
Crude Birth Rate (CBR)	39.19	36.25	24.80
Crude Death Rate (CDR)	11.14	9.94	5.66
Net Migration Rate (NMR)	18.15	13.41	4.95

Source : Census and Statistical Office, Jakarta, 1991, Table 1.2.

Therefore, the decrease in the mortality rate has been faster than the control of the number of births. The Family Planning Programme and the General Health Programme are instrumental in bringing about many improvements. Moreover, in the period 1961-1971 the net of migration rate was 18.15 per thousand people and decreased to 4.95 per thousand people. Even though, it still increased in total of migrants but it reduced of number of migrants gradually. The urban development

aspect that reducing this situation is the regional planning of Jakarta in terms of JABOTABEK (see next subchapter 4.4.3).

4.2.5 Existing Land Use for Development

In 1990, the land use pattern in the Jakarta region is mainly characterised by 78 percent built up areas (including public buildings, settlements, industry, bridges and roads) and 13 percent agricultural use (including rice fields and forests). The remaining land use (9 percent) is comprised mainly of rivers, dams, swamps and green belts (see Table 4.4 and Figure 4.3).

Table 4.4 Distribution of Land Use in Jakarta in 1990 (in percent)

REGION	Housing	Manufacturing	Industry	Services	Agriculture	Others
South Jakarta	68.25	4.34	1.75	10.02	9.94	5.70
East Jakarta	62.55	3.44	5.30	6.36	11.94	10.41
Central Jakarta	63.82	13.52	5.05	11.39	1.36	4.86
West Jakarta	58.57	5.88	5.41	9.48	14.66	6.00
North Jakarta	39.88	7.90	15.67	5.03	21.82	9.70
DKI Jakarta	58.25	5.81	7.03	7.48	13.05	8.38

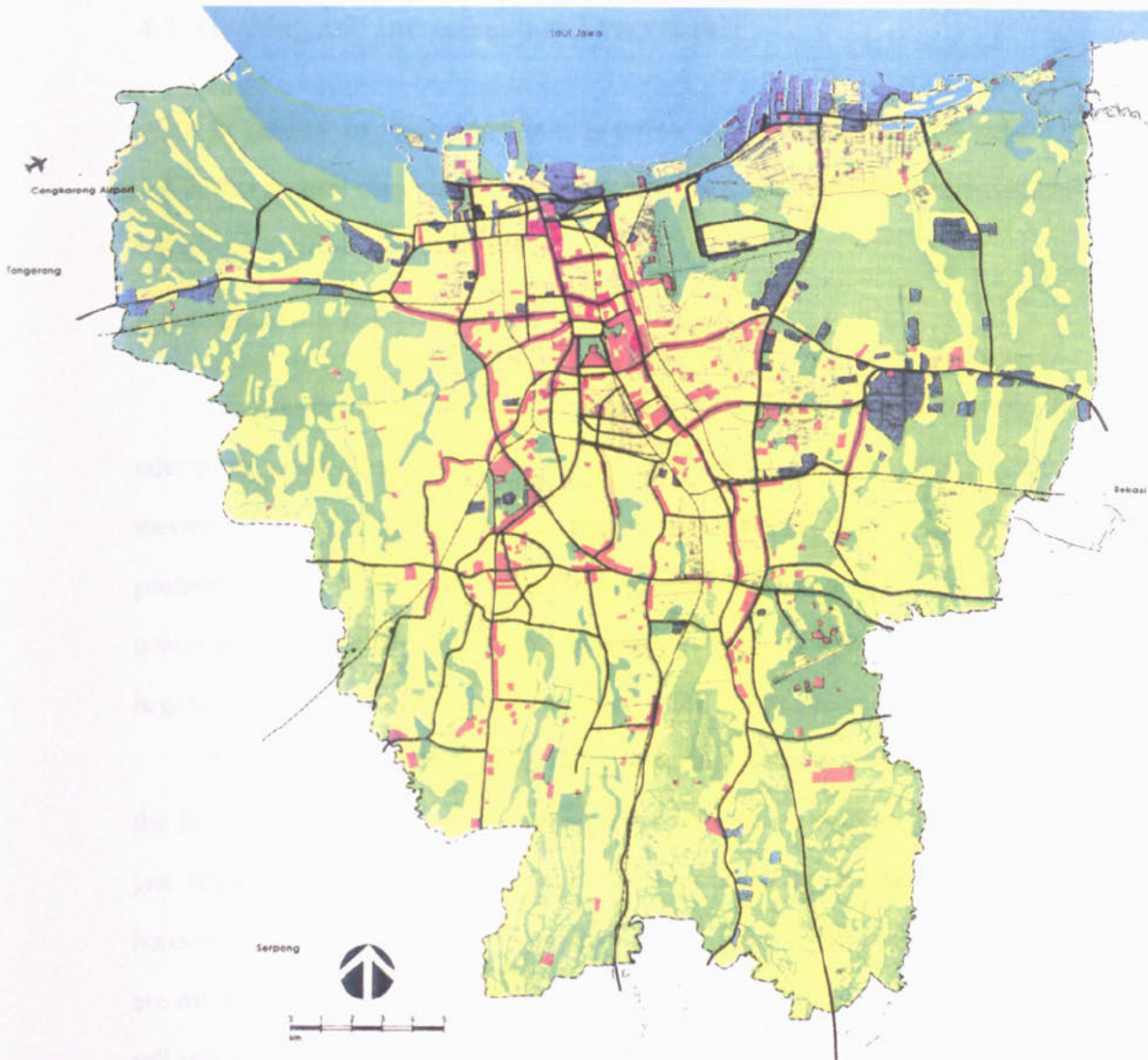
Source : Census and Statistical Office, Jakarta, 1991, Table 1.5.

Given the above basic situation, land needed for housing development, social facilities, infrastructure and other uses, is steadily increasing at a gross average of 600 hectares per annum (DKI Jakarta, 1987).

The changing land use in Jakarta for the past two decades has been too rapid as a cause of sprawling urbanisation and as a function of being the capital city of the Republic of Indonesia. As the land use patterns changed dramatically and haphazardly, the quality of the urban environment has deteriorated, specifically in low-income residential areas.













The Central Jakarta remains the national and local administrative, commercial, trade. However, its function as a residential area is declining. North Jakarta remains an industrial, harbour, recreation and residential area for the metropolis of Jakarta. In addition, more commercial and service activities expanded along the major road network.

Figure 4.3.
LAND USE OF JAKARTA 1980



Source: DKI Jakarta, "Jakarta 2005", 1985, p.13.

Information :

	Public buildings		Settlement/mixed farming		Dams/Sea
	Mixed buildings		Mixed farming		Idle Land
	Shopping centres		Park, Green belt, Graveyards		Arteries
	Housing		Ricefields		Railways
	Industries/Warehouse		Swamps and Fish ponds		

The East and West Jakarta remain a residential area and with heavy industry. The South Jakarta, what was once the major rice production area and land conservation of the city, has now become a residential and commercial area of Jakarta.

4.3 Housing and Infrastructure Programme

In respect to the urban housing policy in Indonesia, as mentioned in chapter 3.4.2, this section discusses in some depth housing and infrastructure programmes that have been implemented in Jakarta.

4.3.1 Housing Development

Inadequate urban basic services and conveniences, such as housing, hospitals, education, open space, water supply and electricity, remain the greatest failure of the metropolis of Jakarta. Social inequality is well reflected in housing conditions. This problem is reflected not only in the rocketing rents a prospective house or room occupier has to pay but also by the fact that, even in high-class residential areas, there is great overcrowding (Karamoy and Dias, 1986; Sivaramakrishnan and Green, 1986).

According to Shefer (1990), housing has increased in political importance within the last decade, however the administrative capacity to support government action is just beginning to develop. In general, the population of Jakarta lacks high quality of housing. For instance, residents pay almost one-third of their income for housing but are essentially unable to sustain a housing industry that would buy land, improve it, and sell ready to occupy houses.

Table 4.5 reveals the housing and basic services condition in Jakarta. According to the Central Bureau of Statistics (1990), "permanent houses are made from solid walls, cement floors and tiled roofs. Temporary houses are made from bamboo matting walls, earthen floors and thatched roofs. Semi-permanent houses have some combination of temporary and permanent materials". In 1990, the total housing stock

in Jakarta consisted of 41 percent of permanent houses; 35 percent of semi-permanent houses; and 24 percent of temporary houses.

Table 4.5 Housing and Basic Service Condition in Jakarta in 1971, 1980 and 1990.

INDICATOR	1971	1980	1990
Population	4,546,992	6,480,865	8,222,515
Household	849,550	1,164,082	1,740,213
- Average number of persons per household	5.4	5.6	4.7
Housing Stock	463,864	910,482	1,318,628
- Number of persons per housing unit	9.8	7.1	6.2
- Number of household per housing unit	1.8	1.3	1.3
Housing deficit	385,686	253,600	421,585
Ownership (%)			
- Own	59.7	63.4	79.8
- Rent/Lease	24.9	21.5	18.7
- Others	15.5	15.1	1.5
Housing type (%)			
- Permanent	33.3	39.1	40.6
- Semi-permanent	30.6	32.0	35.5
- Temporary	36.1	28.9	23.9
Electricity and Light facilities (%)			
- Electricity	31.3	48.7	95.6
- Traditional lamp	68.6	50.8	4.3
- Others	0.1	0.5	0.1
Source of Water supply (%)			
- Piped	44.5	39.2	46.0
- Pump	14.5	34.2	43.2
- Well	40.4	24.9	9.2
- River	0.1	0.3	0.2
- Rain	0.1	0.2	0.1
- Others	0.4	1.2	1.3
Energy for Cooking (%)			
- Electricity	0.7	1.1	1.9
- Gas	0.2	3.0	13.8
- Petroleum Oil/Kerosene	85.2	92.1	81.6
- Wood/Coal	13.4	3.2	2.0
- Others	0.5	0.6	0.7
Housing size (%)			
- less than 30 m ²	29.6	28.1	29.2
- 30 to 49 m ²	27.4	26.8	20.8
- 50 to 99 m ²	40.1	31.0	28.7
- more than 100	2.9	14.1	21.3

Source: Adopted and calculated from;

1. Central Bureau Statistics, *Analisa Keadaan Perumahan di Indonesia*, March 1985.
2. Statistic Office DKI Jakarta, *Penduduk DKI Jakarta; Hasil Sensus Penduduk 1990 Pencacahan Sampel*, February 1992.

The statistics, therefore, indicate that the current housing problem in Jakarta is dominated by houses classified as semi-permanent and temporary (i.e. 59 percent).

This housing is mainly located in areas needing large investment for the provision of social facilities and infrastructure. There are insufficient rooms, bathrooms, toilets, water sources and other amenities. These areas are often flood-prone neighbourhoods where the soil bearing capacity is poor and the ground water is polluted.

In spite of the poor quality of houses in Jakarta rents keep on rising because the supply of residential quarters is grossly inadequate. Rent edicts designed to standardise house rents and to keep them low have not succeeded. The study of Hasfarm Dian Consultants and the Urban Institute (Alisjahbana, 1990:3) observed that the number of houses which were estimated to be improvable was about 734,210 units, or 45.12 percent of total housing stock. Only 5.92 percent of total housing stock was considered to be non improvable. It was also estimated that a further 40 percent of the existing housing stock was in fair condition, while the remaining 10 percent was in good condition.

According to 'Structural Plan of Jakarta' (DKI Jakarta, 1987:31), 25 percent of the housing demand can be supplied from the formal institutions, such as real estate developers, PERUMNAS, the private sector using loans from BTN, and government agencies. The rest, or 75 percent, is fulfilled by people's initiatives, and the majority is provided by the low income groups.

Despite efforts by government bodies to increase housing supply as noted by certain quotations included in Chapter 3 above, as noted in Table 4.5, such increases have not kept pace with increases in demand. Due to continuing high level's of immigration, but particularly the need to replace poor quality housing, it is apparent from that table that, for example, between 1980 and 1990, the housing deficit in Jakarta nearly doubled. This contrasts with the changes between 1971 and 1980 when real progress appears to have been made.

Therefore, the publicly-financed housing supply could not reach the lower income group. It is due to the location of the projects which are far from the urban

centre and jobs. Most of low income groups still live in kampung areas near their work places (Yuniarto, 1992).

4.3.2 Infrastructure Development

Infrastructure and services are an acute problem in all Indonesian cities. At no stage has the infrastructure of Jakarta been adequate for its population.

Wood (1986:223) illustrated a graphic picture of the infrastructure situation:

"Jakarta's rapid population growth has created serious infrastructural problems: groundwater sources, on which the majority of Jakarta residents rely for drinking water, are often polluted; frequent floods inundate many kampungs; only half of the city's garbage is collected, the remainder is left in vacant lots, roads and drainage canals; there is no separate water borne sewer system; and most families live in temporary and semi permanent structures with no private toilets, electricity or piped water."

4.3.2.1 Water Supply

Water supply presents a great problem in developing countries, and Jakarta is no exception. Piped systems are considerably less common in Jakarta than other capital cities in developing countries, and ordinary wells are not a viable option, since much of the ground water is contaminated by encroaching sea water or surface pollution sources.

As Smith and Lee (1993:171) note urbanisation and associated industrialisation can result in over pumping of groundwater, leading to lower water tables and land subsidence and, in coastal areas, saltwater intrusion into the aquifers. This process decreases access to clean water by lowering supply and increasing contamination. Thus, urban residences served by traditional supply systems, such as local wells or groundwater pumping, are at health risk from the rapid introduction of industrial water demand that often accompanies urbanisation.

In fact, whereas wells and piped systems are the main water sources in most cities in Indonesia, in Jakarta they rank well behind both pumped water or deeper wells and water distributed by peddlers. According to Struyk (1990 : 52-53), one-third of Jakarta households pay peddlers to supply them with clean drinking water and some

pay four times as much as others. Furthermore, 10 percent need peddlers to bring them even their water for other purposes.

The present condition of water supply in Jakarta is unsatisfactory. Less than 46 percent of the population receive piped water from PAM (*Perusahaan Air Minum*), while the remainder use groundwater and surface water. Much of the population still use drainage canals for bathing, laundering and defecating (see Table 4.5).

Shallow and deep groundwater aquifers have been used by the people of Jakarta for a long time. With the rapid growth of the population and the increase in industrial activity and construction of high rise buildings, the condition of the groundwater has seriously deteriorated. Depletion of groundwater resources and intrusion of salt water into the aquifer, together with land subsidence, is now a recurring problem. Over exploitation of groundwater resources will disturb the ecological balance, a situation difficult to reverse.

A total of 129,745 subscribers take deep groundwater from artesian wells (DKI Jakarta, 1987:14). The total number using shallow groundwater is far larger than this, although it is not yet been accurately recorded.

From the research of Struyk et al (1990 :51) it was found that 83 percent of households in urban areas of Jakarta obtain both types of water from the same source, although the water for drinking is typically boiled first.

4.3.2.2 Sanitation

The sanitation or system of drainage and sewerage disposal in Jakarta is poor. There is no water borne sewerage system, consequently, the community improvised an open drainage system, which emits a foul odour. Only in the Sub district Menteng, a part of Municipality of Central Jakarta, is there a close drainage system. Basically, every houses has a septic tank system for toilet facilities. However, the others still use pit-latrines, cesspools and ditches along the roadside. Moreover, the open canal or river is a health hazard requiring immediate attention because the waste flows into these open canals or rivers. Therefore, sewage disposal is a big problem in the rainy

season. Especially in kampung areas, it always floods because people usually throw the garbage to the open drain, and they do not maintain the facilities.

4.3.2.3 Solid Waste

Inasmuch as the problem of sanitation is closely related to garbage collection and solid waste disposal. The major factors contributing to increased urban solid waste generation are the growth in population and rising standard of living. Currently, municipalities have the responsibility to collect and dispose of waste generated from all urban areas. However, the amount of waste generated is much more than the capacity of the authorities to handle in terms of collection and the location and method of disposal. Even for the solid waste it is able to collect, the authorities faces problems with sites and methods of disposal. Current dump sites are quickly filling, location of new sites is difficult, and current methods of dumping give little protection from leaching of pollutants into the soil and water.

Struyk et al (1990:54) wrote that garbage collection is provided to 40 percent of households, but is considerably more common in Jakarta than other cities. They mentioned that over half of households report that they pay the RT/RW (neighbourhood administration) for waste disposal. Eighteen percent pay Dinas Kebersihan (Department of Public Cleansing). Eleven percent pay others and the remaining receive the service for free. The others are not collected and ends up in canals and rivers and along the roadsides where it clogs drainage channels and causes extensive flooding during the rainy seasons.

Primarily in the kampung areas, as a poorer areas of the city, is generally have the least inadequate garbage collection service, or no service at all.

4.4 Jakarta Structure Plan Review

According to the regulation No. 4 of 1980 of the Ministry of Home Affairs, a master plan and structure plan should be a guide to the planning and implementation of urban development in a particular area. It should be a comprehensive and integrated

planning document that gives an analysis of the present situation in terms of population characteristics, the local and regional economy, development objectives and land requirements for the physical structure of future urban growth.

The first guidance plan in Jakarta was prepared in 1957 by a team of experts from the United Nations together with Indonesian planners and local government of Jakarta, namely the '**Outline Plan 1957 - 1977**'. The second plan was prepared by local government with assistance from the UNDP (United Nations Development Programme), called '**Master Plan 1965 - 1985**'. Today, the new guidance plan in Jakarta is '**Jakarta 2005**', and prepared by inter-departments of central government (Department of Public Works, Department of Home Affairs and Bappenas¹) and the World Bank, with the formulation of the **Jakarta Structure Plan** for the period 1985 - 2005 (DKI Jakarta, 1987, Marbun, 1990).

The Structure Plan for Jakarta which was prepared in 1983 is the legal basis for guiding development in the capital at this time. It comprises a statement of the existing situation, lists the development objectives and targets to be achieved over a twenty year period (1985-2005), identifies the main constraints, shows the development strategies, physical development concepts and proposals for future development and provides guidelines and standards.

4.4.1 Objectives of Urban Planning in Jakarta

The main growth strategy has been detailed in the new Structure Plan 2005 which deals with the urban development growth for the period after 1985. It will direct growth of the city to the east and west and north-east and north-west. This development growth strategy has been evolved in direct response to the needs for environmental and water resource conservation for Jakarta and in particular the aquifer recharge areas to the south of the Jakarta.

Considering the growth of Jakarta city, there is a large demand for urban land due to urban development. Jakarta 2005 observed that more than 60 percent of the

built up area is occupied by residential uses (DKI Jakarta, 1987). In the event that the trend of urban growth remains the same as in the recent development, soon after that by the year 2000, it will be difficult for Jakarta to manage the future demand for urban land. Some problems which will have to be faced are that the built up area of Jakarta will not be able to cope with the increase of population and development.

Therefore, the objectives of the structural development of Jakarta, in accordance with the objectives and targets of regional development as stated in 'Jakarta 2005' (DKI Jakarta, 1987:17), are as follows:

1. To create and realise the development objectives of the region, i.e. to improve both the material and spiritual welfare of the society of Jakarta in an environment which is secure, harmonious orderly and dynamic;
2. To encourage development in the surrounding areas in various sectors, based on mutually supporting principles;
3. To support the creation of lifestyles that are materially and spiritually balanced;
4. To create an appropriate healthy and peaceful living environment which is supported by public recreational and entertainment facilities; and
5. To provide opportunities for the development of culture and the arts as well as new jobs which will not disturb the efforts to preserve the ecology and environmental balance of the surrounding areas.

4.4.2 Implementation and Impact of Urban Development

As mentioned in chapter 4.3.1, given existing housing conditions in Jakarta, the majority of people are housed in semi-permanent dwellings in kampungs.

The Jakarta 2005 (DKI Jakarta, 1987:31) states that the basis of development policy should be: First, the government together with the local inhabitants and private business enterprises, are charged with providing new houses and repairing and renewing existing homes. This would be done in stages, by encouraging inter-group activities and providing inter-sectoral subsidies.

Second, housing environments which are too crowded and in an unsatisfactory condition should be improved through urban renewal and houses in kampungs which are in a bad condition should be improved and rehabilitated through the Kampung Improvement Programme, with contributions from the local people.

Some of the objectives and strategies have been implemented, particularly roads and housing development. However, there are many national and local programmes which have been carried out which were not anticipated in the plan. For instance, there was a housing boom in the early 1980s and an industrial boom in the late 1980s. There was some plans for infrastructure, however, which were expected to have been already implemented. In fact, this infrastructure does not exist (Budihardjo, 1992).

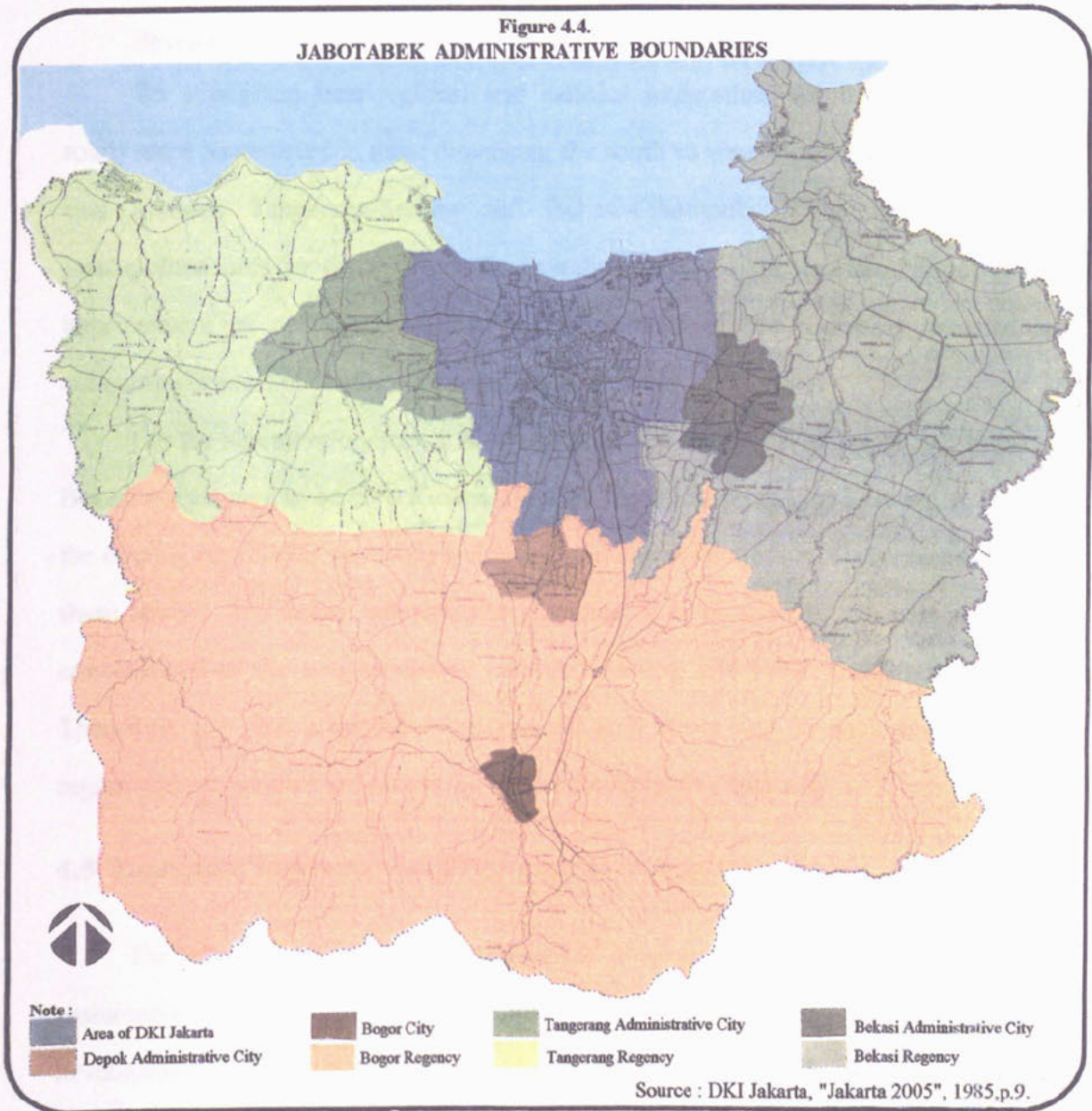
One example of the impact of this structure plan is seen in the development of South Jakarta, which is an attractive area for housing development. When it is considered from the ecological point of view, particularly with regard to the issue of conserving groundwater resources, it is seen to be an environmentally sensitive area. Moreover, if this area were to become more developed, surface water pollution would increase in the northern portion of this area and there would be an increase in traffic congestion on the existing road network.

Furthermore, the increasing demand for sites has pushed up the price of land in the inner city beyond the economic capacity of housing developers to meet the middle and low income groups' housing demand. New residential areas for high income groups are also being driven from the city centre due to high land prices.

4.4.3 Regional Planning of Jakarta

In the early 1970s the Directorate of City and Regional Planning, Ministry of Public Works recognised that the growth of the City of Jakarta has affected the neighbouring kabupatens, namely Bogor, Tangerang, and Bekasi. The Jakarta Master Plan 1965 - 1985, which was concerned only with the City of Jakarta had to be reviewed. After a long process, in 1976 the President instructed the Minister of

Economic and Finance, as the chairman of Bappenas, and the Ministers of Home Affairs and the Ministers of Public Works, to prepare such a plan which covers the City of Jakarta and its neighbouring kabupatens, namely the **JABOTABEK** (an acronym of the City of **JA**karta, the districts of **BO**gor, **TAN**gerang, and **BE**kasi) (President Instruction No. 13/1976), as shown in Figure 4.4.



The specific objectives of the Jabotabek Plan has already been stated in the attachment as follows:

- a. To lessen the development pressure of industry and trade in the City of Jakarta.
- b. To speed up development in other growth centres such as Bogor, Tangerang and Bekasi to be more attractive to investors and home seekers.
- c. To concentrate the provision of urban infrastructure in the designated centres, hence to direct investment.
- d. To use local resources, allocated local budgets of the administrative regions, for developing Jabotabek region.

To strengthen inter-regional and national integration, for transportation, toll roads were constructed in three directions, the south to ward Bogor, and the east-west axis towards Tangerang-Serang and Bekasi-Cikampek. The roads link the metropolitan area to other provinces including those in the Sumatra island. The improvement of collector roads to the south-west of the region is intended to encourage farmers to produce more agricultural yields.

For the new development, it has been proposed that north of Bogor and south of Bekasi are planned to be New Towns, namely Depok, Serpong, and Klender, to absorb the coming population, particularly housing and industrial areas will be concentrated in these towns. For heavy industrial development, it is directed to the east-west axis concentrated in the two secondary centres Cikarang and West Tangerang-Balaraja. Therefore, the plan proposed more specific land allocations in each administrative region and programme projects to be undertaken by every authority.

4.5 Kampung Improvement Programmes in Jakarta

The following section will examine a KIP in Jakarta as background for analysing sustainable urban development. The first subsection refers to its historical development and is intended to highlight the cultural, social and environmental condition of urban kampung Jakarta. The second subsection examines the planning objectives and strategy of KIP. The third subsection examines the planning process and the improvement of the programme's.

4.5.1 Background of Urban Kampung in Jakarta

In reference to the kampung definition and type of settlement, as mentioned in chapter 3.5, this section discusses in general a socio-cultural characteristic, social services and environmental conditions in urban kampungs of Jakarta.

4.5.1.1 Socio-Cultural Characteristic

The Indonesia people who made up the Indonesian nation are pluralistic and consist of a combination of multi-ethnic as well as a racial entities, each with its own cultural heritage and socio-cultural manifestations. These entities are being held together by political, economic and defence integrity.

Kampungs are often populated by people with certain shared socio-cultural characteristics. Traditional kinship ties often play an important role in the economic survival of low-income urban families. The ethnic composition of the people in Jakarta is heterogeneous, most people are migrants to Jakarta. This reflects the situation in urban kampung and metropolitan Jakarta as a whole.

According to the last census 1990, only 32.5 percent of heads of households claimed to originate from Jakarta. The majority, 67.5 percent, came from outside Jakarta. Of this, 51.1 percent were from Java island (the majority population of Indonesia), followed by 11.5 percent from Sumatera. Of those remaining, 1.7 percent were from Kalimantan, 1.8 percent were from Sulawesi and 1.4 percent were from the other islands of Indonesia (Central Bureau Statistics, 1990).

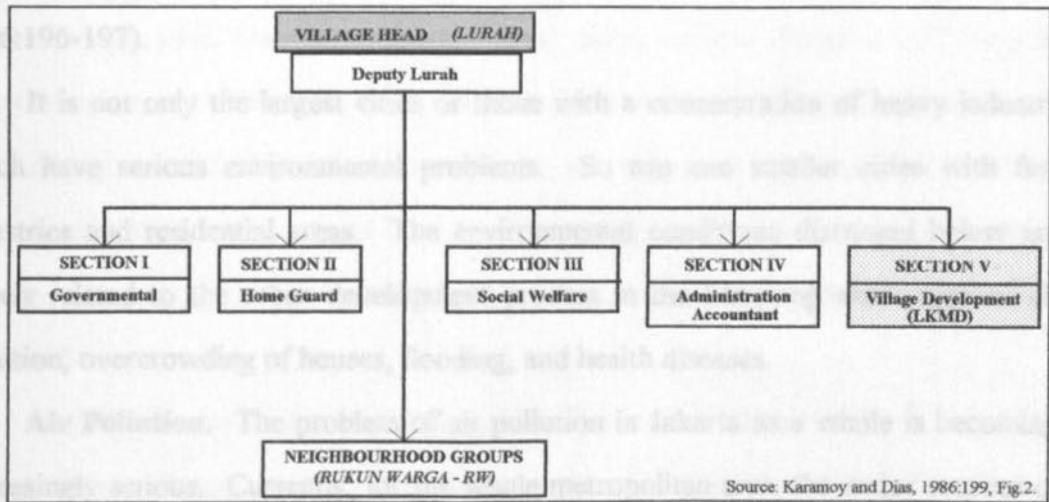
One of the most important traits of the people of Indonesia is '*Gotong Royong*' or mutual-help as it is practised in Indonesia social life. This means that families and members of the community work together in a kind of mutual-help programme. *Gotong Royong*, a dynamic means of strengthening the bonds of the urban community, is the spirit behind many a neighbourhood improvement project. This mutual-help policy extends into assisting to build a neighbour's house or being of support when there is a family tragedy.

4.5.1.2 Social Services in Kampung Areas

In respect to the administrative structure of the Government of Indonesia, as mentioned in chapter 3.2.2, the government plays a very important role in delivering social services to its population, both in rural as well as urban areas. The main government departments involved in administering these services are the Department of Social Affairs, Department of Public Works, Department of Home Affairs, Department of Education and Culture and Department of Health. All of these Departments work closely with voluntary agencies, non government organisation and international agencies. To understand the social services available to the urban kampung, the administrative structure of the kelurahan or village will be described as all government programmes have to pass through the kelurahan or village office. The kelurahan is the smallest governmental administrative unit. Its position in the administrative hierarchy was shown in Diagram 3.1 - Chapter 3. The mayor assists the governor in executive matters pertaining to the kelurahan.

In general, social programmes that have been outlined and decided upon in terms of policy and legislation by the various government departments are channelled downward to the municipal level office (kotamadya) found in each mayor's office. Each office then channels downward the various government programmes to the sub district level (kecamatan) and finally to the community level in the kelurahan. In terms of distributing services to the people, most programmes are available to the masses through the kelurahan office, whereas others are available thorough the kecamatan office. In terms of policy, therefore, the role of the lurah (head of a kelurahan) is simply that of an administrator, although they have the authority to allocate funds, put programmes into action, and recruit staff to head various sections. All programmes that are channelled downward from various government departments are accommodated and co-ordinated by what is known locally as the organisation for community security or LKMD (*Lembaga Ketahanan Masyarakat Desa*), headed by the lurah (see Diagram 4.1).

Diagram 4.1
Kelurahan Organisational Structure



These social activities are usually aimed at fulfilling the basic needs of a certain group, i.e. food, clothing, and housing. These are followed by health and education. At the level of the kampung community, the LKMD section concentrates mainly on social welfare activities and activities for youth, increasing incomes through cooperatives, and skill-upgrading projects. To implement its activities, the LKMD collects funds and obtains labour from volunteers within the community. It also receives funds from the government, both central and local, as well as from other sources, such as charitable contributions. Voluntary contributions from the community are defined as mutual-help activities (*gotong royong*).

4.5.1.3 Environmental Conditions in Kampung Areas

The Kampung areas have been a distinctive feature of Jakarta since its early days. They still cover about 70 percent of the total built up area of the City of Jakarta. A 1969 survey of Jakarta housing conditions demonstrated the inadequacy of urban facilities and services in these kampungs: 65 percent of the houses had no private toilet facilities, 80 percent no electricity and 90 percent had no piped water connection (Taylor, 1982:240). Also in this period, the housing conditions in the kampungs, 24 percent consisted of permanent houses with solid walls, cement floors and tiled roofs; 44 percent were temporary houses with bamboo matting walls, earthen floors and

thatched roofs; and 32 percent were semi-permanent structures having some combinations of temporary and permanent materials (Sivaramakrishnan and Green, 1986:196-197).

It is not only the largest cities or those with a concentration of heavy industry which have serious environmental problems. So too can smaller cities with few industries and residential areas. The environmental conditions discussed below are closely related to the urban development process in the kampung areas such as air pollution, overcrowding of houses, flooding, and health diseases.

Air Pollution. The problem of air pollution in Jakarta as a whole is becoming increasingly serious. Currently, for the whole metropolitan area, the major sources of air pollution are industry, fuels for cooking and electricity generation, solid waste disposal and motor vehicles including cars, buses, trucks and motorbikes. In kampung areas, the sources of air pollution are somewhat different, reflecting local conditions, such as over-crowding and lack of infrastructure. The most serious effect of air pollution in kampung areas is the smell from uncollected of solid waste and stagnating water and waste in the drains. In the dry season, when there is insufficient flow in the drains to drain off wastes, the air has a serious smell and suggests the presence of a health hazard to the community. Crowded and cramped housing sites are also a problem in homes with inefficient stoves burning solid fuels or cooking appliances allied to poor ventilation which restrict the circulation of clean air.

Overcrowding of houses. A characteristic shared by most kinds of housing used in kampung areas is over-crowding, with poor ventilation, lack of rooms, cramped conditions which mean that diseases such as tuberculosis, influenza and meningitis are easily transmitted from one person to another. Household accidents are also common when five, six, seven or more persons live in one room and there is little chance of giving the occupants, especially children, protection from fires or stoves. Furthermore, house sites, structures and surrounds increase the risk of burns, scald, cuts, bites and injuries in and around the house.

Flooding. One of the most serious problems in both cities and kampungs is flooding. As a result of the generally low level of the land, plus the fact that many of the kampungs were constructed on swampy areas, serious flooding is a regular occurrence in many of the kampungs. Natural flooding occurs in the rainy seasons as a result of high rainfall, flow of upstream water, and inflow of sea water. The present network of canals and drains is quite inadequate to cope with such occurrences, a situation exacerbated by the fact that many of the canals and drains become clogged with solid waste.

Health Diseases. As might be expected, many of those in the low-income groups with inadequate sanitation experience chronic health problems. The leading causes of death are pneumonia, child malnutrition, bronchitis, tuberculosis, rheumatic fever, and cholera. Mostly in the kampung areas, the ill effects on health resulting from water supply and air pollution have been felt disproportionately by low-income groups, who have no alternative to overcrowded slum and squatter settlements. Therefore, overcrowding, poor ventilation, lack of clean water supply, a high density of insects and rodents, lack of waste disposal facilities, and poor drainage are factors which generate a range of diseases. As Hardoy, Mitlin and Satterthwaite (1992:37) mention, there are three kinds of environmental problem in relation to the home, workplace and neighbourhood. These are pathogens or pollutants in the human environment which can damage human health; shortages of natural resources essential to human health; and physical hazards within the city. These are all environmental problems amenable to human intervention and have strong inter-associations among them.

4.5.2 The Planning Objectives

The local government of Jakarta recognised these kampungs as permanent settlements and became increasingly concerned about the deterioration of their condition. Aware of having limited fund and facing so many other problems, the local government was trying to solve the problems by bringing the constraints up, and

deciding on solutions. The first step was to provide for the basic needs of the people, such as sanitation and infrastructure, and lately reinforced with other facilities including health clinics and primary school buildings. This programme was the first really substantial programme in the country which was established in 1969, by the Governor of Jakarta, Ali Sadikin and called 'The Kampung Improvement Programme - Muhammad Husni Thamrin²' (KIP-MHT).

The planning of the KIP in Jakarta has been guided by the specific objectives:

1. To build the main requirements for the city population, such as roads, footpaths, drainage, sanitation, drinking water supplies, primary school buildings and health clinics;
2. To identify the poorer part of the population which has suffered from inadequate environmental conditions;
3. To draw up a programme of investment which can be enjoyed by the widest section of the population; and
4. To encourage the population to realise its potential for self-sufficiency and cooperation within their own kampung (KIP Unit DKI Jakarta, 1991:2).

This is the prime objective of KIP-MHT. Moreover, the KIP-MHT is particularly necessary for two groups of the kampung population. They are the people who comprise firstly the lowest level on the income scale, with monthly salaries of Rp. 30,000 or less (1978 prices). The second group generally has slightly higher incomes who are in regular but low-paid employment. The improvement of their housing environment, however, can improve the use value of their houses without disrupting their livelihoods (Utoro, 1989).

The support from the people is because of the provision of the components which were their basic needs, and they could directly utilise without leaving their environment. The government statement that improved kampungs would not be changed in plan, was "blowing as a fresh breeze". In general, the improved kampungs brought a peaceful and comfortable life for the people, and the most interesting thing is because the improvement is implemented 'in situ', without changing the existing social structure (KIP Unit DKI Jakarta, 1991:3).

4.5.3 The Planning Strategy

The main strategy in the KIP-MHT: first, is to create an optimum environmental condition which is stimulating and development oriented in accordance with people's conditions; and second, is to create conditions which would enable people to improve their lives and help cultivate positive attitudes towards development (Subagio, 1986:85).

Since KIP-MHT began in 1969, this project has developed and changed three times in terms of strategy, concept and design used in implementation. There are project KIP-MHT 1 in the period of Repelita I, II and III (1969 - 1984), project KIP-MHT 2 in the period of Repelita IV (1984 - 1989) and project KIP-MHT 3 which starts in the beginning of Repelita V.

Table 4.6 Planning Strategy of Project KIP-MHT 1 to KIP-MHT 3

PROGRAMME	SUBJECTS	LOCATIONS	INDICATOR	APPROACH
KIP-MHT 1 (1969-1984)	Basic infrastructure and facilities for enhanced settlement	Scattered	-services and goods accessibility and mobility -health quality -welfare level	-participation -integrated services
KIP-MHT 2 (1984-1989)	Infrastructure and utilities along river	-focus on up stream until down stream level -ex KIP-MHT 1	-flood area and time duration -health quality -welfare level	-inter-department -macro-micro system
KIP-MHT 3 (1989-1994)	-Infrastructure -Social and Economic institution -Community participation	-ex KIP-MHT 1 and KIP-MHT 2 -sub district level	-effective and efficiency resources -social and economic institution level -productivity -income level	-participation -sense of belonging responsibility and solidarity -local and central government co-ordination

Source : KIP Unit DKI Jakarta, 1991, Table 1, p.4.

Table 4.6 shows the different periods and specific projects implemented under the KIP-MHT. In the period of KIP-MHT 1, the City of Jakarta provided a very limited financial support for housing development, community participation and integrated services. The development objectives included the provision of services and goods, improvement in accessibility to social services or facilities, and improvement in

health quality and social welfare. Therefore, the City of Jakarta decided to improve the kampung areas particularly in physical infrastructure. Upgrading slum settlements was the idea in this period.

KIP-MHT 2 was concerned with the local government of Jakarta which gave priority to the development of the area of kampungs along a river, where population density was extremely high and located in the inner city. The main strategy of development was urban renewal. The government destroyed the housing in this kampung and started building walk-up flats. Such plans have been implemented in the kampungs Tambora (960 units) and Karanganyar (600 units). However, only three percent of the original inhabitants decided to stay in the new flats. This low rate has been attributed to economic, social, cultural and political factors (Rais, 1991:9).

The difference between the KIP-MHT 1 and KIP-MHT 2 periods is that projects implemented in the later period did not receive foreign financial support and technical assistance. Without foreign financial support, the programme became too expensive for the government to finance from its budget allocation. In addition, most of the low-income people were not familiar with life in flats. As a result, only the middle-income stayed in such buildings. Moreover, the disadvantage of these projects was that they have failed to benefit low-income households because they could not afford the monthly rent. The people who owned houses preferred to stay or remain in their present conditions, because they did not have to pay rent. Since the project was financed by limited public funds, it could not be developed on a large scale and it created social jealousy (Darrundono, 1988; Rais, 1991).

Therefore, in the project KIP-MHT 3, the objective and strategy were changed again and returned to the previous strategy in KIP-MHT 1. There are three concepts that should be established including: development of environment, social and productivity. This programme is more concerned with community participation, developing a sense of belonging, responsibility and solidarity of the kampung's people and co-ordination between local government and inter-department.

Facing these conditions, the local government of Jakarta now is trying to find other solutions and by looking at the constraints such as: coping with the fast development in the suburbs through KIP policy, with some modifications which will be implemented; and two steps will be taken to cope with the improved kampungs. First, those which are economically and aesthetically strategic, will be renewed by involving private fund. Second, where most of the low-income people live, the programme will be on generating the potential within the community itself (KIP Unit DKI Jakarta, 1991:11).

4.5.4 The Planning Process and Implementation

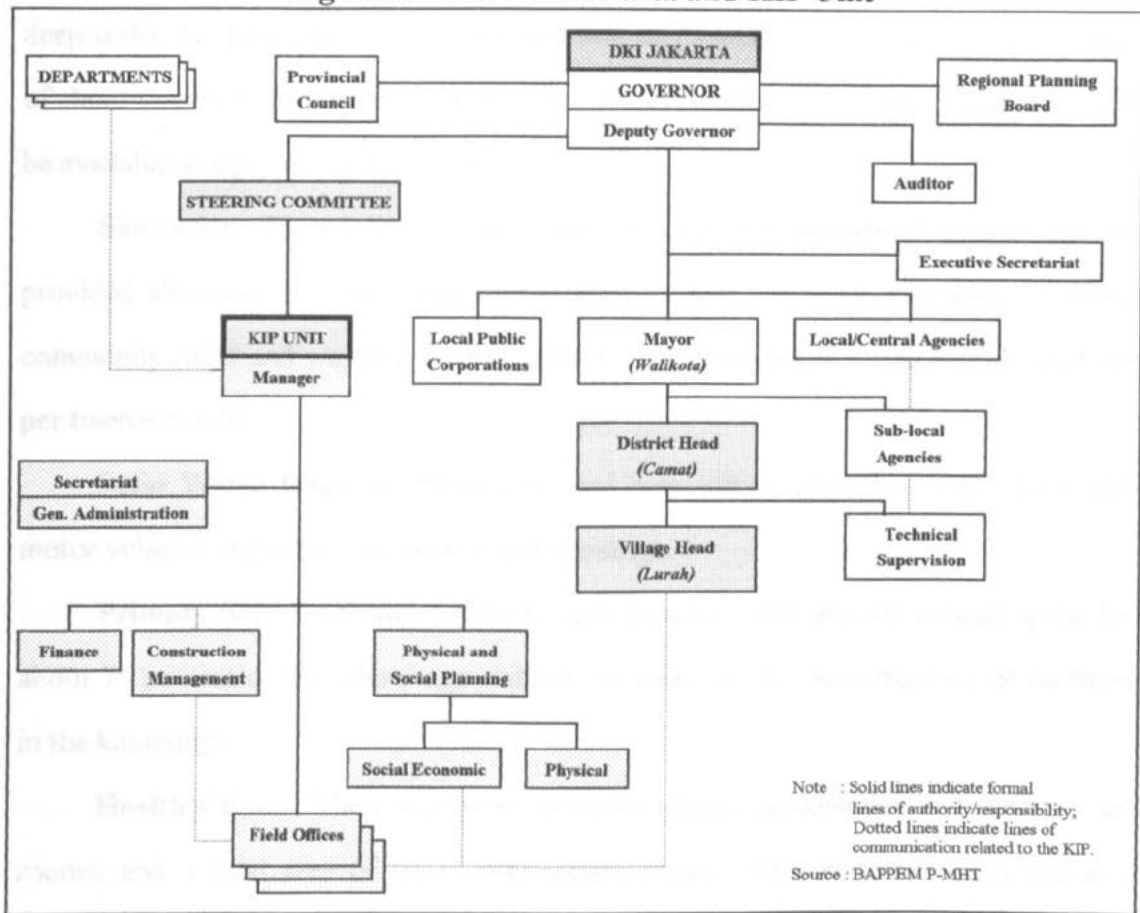
A special project unit for planning and implementing the KIP in Jakarta is BAPPEM-PMHT (*Badan Pelaksana Pembangunan - Proyek Mohammad Husni Thamrin*) which was established in 1974, by decree of the governor. This BAPPEM P-MHT was responsible for the implementation of the programme and was headed by a Manager who was directly responsible to the Governor. The KIP project conformed to a standard type project organisation under municipal authority, based on Law No. 5 of 1974, governing village administration, and No. 11 of 1990, governing Jakarta, a special territory of capital city of Indonesia. Diagram 4.2 shows the organisation of the DKI Jakarta and the KIP unit.

The BAPPEM P-MHT employs mainly engineers and engineering technicians, plus architects and planners. The administrative philosophy of the programme is that the Camat and Lurah 'represent the people'. Therefore, all negotiations between the project and the community are conducted through them.

4.5.4.1 Programme Components

The first KIP in Jakarta was essentially concerned only with the provision of physical infrastructure. The programme components had been defined and functional standards included (Subagio, 1986:89-90):

Diagram 4.2
Organisation of DKI Jakarta and KIP Unit



Roads: All dwellings must be situated within a maximum distance of 100 metre from a one-way road and 300 metre from a two-way roads. The length per hectare may range between 50-100 metre for one-way roads, and 15-35 metre for two-way roads. The target standard for the two types will be 60 and 20 metre/hectare respectively. Pavement widths will be 4 or 6 metre on a right-of-way of 6, 8, or 10 metre, depending on traffic conditions.

Footpaths: Paved footpaths should be within 20 metres of every dwelling not located on a road. The footpaths will have variable pavement widths, ranging from 1.5 to 3 metre with 3 to 6 metre right of way depending on site conditions. In addition, narrow footpaths of one metre width will be provided where feasible to link groups of houses in the interior of kampungs with the main footpath system.

Drainage: There should be open secondary and primary drains along the road and footpaths, as required.

Water Supply: There should be connections to the main city water supply or deep wells, as appropriate. One standpipe will be provided for services to each group of about twenty to fifty families. Where supplies are sufficient, private connections will be available along the reticulation system.

Sanitation: Pit privies for individual families and household groups will be provided wherever the appropriate soil conditions exist. In areas which place orders, community toilet and washing facilities (MCK) are provided at a rate of one toilet set per twelve families.

Solid Waste Disposal: Hand carts and bins will be provided in all cities, and motor vehicles and trailers in Jakarta and Surabaya.

Primary Schools: Primary schools, with furniture, will provide enough space for about 75 percent of the school-age children, to make up for the deficiency of facilities in the kampungs.

Health Clinics: There will be more health clinics (puskesmas) with three to six rooms, and a total area of up to 300 square metres, with necessary furniture and equipment.

Furthermore, since KIP-MHT 3, the strategy has changed and given some addition in terms of social, economic and environmental criteria. The first is to encourage small businesses and services with a low interest loan which is provided by the co-operative banks. The second is to integrate non-formal education with a training for community health workers. The third is to guide community participation with neighbourhood environment in minimising the environment degradation (Darrundono, 1988; KIP Unit DKI Jakarta, 1991).

4.5.4.2 Financial Aspects

The KIP is proposed annually. Typically these programmes are financed from funds coming from the central, provincial and municipal governments, and in some cases augmented with international financial assistance.

National funds for KIP in Jakarta are mostly in the form of appropriations from special and central funds of the State budget. National projects financed by either of these two funds are turned over to the municipal governments for operation and maintenance. They constitute subsidies from the central government.

During the five years of the First National Development Plan, Repelita I (1969-1974), there were 89 improved kampungs, covering 2,385 hectares with a total population of 1.2 million, and a population density of 494 people per hectares (Devas, 1981). In this period, KIP was financed by local revenue.

Since then, the cost has been shared equally between City of Jakarta and the World Bank loan. The World Bank joined to assist with finance for the next 2 years (1974-1976) of the Jakarta KIP programme, as part of the Bank's first urban loan to Indonesia. The Bank had for some time been advocating upgrading of infrastructure within existing residential areas as one of the most desirable policy options for low-income developing countries' cities, and it saw in the Jakarta KIP a prime opportunity to support just such an effort. A second loan (Urban II) was provided in 1977, and a third (Urban III) from 1979. (Devas, 1981; Taylor, 1975).

The total World Bank loan to City of Jakarta for KIP so far amounts to US \$89 million (Urban I: \$18 million, Urban II: \$ 43 million and Urban III: \$ 28 million) with further for KIP in Urban IV (BAPPEM P-MHT, 1990).

The important thing that the policy of the City of Jakarta has stated, from the beginning of the programme, is that no charge should be made to the kampung residents for the services and infrastructure provided on the grounds, that these forms of infrastructure which are provided, are free of charge elsewhere in the city. The only exception is the provision of standpipes, which are allocated to standpipe holders for an initial charge which they then recoup by selling the water from the standpipe.

However, there are certain charges made for operating costs:

Water: as well as recouping the installation cost, the standpipe holder has to pay for water consumed, which cost he then passes to consumers or vendors. Where

individual house connections are made, households must pay both the connection charge and the metered tariff.

MCK: on communal lavatories and washrooms no contribution is made by kampung residents towards the capital cost, but the community usually levies a charge in order to pay someone to clean and maintain the facility. Normally, the residents pay through the RW/RT head.

Solid Waste Collection: this is the responsibility of the local community, and it is financed through a monthly or weekly charge, usually, again, collected by the RW/RT head, which is used to pay the refuse collectors.

In addition, various amounts may be collected by the Lurah or RW/RT head for various communal, social or charitable purposes, such as security guard and community RT, as well as for the cost of any maintenance work needed in the kampung.

The only form of taxation which relates in any way to the improvement of the kampung is the property tax. In the past, before 1985, this property tax was called *Ipeda (Iuran Pembangunan Desa)*. This tax was levied on all properties, urban and rural, on the basis of property values (urban) or estimated agricultural yield (rural). However, the levels of this tax were very low - averaging Rp. 750 per head (1980 prices) in Jakarta including commercial and industrial properties (Devas, 1981:28).

Nowadays, the new property tax is called PBB (*Pajak Bumi dan Bangunan*). This tax is levied on the total area of land and the house in which the head of household stays. Although there have been increases in the levels of the property tax, it is unclear how far increased property values resulting from the KIP are really reflected in increased PBB assessments.

4.5.4.3 Organisation and Procedures

The organisation structure of the BAPPEM P-MHT in Jakarta is clearly a very conventional, hierarchical form, typical of a public works department, with clearly defined responsibilities and regular routines (Devas, 1981). The success of the KIP

operation in Jakarta is, in large measure, due to the simplicity of the process involved and to the fact that this process is tied tightly to a yearly cycle which is determined by the municipal budget cycle and to the need to carry out the construction work during the dry season.

A. Initiative

The initiative in the KIP is a combination of two popular systems. The first is 'top-down' system. The programme is completely the initiative of the local government of City of Jakarta, the governor is considered to have had the main responsibility for the municipality taking up kampung improvement. The various departments involved in carrying out the programme are represented on a steering committee.

The second is a 'bottom-up' system. The kampung community which wishes to improve the physical, social and economic parts of the kampung, develops a proposal. Through people's discussion in LKMD, mostly at the RW level, a detailed request is developed which after approval by the Lurah, Camat and Assistant Mayor can be submitted to the BAPPEM P-MHT for budgeting.

B. Site Selection

Site selection was done by the government of the City of Jakarta. The selection procedure had the purpose to give priority to the worst kampungs, under the requirement that kampungs selected should be roughly evenly distributed over the five Municipality districts of Jakarta.

First, the criteria are designed to select kampungs which should be given high priority for improvement. A preliminary survey is done on the proposed kampung of the existing conditions in order to determine its eligibility and priority. The aspects of selection is based on criteria that relate to social, economic conditions, location and zoning factors such as; incidence of flood, the age of the kampungs, the population density, the income of the people, the physical condition, land use, health condition, water supply, sanitation, elementary schools and people's attitude (BAPPEM P-MHT, 1990).

These are then analysed against the criteria established by the BAPPEM P-MHT for kampung selection. There are a number of kampungs which are not considered for improvement, for a variety of planning reasons. These 'never-to-be-improved' kampungs include: (a) settlements on land zoned for other purposes, i.e. green belt or industrial use, and (b) settlements whose presence in that location is considered to be a health or safety hazard, i.e. on the canal banks or along railway lines (Devas, 1981).

Second, the proposal and results of the selection are discussed in the Steering Committee Meetings, which decide on the priority and the eligibility of kampungs to be improved in a particular year. They formulate a programme proposal which consists of the size of the kampung to be improved, the physical components, and the budget plan. On the basis of this meeting, the governor decides and signs a Governor's Decree as the statutory sanction of the programme.

Third, following the Governor's publication of the selection of kampungs, the programme continues to carry out a detailed survey, holds planning meetings with the Lurah and plans community participation, marking boundary points, tender documents, land use adjustments, and supervision and monitoring.

C. Planning and Design

The procedures and techniques used for planning and design are set out in a manual for project preparation and execution, produced by the BAPPEM P-MHT. These planning and design elements are much as would be expected of a public works programme such as, surveys, detailed engineering drawings and bills of quantities, tender procedures and pre qualification of contractors, daily, weekly and monthly work progress sheets, staged payments to contractors and penalties. Those are done by various divisions of the Jakarta planning department (Darrundono, 1988).

4.5.4.4 Implementation

According to BAPPEM P-MHT, the policies for implementation and operation of kampung improvement are as follows (1990:25)

1. Improvements must reflect the priorities perceived by the kampung residents.

2. Consultation with the affected community must precede the implementation.
3. The project must use the prevailing mutual-help system through the head of the community, secure the affected community's participation, and reduce costs.
4. The project must nurture a sense of ownership on the part of the residents so that maintenance can be transferred to the communities themselves.
5. Cost recovery is to take place through indirect payments by the beneficiary in the form of a revised property tax (PBB).
6. The kampung improvement programme should concentrate on communities with low and middle income groups.
7. The improvements are to occur with a minimum distributions to the existing environment.

Table 4.7 Summary of Jakarta Kampung Improvement Programme, Since 1969 - 1991

COMPONENT	PROJECT KIP-MHT-1			KIP-MHT 2	KIP-MHT 3
	REPELITA I 1969-1974	REPELITA II 1974-1979	REPELITA III 1979-1984	REPELITA IV 1984-1989	REPELITA V 1989-1991
Total kampungs	89	242	288	97	58
Total area (Ha)	2,400	5,806	5,085	6,263	5,992
Total population	1,200,000	1,918,411	3,772,968	1,991,897	1,143,798
Density (Person/Ha)	500	330	356	318	260
Total cost (million Rp)	6,476	55,298	45,432	24,319	17,092
Quantities					
Roads (km)	187.87	882.83	258.70	46.72	57.89
Footpaths (km)	230.83	755.70	672.87	127.71	92.62
Bridge	129	248	54	-	-
Drainage Channels (km)	128.20	246.63	146.38	104.24	123.71
Water pipe (km)	103.06	139.84	-	81.95	-
Public Taps	46	1,354	1,198	-	16
Deep wells	3	35	4	-	6
MCK's	60	109	6,313	23	-
Garbage Bins	321	326	-	-	-
Garbage Carts	276	293	170	-	-
Health Posts & Centres	17	70	17	-	-
Schools	-	165	8	-	6

Sources: 1. Field Survey in BAPPEM-P MHT, 1992-1993.

2. Adopted from Recapitulation Repelita I, II, III, IV, and V, BAPPEM-P MHT.

Table 4.7 presents a summary of the components of Jakarta KIP for the Five-Year Plan periods (Repelita I - Repelita V). Certain estimates have been made of the cost of improvement per resident and these are relatively modest. An estimate of US\$

59 per capita (about Rp. 53,000 in 1976 prices) is quoted by Choguill (1985) and the per capita cost of US\$ 45 (about Rp. 54,000 in 1978 prices) is given by Subagio (1986). Baross (1984: 323) also estimated that the programme used a budget allocation of US\$ 60 per capita (about Rp. 102,000 in 1980 prices).

4.5.5 Partnership in Development

As indicated above, the Camat and Lurah represent the community. The degree to which they involve the public in decisions about kampung improvement is highly variable. They will almost certainly consult the RW heads in their area, and perhaps also the RT heads. These in turn may organise meetings in their neighbourhoods to discuss the programme through the LKMD. In most cases, the community contributes labour and materials.

Arrangements are made for community contributions such as the provision of land to extend footpaths and move back fences and house fronts. Community contributions usually average between a third and a half of the public contribution. Moreover, the community decides how to compensate families who contribute land to the project or who demolish parts of their houses. In the latter case, these are usually rebuilt with help from the community. Only when the residents of a particular kampung agree on how to share the cost of improving their own living environment will the proposal for kampung improvement be finalised and implementation begin.

Using this approach, the community is encouraged to organise itself during the preparation process and to create a forum for the exchange of ideas within the community. This strong consensus in the division of tasks and functions between the government and the community is only possible due to the high degree of public participation, a strong sense of belonging in the project, strong and friendly relations between the government and the community, and the purposeful will of the government for the KIP.

4.6 Summary

In this chapter the detailed background of the case study area of Jakarta has been presented. It has discussed the planned development and the implementation of the structure plan and the Kampung Improvement Programme in Jakarta.

Like other cities in Indonesia, the development of the City of Jakarta has undergone four different phases. Two types of development processes have dominated the growth of the city, the formal and the informal. As a result there are two types of residential areas exhibited in the city, the formal development and the kampung type.

Many urban projects have accelerated the urbanisation process in Jakarta since independence. The incoming population has been settled both through formal and informal processes. The unskilled migrants generally occupied the kampung areas as a type of settlement, which are usually serviced with limited urban infrastructure.

The local government of DKI Jakarta has attempted to overcome and to prevent kampung type settlement by implementing a Kampung Improvement Programme - Mohammad Husni Thamrin (KIP-MHT) since 1967. Parallel to that the Central Government has attempted to co-ordinate development activities of KIP.

The main concern of KIP-MHT is improving the environmental health, consequently the priorities are the infrastructure services including roads, footpaths, sewers, public toilets and garbage collection points. Where social and economic services are concern in educational and health facilities, as well as training for voluntary workers and small businesses and services.

End Notes.

¹ Bappenas (*Badan Perencanaan dan Pembangunan Nasional*) or the National Development Planning Board is the agency which concern in the planning of urban and regional development in the scope of central and local government.

² Muhammad Husni Thamrin was a national hero of Indonesia's independence, who was active in helping poor people in Jakarta. He was an active personality in supporting the nationalist movement of these times, along with vehemently championing the cause of kampung dwellers in the 1920's and 1930's (DKI Jakarta, 1989:46).



CHAPTER 5

RESEARCH METHODOLOGY

CHAPTER FIVE

RESEARCH METHODOLOGY

5.1 Introduction

This chapter attempts to provide a clearer picture of the environment in which the research was conducted. It explains the selection of study areas and the kampungs surveyed, sampling procedures, survey design, method of data collection and statistical analysis which enable the research hypotheses to be tested. This chapter has three major sections. In the first section, the rationale of the selection and the characteristics of the kampung study areas for the surveys are described. Section two explains the data collection processes adopted in this study which includes subsections on the sampling strategy, the field survey, the preparing of questionnaires for households and the leadership survey. The last section deals with data analysis. The description of the techniques adopted will provide some insight into the testing of the hypotheses.

5.2 Study Area

In order to do this research, Jakarta, which is one of the important big cities in Indonesia, has been selected as a case study area. Most of the investments went to develop this the capital city of Indonesia and it was the first city to develop a kampung improvement programme, beginning 1969. Therefore, it is vital to examine KIP within its original context as a means of reaching an evaluation of its results.

The selection of Jakarta also makes it possible to examine the inter relationships between humans and the environment in kampung areas. This is done in order to demonstrate how the pursuit of sustainable urban development can improve the quality

of life of kampung dwellers and city dwellers as a whole.

The selection of KIP has an additional practical value because the author is personally familiar with the programme. The author has been involved in various research projects for this programme including urban development plans, on the priorities for kampung development and a feasibility study of urban development and kampung projects.

Therefore, this research is unique because it examines an important aspect of sustainable urban development which previous studies have not investigated fully due to the predominantly segmented nature of earlier studies in examining either economic or environmental development. As Pernia (1992:255) suggests, a strategy for human settlements and sustainable cities should include policies in four areas: economic, social, urban management and environmental. These are equally essential for simultaneously fostering an improved quality of life.

The following sections investigate the unit of analysis used to investigate the kampung study areas.

5.3 The Selection of the Kampung Study Areas

This study is limited to **kampungs** which are comprised of urban areas of Jakarta. In Jakarta established kampungs are found with well over 200 families (Darrundono, 1988). Although many urban kampungs are very old, having evolved over the 300 year period of Dutch colonial rule, the kampung system remains the primary settlement system for accommodating the recent and continuing growth of the major cities. The 'kampung' is used to describe traditional Indonesian communities which may form a part of either a village or town.

The kampung system gives a specific administrative arrangement, status and size of area to the case study of kampungs in the form of village administrations (kelurahan), which are the lowest government administrative unit in Jakarta. However, every kelurahan has a different total number of RWs (neighbourhood groups) which

form the basis of improvement areas. Only those RW areas which are considered to require priority improvement will receive KIP.

Therefore, the selection of the kampung study areas is prompted by three main factors. The first is the nature of the kampung (see section 3.5). The nature of the kampung causes a lot of confusion since a direct translation into English is not possible (Utoro, 1989:135). Kampung areas are the informal, unplanned and, until recently, unserviced housing areas, have varying land ownership and tenure perspectives arrangements, have different qualities of urban infrastructure, have been improved under different programmes initiated by the Government of Indonesia, have variable household incomes and mixed land uses even if an area is primarily residential, are sites for small factories, workshops, retail stores and restaurants among other activities. Most have an intricate socio-economic support system which has evolved from the traditional rural village and the heterogeneous community. As section 4.5 has demonstrated, the selection of the kampungs can be characterised as urban kampung areas.

The second selection factor was based on the experience of the KIP-MHT implementation. It was clear that the selected kampung areas served were categorised as low income areas or as exhibiting particularly poor environmental conditions. Some of the more significant criteria that are used in selection and classifying kampung study areas are: (a) spatial distance from central to peripheral area of the city; (b) physical condition of dwellings and surroundings; (c) extent of overcrowding and congestion of dwellings and people; (d) relative age of the settlements; (e) type of land occupied; (f) adequacy of urban services including water, fuel, light, medical and welfare services; (g) community organisation or disorganisation; (h) ethnic or class homogeneity or heterogeneity; (i) extent of deviant behaviour such as crime, juvenile delinquency; (j) apathy and social insulation; and (k) disease rates and extent of health and sanitation (see section 4.5.4 in Chapter Four and the list of criteria used to select kampungs in **Appendixes 1A and 1B**).

The purpose of the criteria is to give priority to the worst kampung conditions. This is qualified by a requirement that kampungs selected should be roughly evenly distributed between the five municipalities of Jakarta. Therefore, from these criteria, the highest priority will be given to those with worst conditions.

The third selection factor was the extent of improvements as a result of the Kampung Improvement Programme in Jakarta distinguishing between the kampung areas which have already been improved by the KIP, called '**improved kampungs**' and the kampung areas which have yet to be improved, called '**unimproved kampungs**'. This was followed by a description of the kampungs that have been selected for the investigation given the linkage patterns of urban settlement in urban kampungs of Jakarta.

Therefore, by using these three selection factors, five kelurahans (villages) were selected for this research, as representative of each of the municipalities of the city of Jakarta. Three kelurahans have been identified as potential locations for study and are considered to be typical of 'improved kampungs', such as Menteng, Kali Anyar and Pela Mampang. Another reason for final selection, in consultation with BAPPEM P-MHT, include: (1) areas which meet all criteria for improvement; (2) a successful record in past projects of implementation and maintenance; (3) effectiveness of KIP components; and (4) a stated objective of improving the standard of living.

The other two kelurahans which have been identified as 'unimproved kampungs' include Sunter Jaya and Ujung Menteng. Another reason for final selection, in consultation with BAPPEM P-MHT, are: (1) locations that have been identified by KIP-MHT 3 for improvement in the period 1989 - 1994; (2) representative of the traditional characteristics of unimproved kampungs; (3) a location in peripheral areas in the general vicinity of the improved kampungs to be examined; and (4) the existence of good opportunities for improving quality of life by community participation.

The characteristics of the five selected kampung study area thus far chosen are summarised in Table 5.1.

Table 5.1 The Selection of Kampung Study Areas

No	Municipality	Village / Kelurahan	Total Population	Area of KIP(Ha)	Density (person/Ha)	House- hold size	Area of Study	
							RW	RT
Improved kampungs								
1	Centre Jakarta	Menteng	39,143	31.6	535	4.8	4	59
2	West Jakarta	Kali Anyar	28,024	32.0	792	5.5	5	64
3	South Jakarta	Pela Mampang	44,666	11.1	763	5.2	1	19
Unimproved kampungs								
4	North Jakarta	Sunter Jaya	44,832	41.2	266	5.2	3	47
5	East Jakarta	Ujung Menteng	11,197	38.4	249	3.1	2	24

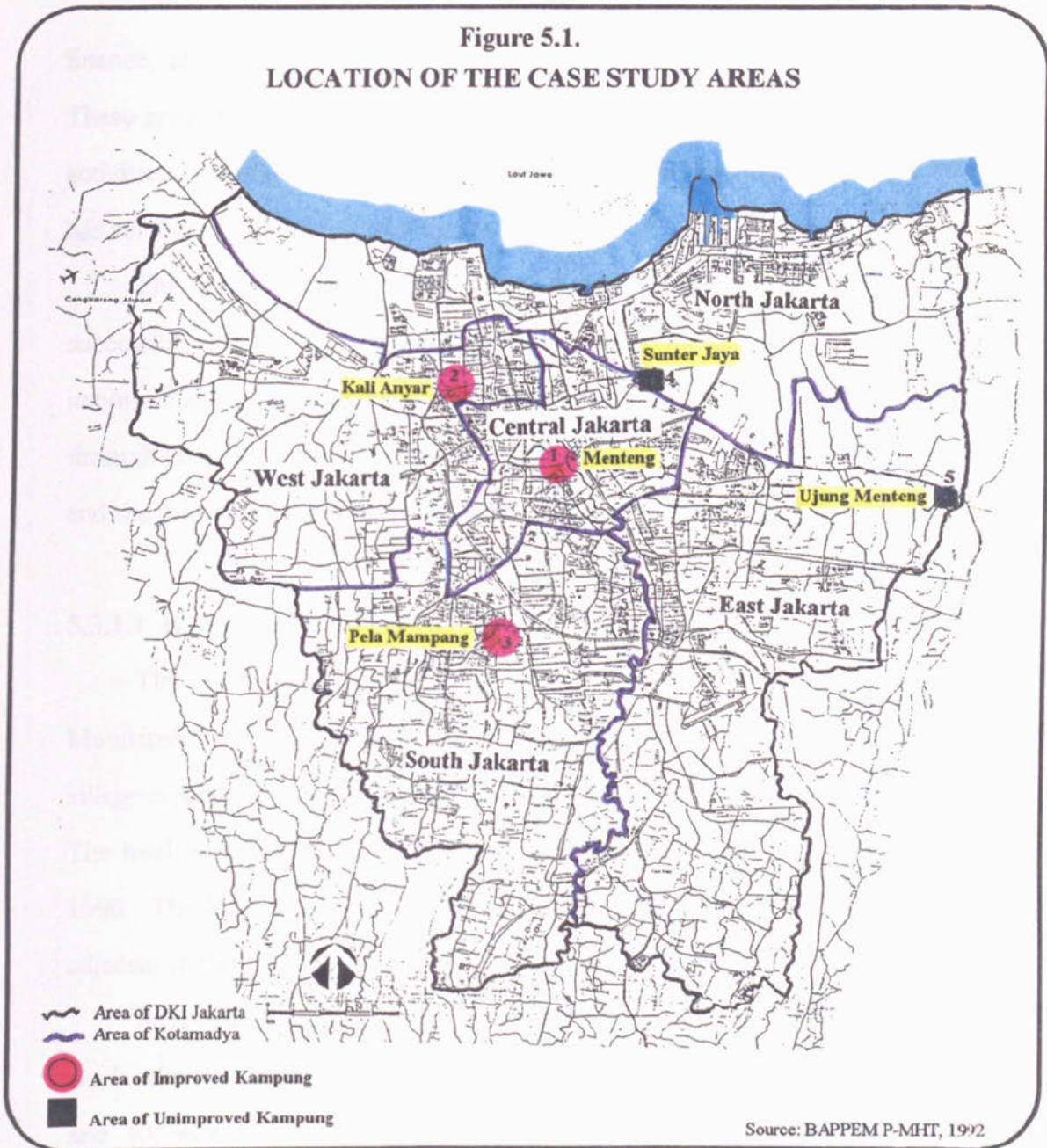
Source : Statistics Office DKI Jakarta (1991).

Figure 5.1 shows the location of the five kampung study areas. It reveals that each kampung is located in a different municipality of the city of Jakarta. The selection of five kampung areas within the city of Jakarta as a whole enabled the maximum use to be made of the limited time and financial resources at the disposal of the author. The following subsections explain the reasons for selection and the existing conditions of each of the selected kampung study areas.

5.3.1 The Selection of Improved Kampungs

The selection of three locations in improved kampungs for this research is incumbent upon four key elements. First, the kampung improvement programme has been applied to most of the kampung areas in Jakarta since 1969 (see Table 4.7). These locations were scattered all over the city of Jakarta. Even though only three out of 260 villages (*kelurahan*) were selected as 'improved kampung areas', they adequately represented what had been the worst social, economic and physical conditions of kampungs which were selected given the criteria adopted. They have been improved in different periods of Repelita.

Figure 5.1.
LOCATION OF THE CASE STUDY AREAS



Second, KIP-MHT had identified that these locations were selected on the basis of all criteria of kampung selection, including sanitary conditions, housing conditions, high density dwellings and population, severity of flooding, and accessibility and utilities. It was crucial that the choice of degree of location for this research needed to be consistent with this standard of selection.

Third, as sections 3.6 and 4.5 showed, the programme has different sources of finance, approaches, indicators of improvement, and partnerships in development. These areas are heterogeneous in their socio-economic characteristics and economic activities. Therefore, every selected kampung that has been chosen for the case study has somewhat different characteristics.

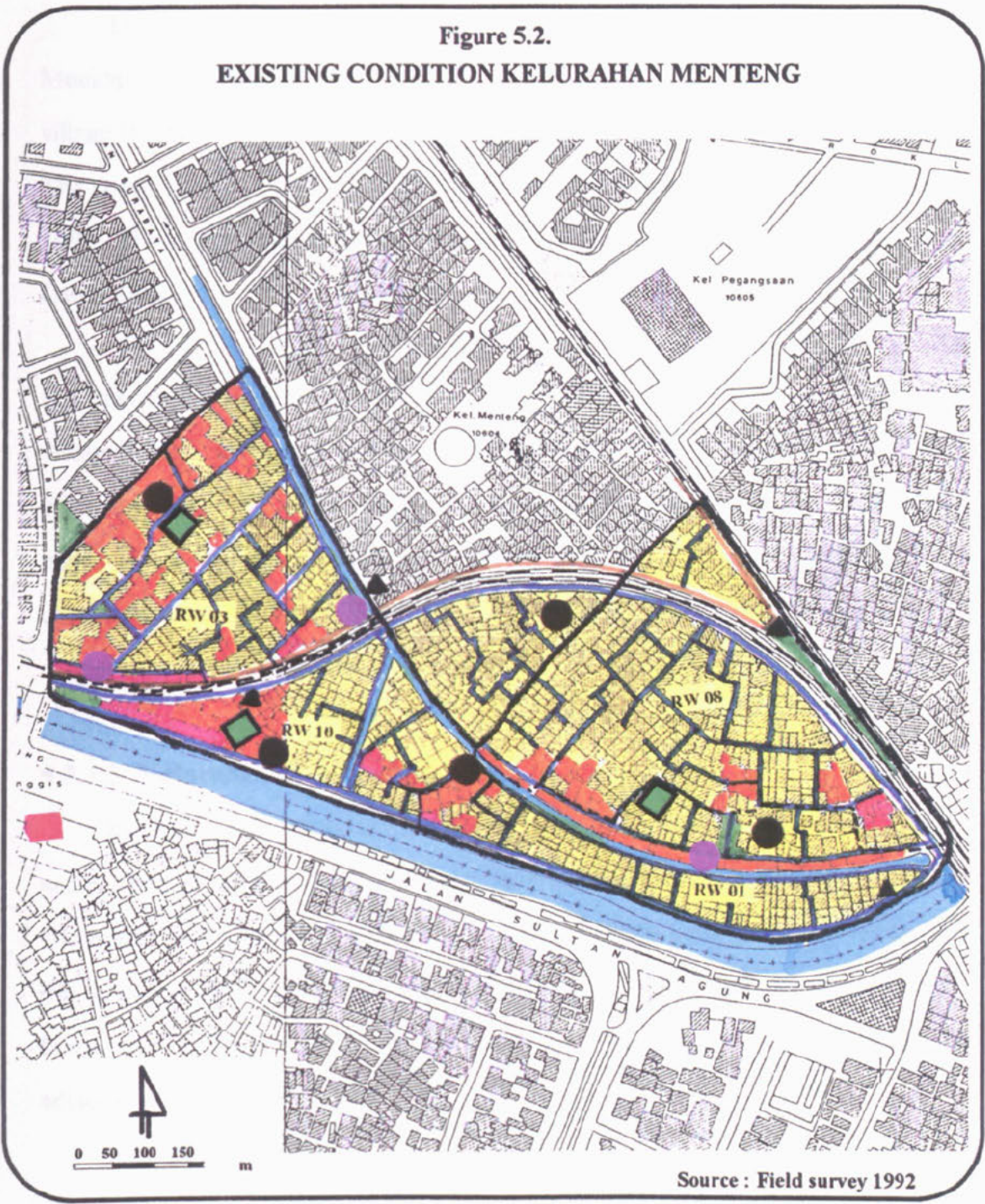
The final consideration is to ensure that the three selected kampung studies are successful in implementation and maintenance after the KIP. This is particularly important as many kampungs have improved the environment of their areas, frequently through community participation and mutual-help. The choice of improved kampungs and the existing conditions for this research are presented in the next section.

5.3.1.1 Kelurahan Menteng.

This kampung is located in the Sub-district of Menteng and is a part of the Municipality of Central Jakarta. It covers approximately 2.44 square kilometres. This village is subdivided into 10 Neighbourhood groups (RW) and 128 Block groups (RT). The total population was 39,143 while the total number of households was 8,175 in 1990. The local and main national railway line runs through this village. It also lies adjacent to the Ciliwung River.

As a result of selection by the kampung improvement programme in 1969, with work taking place in the 1970s (Repelita I), the areas covered include RW 01, 03, 08 and 10, with a total area of 31.6 hectares. The budget funds came from local government. The main point for choosing this location is its accessible to all activities and work places as it is a part of the centre of the city. Within the kampung are neighbourhood groups with high income because this location is representative of residential areas for businessmen and the central administrative of government. The land use is primarily residential. Figure 5.2 shows the existing condition of Kelurahan Menteng after the KIP implementation.

Figure 5.2.
EXISTING CONDITION KELURAHAN MENTENG



Source : Field survey 1992

Areas of study		Road/Path condition :		Sanitation :		Other facilities :	
	RW boundaries		Concrete/cement		Water Taps		Market
Housing condition :			Brick-stone		Drainage		Mosque
	Permanent				MCK		Open space / Rice fields
	Semi-permanent				Garbage bins		
	Temporary						

5.3.1.2 Kelurahan Kali Anyar.

This kampung is located in the Sub-district of Tambora and is a part of the Municipality of West Jakarta. It covers approximately 0.32 square kilometres. This village is subdivided into 9 Neighbourhood groups (RW) and 104 Block groups (RT). The population in this village is 28,024 with the total number of households 5,097 in 1990. The local railway line runs through this village. It also lies adjacent to the Banjir Canal River.

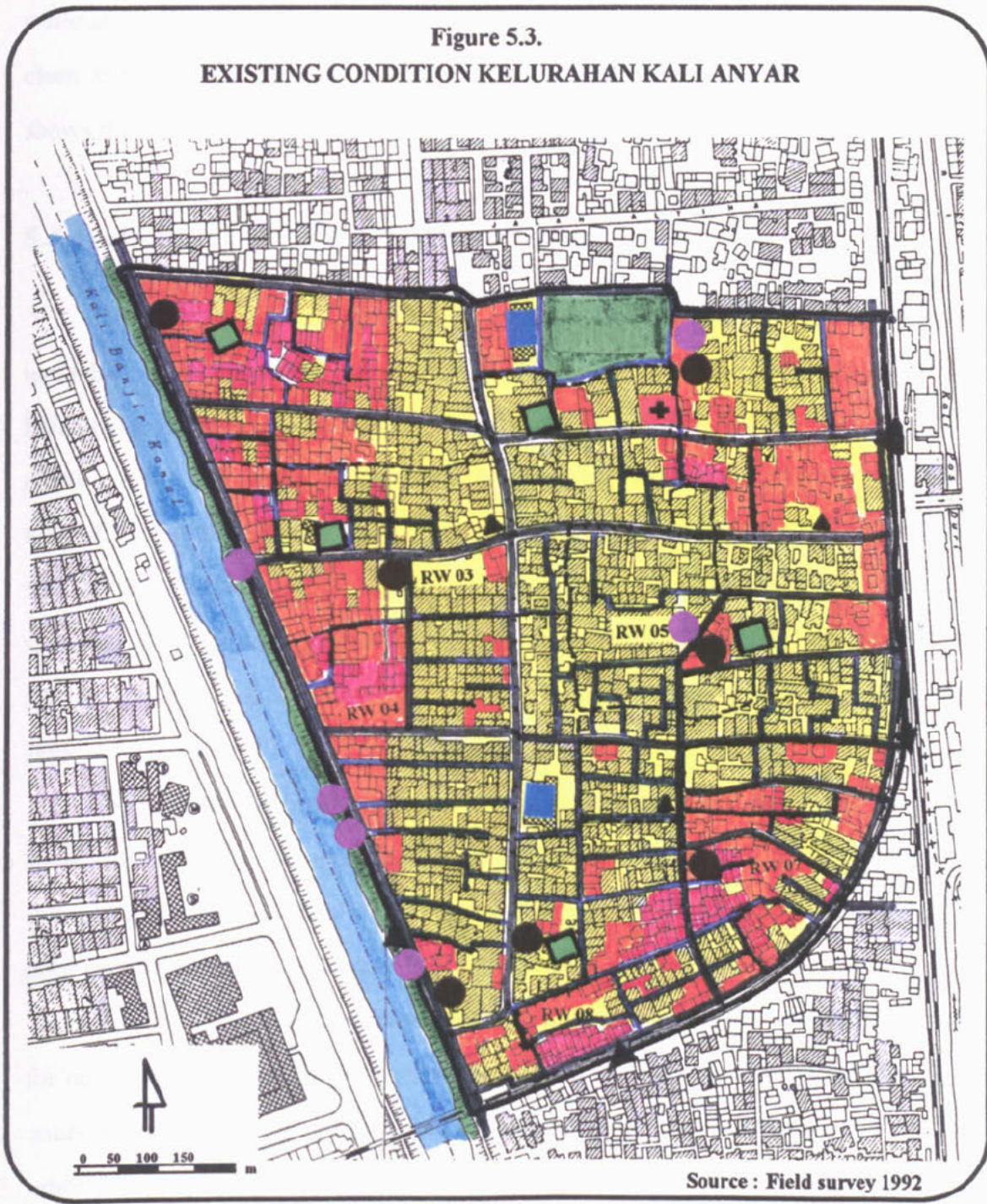
As a result of the KIP implemented in 1972 to 1973 (Repelita II), all the village was improved. The budget funds came from the World Bank. The accessibility of this village is good, being near to the Jakarta city centre and work places. The land use is primarily residential. The reason for selecting this location is the successful of improvement to all neighbourhood groups and a good participation from the community (Interview with BAPPEM P-MHT, 1992). Figure 5.3 reveals the existing condition of Kelurahan Kali Anyar, as a result of the KIP.

5.3.1.3 Kelurahan Pela Mampang

Kelurahan Pela Mampang is located in the Sub-district of Mampang Prapatan and is a part of the Municipality of South Jakarta. It covers approximately 1.62 square kilometres. This village is subdivided into 13 Neighbourhood groups (RW) and 153 Block groups (RT). The population in this village is 44,666 with the total number of households 8,532 in 1990. The local road runs through this village. It also lies adjacent to the Mampang River.

As a result of the kampung improvement programme in 1979 -1980 (Repelita III), the areas improved covered RW 11, with total area of 11.1 hectares. The budget came from central and local government but also the World Bank. The accessibility of this village is good, being near work places and near the centre of the city. The land use is residential. The reason for success of this location, even though only one neighbourhood group (RW) from 13 RWs was involved, was good participation and

Figure 5.3.
EXISTING CONDITION KELURAHAN KALI ANYAR



Source : Field survey 1992

Areas of study		Road/Path condition :		Sanitation :		Other facilities :	
	Areas of study		Asphalt		Water Taps		School
	RW boundaries		Concrete/cement		Drainage		Health clinics
Housing condition :					MCK		Mosque
	Permanent				Garbage bins		Open space / Rice fields
	Semi-permanent						
	Temporary						

mutual-help of the community in improving and maintaining the environment and settlement. This Kelurahan received an award from the governor of DKI Jakarta as a clean and healthy settlement in 1985 (Interview with the Lurah, 1992). Figure 5.4 shows the existing condition of Kelurahan Pela Mampang.

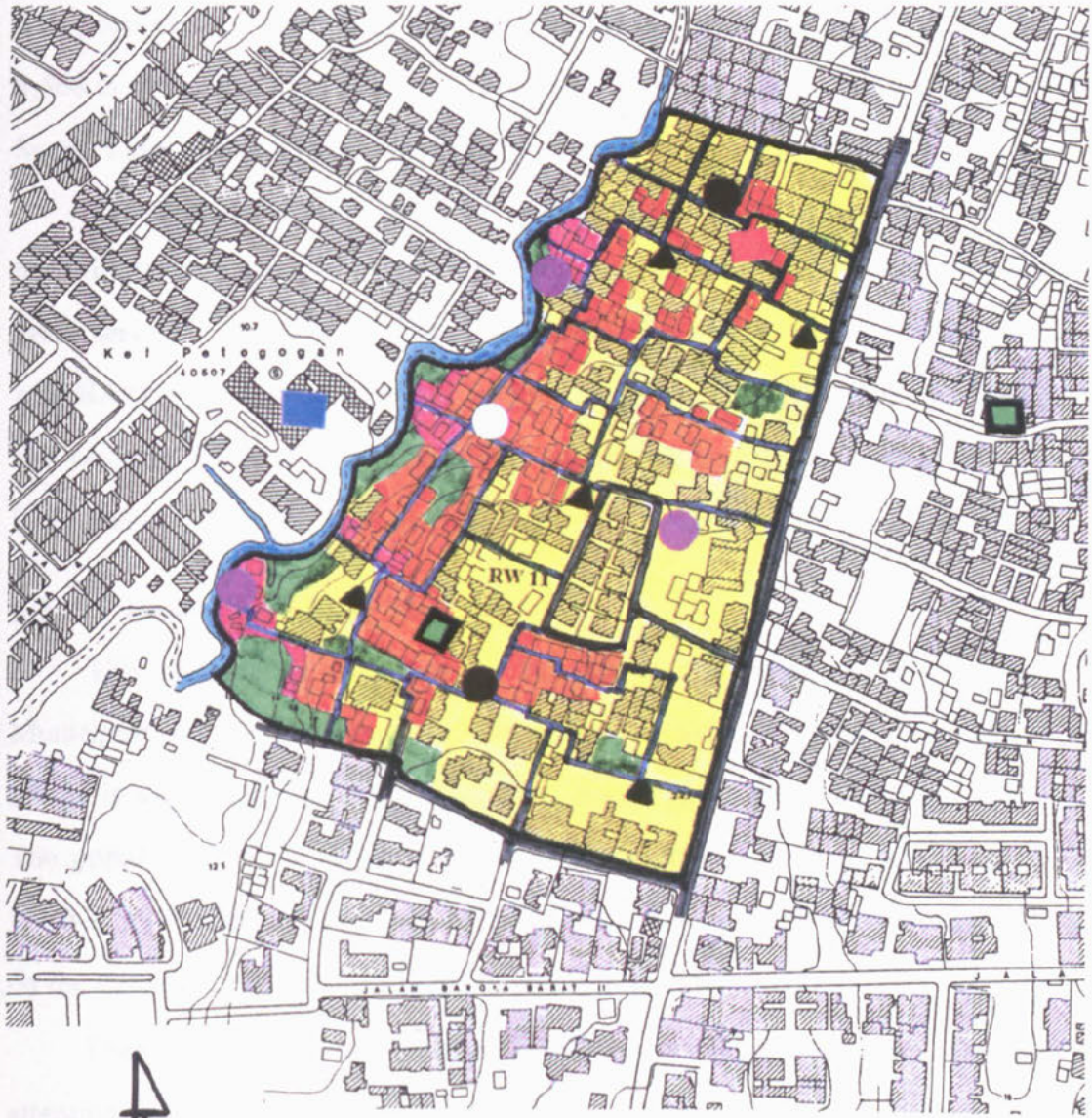
5.3.2 The Selection of Unimproved Kampung

The selection of two locations of unimproved kampung for this research is incumbent upon three key factors. First, the BAPPEM P-MHT has selected 75 kelurahans as kampung to be improved for the period KIP-MHT 3 in Repelita V (1989 - 1994). However, 58 kampung had been improved in the previous period of KIP-MHT 1 (1969 - 1984) and 17 kampung are yet to be improved (BAPPEM P-MHT, 1992). After careful consideration and consultation with the KIP projects, in this case study of unimproved kampung, one example will be chosen from East Jakarta and one from North Jakarta. They are Kelurahans Ujung Menteng and Sunter Jaya.

Second, the significant criteria used to choose unimproved kampung were the same as those the criteria used to select of improved kampung. The criteria are that they are primarily residential areas, the age of kampung, the degree of crowding, the poor state of sanitation, and that they always flood in the rainy season.

Finally, and perhaps most importantly these locations present good opportunities for community participation in the delivery of social services in urban kampung. The conditions in these settlements are still relatively favourable and they may become the urban kampung of the future. The residents of these areas are enthusiastic about potential improvements. The next section presents the choice of unimproved kampung and their existing conditions.

Figure 5.4.
EXISTING CONDITION KELURAHAN PELA MAMPANG



Source : Field survey 1992

Areas of study		Road/Path condition :		Sanitation :		Other facilities :	
	RW boundaries		Asphalt		Water Taps		School
<u>Housing condition :</u>			Concrete/cement		Public Well		Market
	Permanent				Drainage		Mosque
	Semi-permanent				MCK		Open space / Rice fields
	Temporary				Garbage bins		

5.3.2.1 Kelurahan Sunter Jaya

This kelurahan is located in the Sub-district of Tanjung Priok and is a part of the Municipality of North Jakarta. It covers approximately 4.68 square kilometres. This village is subdivided into 11 Neighbourhood groups (RW) and 172 Block groups (RT). The population in this village was 44,832 and the total number of households was 8,568 in 1990. The local road is some distance from this village. It lies adjacent to the Sunter Lake. The land use is primarily residential.

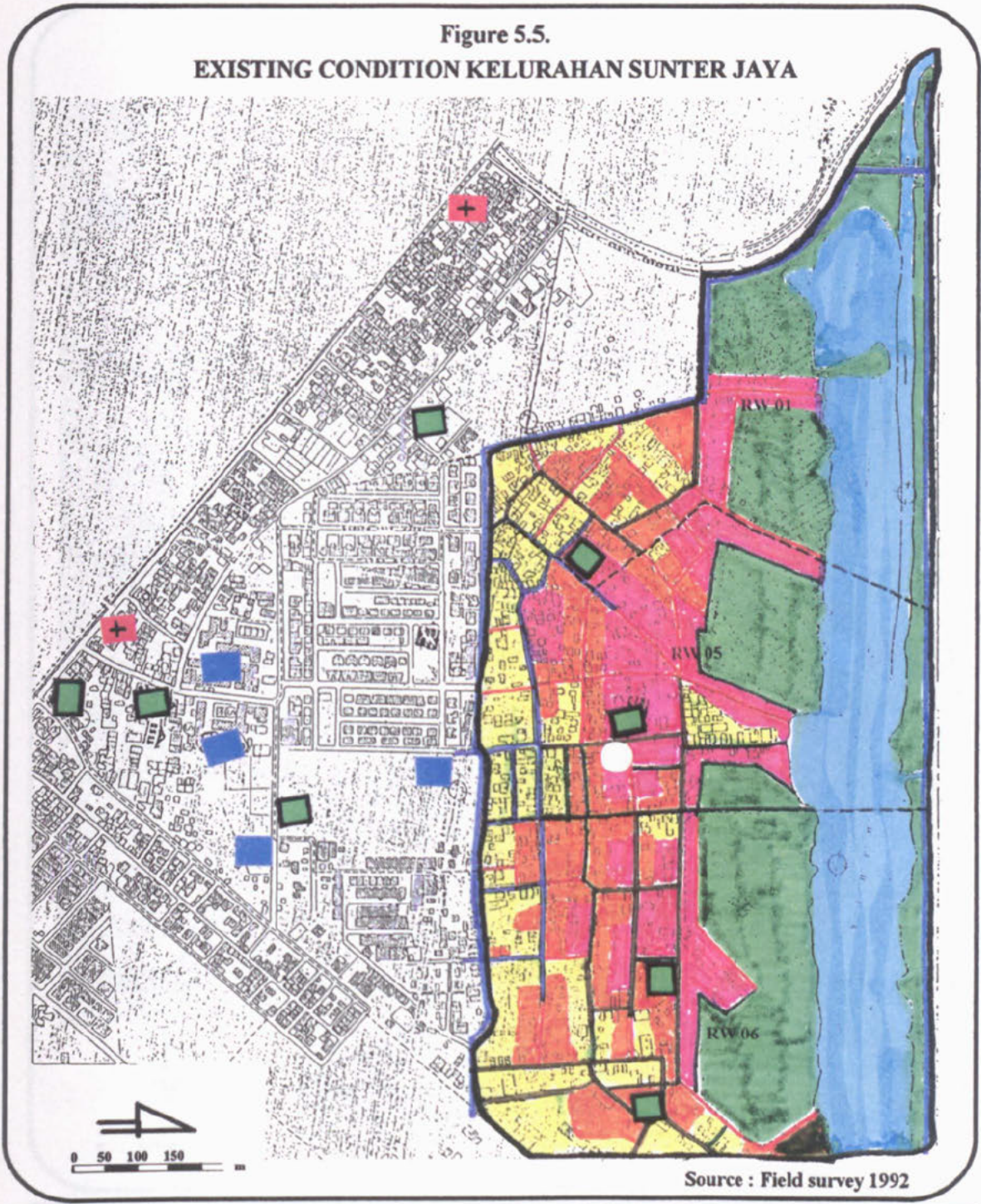
However, there are some areas with poor conditions of housing which are in need of attention from the government to upgrade or to improve the infrastructure and urban services. This is particularly true of areas such as RWs 01, 05 and 06 (Interview with BAPPEM P-MHT, November, 1992). Therefore, these RWs form the location of this research. This village is near work places, particularly the harbour of Tanjung Priok and to the centre of the city (see figure 5.5).

5.3.2.2 Kelurahan Ujung Menteng

This kampung is located in the Sub-district of Cakung and is a part of the Municipality of East Jakarta. It covers approximately 4.43 square kilometres. This village is subdivided into 4 Neighbourhood groups (RW) and 55 Block groups (RT). The population in this village is 11,197 with the total number of households being 3,738 in 1990. The main national transportation lines run through this village. It lies on the Cakung River. The land use is primarily residential.

There are some areas with poor housing conditions which are in need of attention from the government to upgrade or to improve the infrastructure and urban services. In particular need are areas such as RW 02 and 03 (Interview with BAPPEM P-MHT, November, 1992). These are the areas for this research. This village is near work places, particularly in the heavy industry area of Pulo Gadung and peripheral locations of the city. However, the total built up area in this village is still limited. Some areas of land are still farmlands and green areas (see figure 5.6).

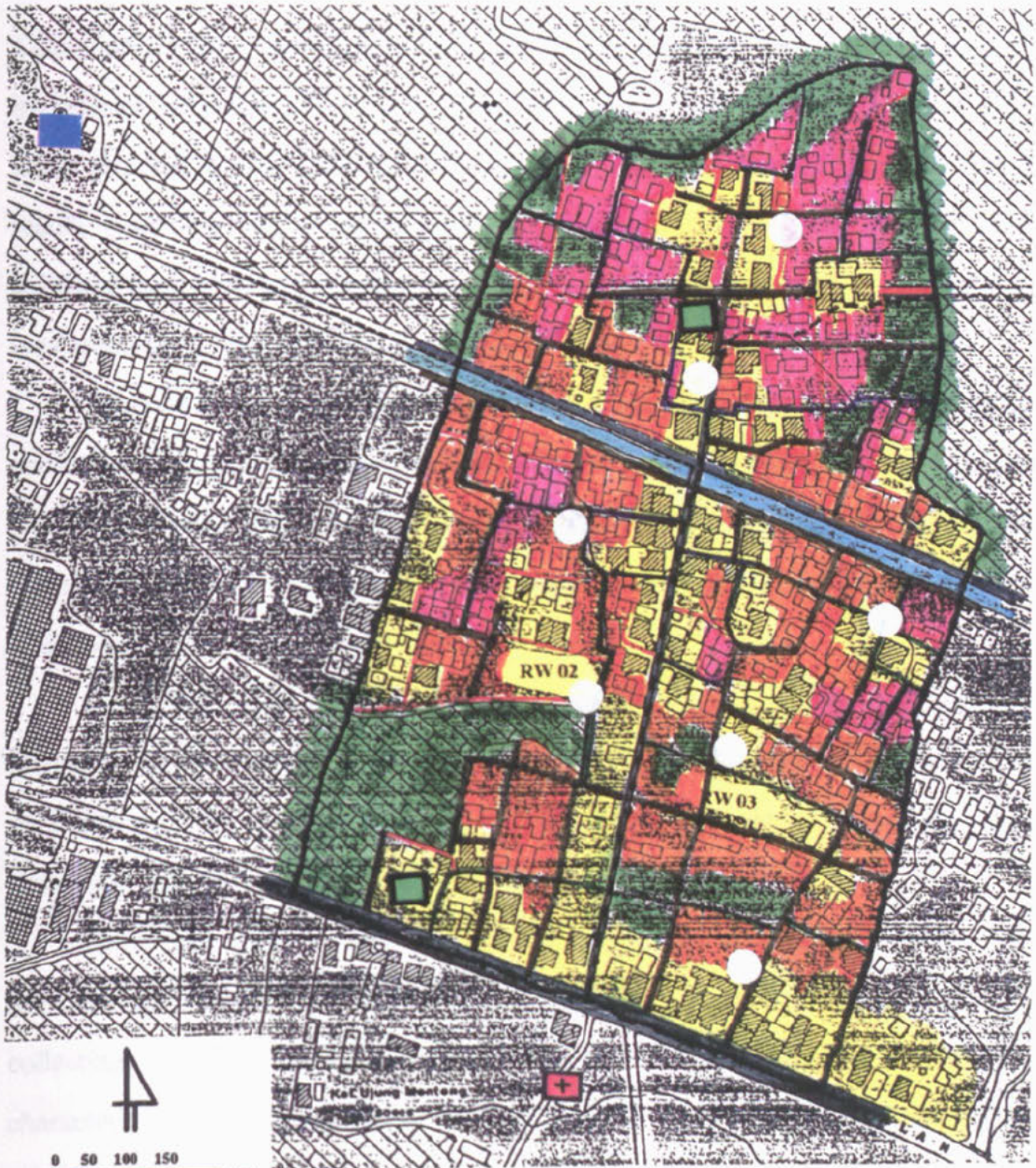
Figure 5.5.
EXISTING CONDITION KELURAHAN SUNTER JAYA



Source : Field survey 1992

Areas of study		Road/Path condition :		Sanitation :		Other facilities :	
	RW boundaries		Concrete/cement		Public Well		School
Housing condition :			Brick-stone		Drainage		Health clinics
	Permanent		Soilpaved				Mosque
	Semi-permanent		Mud				Open space / Rice fields
	Temporary						

Figure 5.6.
EXISTING CONDITION KELURAHAN UJUNG MENTENG



Source : Field survey 1992

Housing condition :		Road/Path condition :		Sanitation :		Other facilities :	
	Permanent		Asphalt		Public well		School
	Semi-permanent		Concrete/cement		Drainage		Health clinics
	Temporary		Brick-stone				Mosque
			Soilpaved				Open space / Rice fields
			Mud				

5.4 Methods of Data Collection

According to Moser and Kalton (1971), any researcher has the freedom to choose any type of data collection technique and research design. Black and Champion (1976), proposed a model with six steps including: a felt need; the problem; hypotheses; collection of data; concluding belief; and general value of conclusion. This study required various data for analysis. Most data for planning purposes are not readily available in developing countries. However, much data is available but usually scattered in an array of different agencies thus time consuming to collect. Therefore, it was necessary to undertake different types of surveys to obtain the required data.

The data and information used in this study came from two sources: primary and secondary. The primary data were those collected directly by the author through field-work during which questionnaires were administered. The secondary data mainly came from books, reports, seminar papers, periodicals and government publications, many of which were gathered from library sources in the UK.

Other information was obtained through discussions and interviews with relevant planners, administrators, leaders of the neighbourhoods and the headmen of communities, and co-ordinators of regional planning agencies, especially those associated with KIP-Jakarta (BAPPEM P-MHT - DKI Jakarta).

These data include a variety of socio-economic and demographic indicators. The selection of variables was based on two principles. First, attention was given to collecting data that would describe the different physical, economic and social characteristics of kampung areas. Second, attention was given to the collection of reliable data from households and a leadership survey.

The next section highlights the surveys and questionnaire design for the surveys.

5.4.1 The Surveys

According to Leon and Daniel (1953:15) "a survey is the systematic collection of data from population or samples of population through the use of personal interviews

or other data gathering devices (and) that depend on direct contact with those persons or a sampling of those persons whose characteristics, behaviour or attitudes are relevant for a specific investigation".

To gather data, social surveys use questionnaires and interviews, attitude scales, projective techniques, and various related methods (Oppenheim, 1966). A sample survey was carried out for this study and a schedule was used to collect primary data from a sample of the population.

5.4.1.1 Pilot Survey

Prior to the actual field work, a pilot survey was conducted in November 1992. The first reason for this was to identify as well as to locate the kampung areas and to select the sample of households and leaders that were to be included in the main survey. Dennis and Kumar (1988:46) suggest that "the need to establish sound initial contacts is obviously of particular importance when the stay of the observer is to be of limited duration".

During the pilot survey, a few meetings were arranged by the author with the Director, the Head of Planning and staff of BAPPEM P-MHT, the heads of villages (*lurah*), the heads of neighbourhoods (*ketua RW*) and the heads of the Organisation for Community Security, or LKMD (*Lembaga Ketahanan Masyarakat Desa*).

The second reason was to test the quality of the questions included in the questionnaire, to ensure that these questions were not ambiguous or excessive and could be clearly understood by interviewers and respondents. Dennis and Kumar (1988) state that "newly prepared questionnaires should be pretested on a few pilot respondents in order to identify weaknesses, ambiguities and omissions before it is finalised for the survey itself". Amendments, where necessary, were incorporated into the final two sets of questionnaires and translated into the Indonesian language.

The third reason was to set up the procedures for the proper field work, such as including a letter of recommendation from the Governor of DKI Jakarta, a letter of authorisation from every village head, and permission from every head of the

neighbourhoods. This was important because it was discovered that respondents would not answer questions or be involved in this investigation without such steps.

The fourth reason was to select the nature and characteristic of the population to be interviewed. The selection of the samples for the surveys was done by consulting key informants who were knowledgeable about local conditions, such as the administrators of villages, the heads of communities and the heads of neighbourhoods. This was done to minimise the bias arising out of individual preferences. From the list prepared by the local authorities, the author selected the required number that was relevant to the study. Precautions were also taken to include diverse participants by classifying the target population on the basis of carefully selected criteria relevant to the study.

Finally, the pilot survey was intended to detect any problems that were commonly encountered during the proper interviews, and to find ways of solving or minimising them.

5.4.1.2 Field Work

The field-work was conducted by the author with the help of 6 interviewers during the months of December 1992 and January 1993. The interviewers were selected with the help of the Agency for the Assessment and Application of Technology and University of Sahid - Jakarta. To achieve better results in obtaining information from the respondents, interviewers were trained for one day with the help staff of the Deputy of Analysis System, the Agency for the Assessment and Application of Technology.

The aim of the field-work was to collect data in order to test the selected hypotheses concerning the KIP in Jakarta on the people in five Kelurahan. Some aspects of the areas can be directly observed visually, such as progress in housing construction or upgrading, the number of people participating in community work groups and progress on social, economic and physical conditions of the kampung areas.

The higher response rates could be expected from field work since survey respondents can be guaranteed of anonymity. Nonetheless, an appropriate timing for conducting a survey is important to ensure a high response rate (i.e. not during workdays).

The author interviewed the lurahs and staff where necessary to get general information on the kampung study areas. Besides, the lurah is the most suitable person to have information on general kampung conditions.

5.4.2 Sampling Design and Techniques

In order to test the hypotheses, data on population elements were required. The idea of sampling from a population rather than a census of the whole population has now become the standard method among social scientists. It involves selecting for study a representative cross-section of a larger population (Bamberger and Hewitt, 1986). Therefore, the population characteristics can be estimated from sample characteristics using sampling techniques.

A sample is a number of units such as people, households or communities, which have been selected in a systematic way so as to permit estimates to be made about the characteristics of the population from which these units were drawn. For many purposes a well chosen sample will be just as useful as a census in which all households or persons have been interviewed (Bamberger and Hewitt, 1986:176).

There are four main ways to select a sample: simple random sampling, systematic sampling, stratified random sampling and cluster sampling (Poister, 1978; Sayer, 1984; de Vaus, 1986). The author for this research used a combination of simple, systematic and cluster random sampling techniques because the kampungs were of different types and sizes, and the categories of the areas could be divided into clusters based on the number of RWs (*Rukun Warga*), RTs (*Rukun Tetangga*), maps and block areas.

The basic procedure was first to draw a sample of areas using cluster and simple random sampling. Initially, the five kelurahans in Jakarta described earlier were

selected for the large areas, and then progressively smaller areas within the large ones were sampled. Having selected RWs (neighbourhood groups) we need to draw up a list of all the RTs (block groups) on each RWs and then draw a random sample of RTs as the sample unit.

A unit of RT is usually a group based on the number of houses which are located in a particular block. Therefore, the sample unit of RTs was available in the Rukun Warga office or Kelurahan Office for each kampung study area. This was done because of the complicated bureaucracy which existed.

Eventually we end up with a sample of households and use a method of selecting individuals from the selected households using systematic sampling techniques.

5.4.3 Questionnaire Design for Surveys

One of the most common methods for obtaining information on how a programme is operating is to design a questionnaire and to apply it to a sample of participants (Bamberger and Hewitt, 1986). A questionnaire is " a set of questions which are asked and filled in by an interviewer in a face-to-face situation with another person" (Goode and Hatt, 1957:133). Therefore, the final product is a series of tabulations and statistical analyses, and these will be turned into a report showing in what way our findings bear on the hypotheses with which we set out.

The design of the questionnaire was guided by the research problem, hypotheses and survey objectives. To avoid bias resulting from questionnaire design, the questions are constructed in such a way that they are direct, simple and familiar to the respondents (Oppenheim, 1966). Nevertheless, some explanations by the interviewers were required to clarify certain points. In this way, a certain level of consistency could be achieved in the interviews. All the questions were designed as precoded because of the evident efficiency of such questions in interviewing, coding, tabulating and analysis.

A personal interview technique was used as it was thought to be the most appropriate technique for the study compared to the other main techniques, i.e. mail

questionnaires and telephone interviews. Using this technique, set questions were asked by the interviewer to elicit information from the respondents. It is a particularly useful technique for obtaining factual information, especially when some respondents are unable to read and write.

Two types of questionnaire were prepared to undertake the survey. The first was a household questionnaire which was administered to the heads of the households in every house. The second was a leadership questionnaire which was administered to the heads of RW and RT and some of the participants in the LKMD. With a clear understanding of questionnaire design, the following sections outline the objectives of the household and leadership surveys.

5.5 The Household Survey

There is no agreed definition of a household. The simple definition, adopted by the United Nations is "a household is a group of people who live and eat together". According to Casley and Dennis (1981:188), "a household comprises a person or group of persons generally bound by ties of kinship who live together under a roof or within a single compound and who share a community of life in that they are answerable to the same head and share a common source of food". In this study the household serves as the sampling unit while the unit of enquiry is the head of the household.

The household survey was aimed mainly at eliciting data and information on economic, social and cultural background characteristics, migration patterns and participation of heads of households in organisations and communities.

5.5.1 Questionnaire Design

The questionnaire set for the household was divided into 13 major headings as follows:

A. Background of the household

- B. Expenditure of household
- C. Mobility
- D. Housing
- E. Road
- F. Water supply
- G. Toilets
- H. Solid waste
- I. Drainage
- J. Electricity
- K. Community participation in the spirit of mutual-help
- L. Perception and opinion of Kampung Improvement Programme
- M. Satisfaction level towards urban development

Findings from this survey will highlight, from the household perspectives, the importance of quality of housing and infrastructure services, socio-economic and social characteristics, work experience participation and perception information to improve their prospect for securing improved living conditions and a better environment in their area. The details of the questionnaire for the household survey are shown in **Appendix 2**.

5.5.2 Sampling and Field Work

Samples are often quite small compared to the population they come from, and consequently the information can be obtained much more cheaply and quickly. In this research the population elements are the households in the kampung areas.

Sample size refers to the number of households from kampung areas interviewed. The required sample size depends on two key factors, namely the degree of accuracy required and the extent of variation in key characteristics of the population (de Vaus, 1986). The bigger the sample the higher would be the level of accuracy, other things remaining the same. Similarly, the lesser the variation in the population characteristics, the lesser would be the required sample size to achieve a given level of accuracy.

Therefore, given the financial and time constraints of this study, in each RW, a minimum of 50 percent of the total number of RTs were picked randomly, as an area of sample unit. Simple random sampling was done using the number of RTs, in this case by using variation of the odd and even numbers in each RW.

The sample frame of RT was available in the Rukun Warga (RW) office or Kelurahan Office for each kampung. Therefore, the sample head of household covered about 10 percent of the total households of the selected RT schemes or 5 percent of the total households in RW schemes or 2 percent of the settlers in each kampung study.

During the field work, one household from every ten housing units was interviewed using the systematic sampling technique with a random start. Given the selection procedure, households were interviewed assuming that the other households living in the housing would have similar socio-economic characteristics. Although it was difficult to keep the continuity in the absence of any proper road network and planned growth of the kampungs, existing mud roads and small paths were marked.

In order to have a reasonable rate of response in the survey, the interviewers were instructed to introduce themselves politely and explain to the respondents the purpose of the household surveys. Wherever appropriate, the lurah and managers of the KIP-MHT were first approached before the interviews were conducted. This was to ensure the smooth running of the interviews and to insure the full co-operation of the respondents.

The first day of each week was used only to identify the houses, the roads and the paths, and to get permission from every head of RW where the interviews would be conducted during the rest of the week. Every kampung location was surveyed two times. When finished, the author made an evaluation. If he was satisfied, he then continued to other kampung studies.

The time taken per sample in the household surveys of the kampung areas was longer than the interviews carried out in the leadership surveys. Therefore, the author, with the help of the head of neighbourhood groups (RW) and block-groups (RT), collected and interviewed all heads of households who comprised the sample in that area.

Table 5.2 shows the distribution of samples sizes for households, totally 582 samples (384 in improved kampungs and 198 in unimproved kampungs)

Table 5.2 Distribution of Samples Sizes of the Household

No	KELURAHAN/RW	TOTAL RT	AREA (HA)	TOTAL HOUSEHOLD	PERCENT	SAMPLE HOUSEHOLD
1	MENTENG					
	RW 01	16	7.2	892	5.1	45
	RW 03	15	7.5	680	5.0	34
	RW 08	16	9.6	758	5.0	38
	RW 10	12	7.3	479	5.0	24
2	KALI ANYAR					
	RW 03	11	6.3	669	4.9	33
	RW 04	12	4.4	606	4.9	30
	RW 05	11	2.6	463	4.9	23
	RW 07	12	3.2	389	4.9	19
	RW 08	15	4.7	825	4.9	41
3	PELA MAMPANG					
	RW 11	19	11.1	1,924	4.9	96
IMPROVED KAMPUNGS			57.6	7,685	5.0	384
4	SUNTER JAYA					
	RW 01	22	10.2	807	4.9	40
	RW 05	12	14.6	660	5.0	33
	RW 06	13	16.4	618	5.0	31
5	UJUNG MENTENG					
	RW 02	12	18.9	1,008	4.9	50
	RW 03	12	19.5	863	5.1	44
UNIMPROVED KAMPUNGS			79.6	3,956	5.0	198
TOTAL KAMPUNG STUDY AREAS			137.2	11,641	5.0	582

Source : Field survey, 1992.

5.6 The Leadership Survey

The neighbourhood (RW) and block groups (RT) play a fundamental role in managing and organising their neighbours in social activities and in developing their settlers. All activities of these RWs are obtained from contributions by the community, fees collected from the community, profits from fund-raising activities and from the government, especially the Department of Social Affairs and the Kelurahan office. Often, these groups experience difficulties in implementing their programmes, mainly because of a lack of funds and staff, both voluntary and paid.

The aim of these groups is to improve the welfare of people, and also to help the community in various community projects, such as building drains, repairing mosques and building community centres. Therefore, the leadership survey was aimed mainly at participation, perception, opinion, and satisfaction of people in the Kampung Improvement Programme.

Consultations with the lurah of each kampung study area established 90 leaders in improved kampungs and 52 leaders in unimproved kampungs, i.e. 142 in total. The rationale is that the heads of RTs are usually well informed and accountable in addressing key issue in their environment and KIP interaction.

5.6.1 Questionnaire Design

The second questionnaire was for the leaders of the neighbourhoods and communities. Only the head of the block group (RT) and community (LKMD) were included in this survey. The contents of the questionnaire included:

- A. The neighbourhood development institution (LKMD)
- B. Participation in the Kampung Improvement Programme
- C. Perception and opinion of the Kampung Improvement Programme
- D. Factors affecting the Operation and Maintenance of the KIP
- E. Satisfaction levels toward urban development

Findings from the leadership survey provided the views of neighbourhood development institutions concerning the prospects and problems in the development of a better environment to achieve urban development and improved standards of living of the neighbourhoods. The details of the questionnaire for the household survey is shown in **Appendix 3**.

5.6.2 Sampling and Field Work

As mentioned in previous sections 5.4.2 and 5.5.2, the sample size of the leadership survey depended on the total number of RW and RT in the kampung study areas. The minimum sample size was arbitrarily set at 50 percent of the total RTs in each RW. Therefore, simple random sampling was done using the number of RTs, in this case by using variation of the odd and even numbers of RTs in every RW.

Table 5.3 Distribution of Sample Size of the Leadership

No	KELURAHAN/RW	TOTAL RT	AREA (HA)	PERCENT	NUMBER SAMPLE
1	MENTENG				
	RW 01	16	7.2	56.2	9
	RW 03	15	7.5	60.0	9
	RW 08	16	9.6	56.2	9
	RW 10	12	7.3	58.3	7
2	KALI ANYAR				
	RW 03	11	6.3	63.6	7
	RW 04	12	4.4	58.3	7
	RW 05	11	2.6	63.6	7
	RW 07	12	3.2	58.3	7
	RW 08	15	4.7	53.3	8
3	PELA MAMPANG				
	RW 11	19	11.1	105.2	20
IMPROVED KAMPUNGS			57.6	64.7	90
4	SUNTER JAYA				
	RW 01	22	10.2	54.5	12
	RW 05	12	14.6	58.3	7
	RW 06	13	16.4	53.8	7
5	UJUNG MENTENG				
	RW 02	12	18.9	108.3	13
	RW 03	12	19.5	108.3	13
UNIMPROVED KAMPUNGS			79.6	73.2	52
TOTAL CASE STUDY			137.2	67.6	142

Source : Field survey, 1992.

The distribution of samples of the leadership survey is shown in Table 5.3. The total sample size for leadership was 142 (90 in improved kampungs and 52 in unimproved kampungs). Interview sessions held with heads of RTs lasted, on average, one and a half to two hours. The author administered some interviews himself since it was considered crucial to have direct first-hand discussions with established people in the field. Face-to-face interviews usually resulted in a higher response rate and a lower possibility of unanswered questions.

Some logistical problems were encountered in this survey. The timing of the interviews was crucial since many of the leaders worked from early in the morning until noon during the weekdays and most of them stayed at home during the weekends. Therefore, the interviews were normally conducted in the afternoons and evenings and during the weekends. If the leaders of the RT were not available, a revisit was made at

another time. If it was still difficult to contact the respondents, the interview was called off and changed to a new respondent.

5.7 Method of Data Analysis

Once data have been collected they have to be analysed. Data analysis is one of the key stages in research. It involves data organisation and data manipulation to demonstrate the relationship between research variables to explain the phenomena being studied. Statistical analyses are used to establish the significance of these relationships through hypotheses testing. This section undertook two phases of data analysis: tabulation and analysis.

5.7.1 Tabulation

After the completion of the questionnaires, the editing of data gathered from the respondents was conducted immediately. The purpose was to check for completeness, accuracy and uniformity (Moser and Kalton, 1971). For instance, every question must carry an answer. If there were no answer to a question we had to decide whether the respondents refused to answer, the interviewer forgot to ask or the question was not applicable so that appropriate action could be taken.

However, inconsistencies sometimes occurred in the answers given. Significantly, the inconsistent answer often appeared in the open-ended question related to reported monthly expenditure which calculated weekly or monthly expenditure from various sources. These data were carefully checked for completeness and recoded to ensure their accuracy and consistency.

Data from close-ended questions had been coded during the course of the survey. The raw data from the questionnaires were extracted, sorted and recorded into the computer to create two main different databases for the households and leadership. Every database from households or leadership has different databases for improved

kampungs (three databases) and unimproved kampungs (two databases). As a result, there were ten different databases.

The Dbase IV computer package was used to accomplish this task. The author undertook all the coding and data input himself and double-checked the work to ensure there were no keyboard errors.

5.7.2 Analysis

Analysis means breaking down cases into groups, making comparisons and looking for relationships among the variables of interest. The mode of statistical analysis and particular techniques used depend on the research design and the types of measures employed (Poister, 1978; Sayer, 1984). The completed databases were translated into the SPSS/PC + language (Statistical Package for Social Sciences/Personnel Computer) to prepare them for an introductory statistical analysis.

In order to test hypotheses on the extent of sustainable urban development in the Kampung Improvement Programme, a number of appropriate statistical techniques were adopted. As mentioned in Chapter One, this study consists of four main objectives related to the impacts of urban development policy in the Kampung Improvement Programme in Jakarta. In the process of justifying these objectives, six main hypotheses with fifteen sub-hypotheses have been constructed. It is necessary to mention here that all hypotheses and objectives are interrelated.

In terms of techniques of analysis, non-parametric analyses have generally been used. This is simply because of the nature of the data collected in this study which are mostly measured on a nominal scale and the distribution of data for the major dependent variables does not suggest normality in the population distribution. A prerequisite for the use of parametric test is the need to satisfy various assumptions which include the normality in population distribution, homoscedastic distribution of variance and continuous measurement of data (Siegel, 1956; Bryman and Cramer, 1990).

For the preliminary analysis, descriptive statistical procedures, such as means, medians and frequencies, were used to describe important characteristics and patterns of the data derived from the two survey groups and five kampung study areas. Chapter Six is devoted to a discussion of these introductory findings.

It is suggested that the general statistical techniques for analysis in this research will be descriptive and simple, such as cross-tabulations and frequency distributions. Cross-tabulations and frequency distributions were used to display the distribution of related variables, especially in providing background information on the respondents. This is the most commonly used method in social science studies (Blalock, 1960; de Vaus, 1986;). Blalock (1960:560) argues that "the simplest form of representing research findings is the frequency distribution or cross-tabulation". The tables display the joint frequency distribution of cases according to two or more classified variables. Therefore, in this research, a similar approach has been adopted to test the hypotheses.

Tipple and Willis (1991:126-127) suggest that classification techniques are useful ways to group individual cases on the basis of common characteristics. Although such classification can appear objective and immutable, in fact, the basis for such classification is subjective.

However, when and if necessary, the cross-tabulation tables also summarise the relationships with a measure of association or a test of statistical significance, such as the chi-square which has been used in certain parts of the study. This chi-square analysis is used to evaluate whether or not frequencies which have been empirically obtained differ significantly from those which would be expected under a certain set of theoretical assumptions (Black and Champion, 1976:161). Ultimately, this analysis was used for evaluation and comparison of such classifications in improvement of urban services between improved and unimproved kampung areas. Discussions of the hypothesis testing are presented in Chapter Seven. Chapter Eight presents the conclusions and recommendations of this research.

5.8 Summary

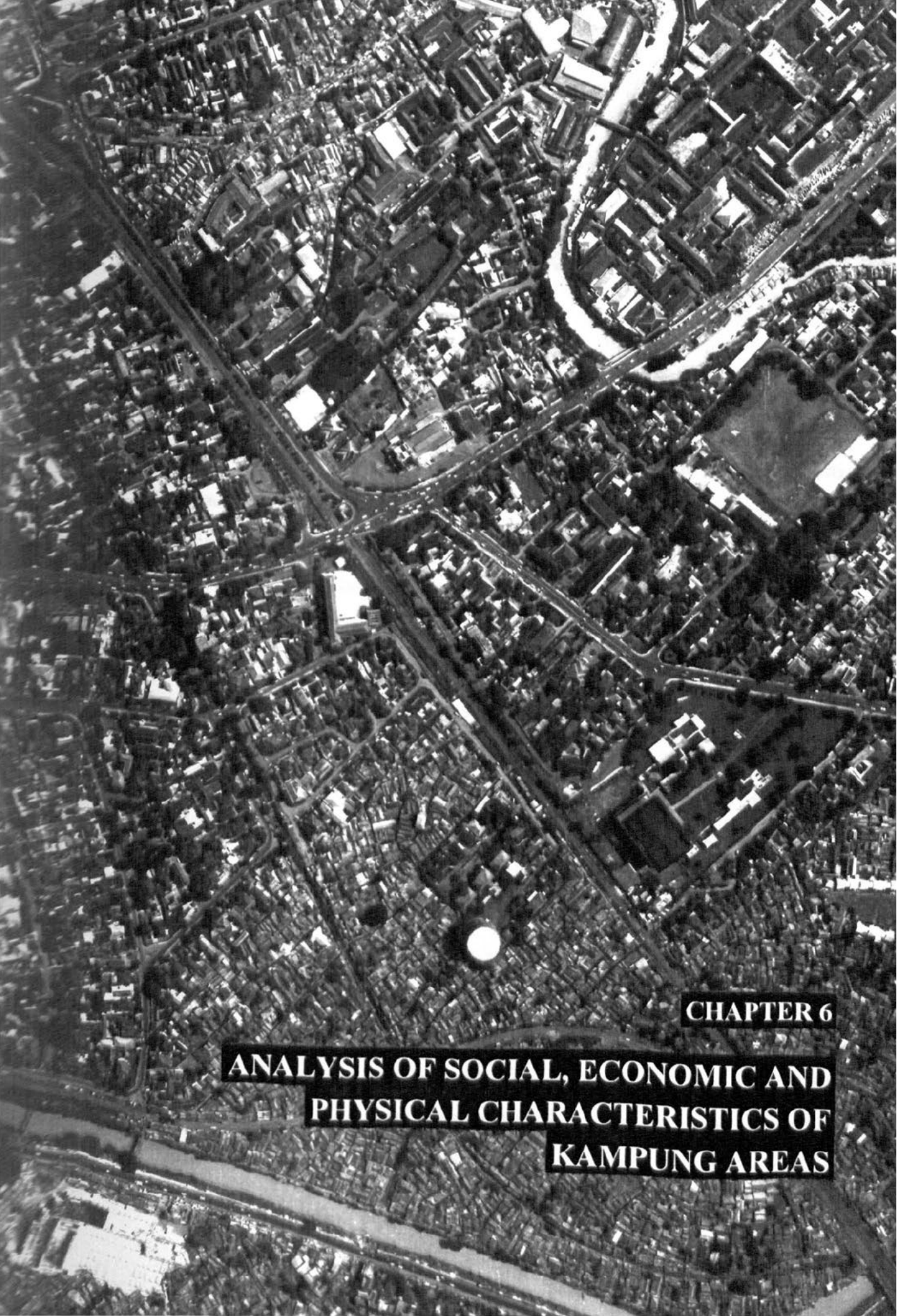
The main theme of this chapter has been to explain the research methodology and how this research has been organised. Various approaches of research design suggested by academics were reviewed. Based on this review, a design for the current research was set.

The characteristics of the selection of kampung study areas were described. The kampung study areas are divided into two main categories: first, **improved kampungs** that are kampung areas had already been improved by the Kampung Improvement Programme, and second, **unimproved kampungs** that are kampung areas are yet to be improved. The selection of the kampung study areas concentrated on the extent to which their selection was governed by the policy and criteria from the Kampung Improvement Programme in Jakarta.

This was followed by a selection on the survey methods and data collection which discussed matters relating to survey, questionnaire design, sampling design and techniques, and the implementation of the survey in the kampung study areas.

The respondents are divided into two main groups: the households and the leadership. This research applied simple random, systematic and cluster sampling techniques to select the sample unit. The field work was successful in interviewing five lurahs and managers of BAPPEM P-MHT. Based on the interview with the lurahs, 142 RTs were selected as the sample unit areas, and further to select a sample of heads of households and leadership. As part of this study 582 heads of households and 142 leaders were interviewed.

The final section of this chapter described the development of the analysis that will be undertaken in the following chapter.



CHAPTER 6

**ANALYSIS OF SOCIAL, ECONOMIC AND
PHYSICAL CHARACTERISTICS OF
KAMPUNG AREAS**

CHAPTER SIX

ANALYSIS OF SOCIAL, ECONOMIC AND PHYSICAL CHARACTERISTICS OF KAMPUNG AREAS

6.1 Introduction

This chapter presents the analysis of social, economic and physical characteristics of kampung areas. The purpose of this chapter is to give a general picture of the sample population in kampung areas that have already been improved by KIP (referred to below as "*improved kampungs*") and kampung areas that are as yet unimproved by KIP (referred to below as "*unimproved kampungs*"), as mentioned in the previous chapter. Therefore, readers can understand the population better before going on to examine the impact issues of the sustainable urban development in kampung improvement programme (KIP).

It was mentioned in Chapter Five that during the field work about 384 heads of households and 90 leaders in improved kampungs and 194 heads of households and 52 leaders in unimproved kampungs were interviewed. It is believed that findings and observations made concerning these households reflect their existing socio-economic conditions and the physical characteristics, and leadership reflects their existing activity and performance in community experience.

Therefore, in the investigation, comparisons between improved kampungs and unimproved kampungs will often be made. The following analysis is based on the household survey, the leadership survey and the interviews with lurah and staff of BAPPEM P-MHT which were undertaken during the field work.

6.2 Characteristics of Respondents

In this section various groups of people living in kampungs can be identified and classified into different types according to their socio-economic characteristics. In settlements such as the kampung areas of Jakarta, residential decisions are taken not by individuals, but by members of a household. Therefore, the arguments in this study will focus on the household as a respondent and as a basic unit of analysis. Respondents in the study area are the heads of households.

This survey found that 370 respondents were male (96 percent) in improved kampungs and 197 respondents (99 percent) in unimproved kampungs, whilst the rest of respondents were female. This suggests that a majority of heads of households are male and female heads of households are caused by their husband's death.

6.2.1 Education Level

The education system in Indonesia is basically aimed at achieving three levels of educational attainment, namely primary, secondary and tertiary. Primary education is called primary school (*Sekolah Dasar*), secondary education is first high school (*Sekolah Menengah Pertama*), and second high school (*Sekolah Menengah Atas*), and tertiary education consists of universities or colleges. It takes six years in school to complete primary school, three years to complete first high school, three years to complete second high school, and two years or more to complete tertiary education. Since only about 3.5 to 6.3 percent of the heads of households in kampung areas had tertiary education in universities or colleges, the discussion on the education level in this section will be confined only to primary and secondary education.

The education level among the heads of households shown in Table 6.1, reveals that 4.4 percent of the total respondents in improved kampungs and 3.5 percent of the total respondents in unimproved kampungs had no formal education. It reveals that most of the heads of households, approximately 34.7 percent in improved kampungs

and 51.5 percent in unimproved kampungs, had primary education. This level of education would only enable the head of household to read and write.

Table 6.1 Education Background of Heads of Households

LEVEL OF EDUCATION	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
1. No schooling	17	4.4	7	3.5
2. Primary education	133	34.7	102	51.5
- Finished Primary	114	29.7	80	40.4
- Not Finished Primary	19	5.0	22	11.1
3. Secondary education	210	54.6	82	41.5
- Finished First school	70	18.2	30	15.2
- Not Finished First school	16	4.2	0	0
- Finished High school	120	31.2	51	25.8
- Not Finished High school	4	1.0	1	0.5
4. Tertiary education	24	6.3	7	3.5
- University/College	24	6.3	7	3.5
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

A further breakdown of the data reveals that the more educated were to be found in the improved kampungs areas where 31.2 percent of heads of households had finished high school, compared to 25.8 percent of heads of households in unimproved kampungs. This is similar to the results of a study that was conducted by Darrundono (1988:143), where heads of households were found to have relatively low levels of formal education. The survey conducted shows that 10.0 percent of the heads of households of kampung areas in Jakarta had no education and only 46.0 percent of the heads of households had a primary education.

There is a marked difference between the education level of heads of household among the kampungs studied (Table 6.2). Kelurahan Menteng had a higher proportion of its household heads (63.6 percent) with upper secondary education than any other kelurahans. In contrast, the proportion of heads of households in Kelurahan Sunter Jaya and Ujung Menteng (51.9 and 51.1 percent) had only completed primary education. This is not surprising as Kelurahan Menteng is located in the inner city which attracts a larger proportion of migrants employed in the formal sector and which generally requires higher educational qualifications compared to those in Kelurahan

Sunter Jaya and Ujung Menteng where residents are mainly employed in the informal sector.

Table 6.2 Educational Level of Heads of Households by Location in Kampung Study Areas

LEVEL OF EDUCATION	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
1. No School	5	3.6	10	6.8	2	2.1	1	1.0	6	6.4
2. Primary	43	30.7	61	41.2	29	30.2	54	51.9	48	51.1
3. Secondary	89	63.6	69	46.6	52	54.2	44	42.3	38	40.4
4. Tertiary	3	2.1	8	5.4	13	13.5	5	4.8	2	2.1
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

Even though, in general, residents of both improved kampungs and unimproved kampungs have low levels of education, there are differences. In improved kampungs about 54.6 percent of the total respondents had a secondary education compared to 41.5 percent of the total respondents in unimproved kampungs who only had a primary education.

6.2.2 Occupations

The economic activities in Jakarta are predominantly in the administrative, business and a commercial trade sectors. This is evident from the fact that more than half of its employed residents were engaged in private services, manufacturing and industry (Sjahrir, 1992).

Various types of occupations have been identified among the survey respondents and they vary from the formal sector, including the military, civil service, teachers, and private services to the informal sector, including vendors, small businessman and small builders. In the questionnaire, respondents were asked to reveal their type of occupations and the category of their occupations. A long list of occupations were observed in the kampung areas. Therefore, the categories of occupation have been classified depending on the nature of the employers and the sector of employment.

Table 6.3 gives the breakdown of occupations of heads of households in kampung study areas. The table shows that 33.6 percent of the total respondents in improved kampungs and 36.4 percent of the total respondents in unimproved kampungs are in the formal sector where salaries are higher and regular. They are mostly employed in enterprises which offer public and private services. About 56.5 percent of the total respondents in improved kampungs and 62.6 percent of the total respondents in unimproved kampungs work in the informal sector.

Table 6.3 Occupation of Heads of Households

OCCUPATION	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
1. Formal sectors	129	33.6	72	36.4
- Military	10	2.6	3	1.5
- Civil Service	42	10.9	20	10.1
- Teachers	13	3.4	7	3.6
- Private Services	64	16.7	22	11.1
2. Informal sectors	217	56.5	124	62.6
- Vendors	43	11.2	19	9.6
- Small Business	46	12.0	8	4.0
- Mechanics	26	6.8	6	3.0
- Electricians	16	4.1	5	2.5
- Taxi/Public Drivers	24	6.2	10	5.1
- Building Workers	32	8.3	18	9.1
- Carpenters	6	1.6	4	2.0
- Home Industry	11	2.9	10	5.1
- Industrial Workers	5	1.3	40	20.2
- Security/Guards	8	2.1	4	2.0
3. Unemployment	6	1.6	2	1.0
4. Retired	32	8.3	20	10.1
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

The highest percentage of informal sector occupations is found to be in the small business sector (12.0 percent) followed by vendors (11.2) and building workers (8.3 percent) for respondents in improved kampungs and industrial workers (20.2 percent) followed by vendors (9.6) and building workers (9.1 percent) for respondents in unimproved kampungs. These figures are consistent with the findings from level of education. Most of the poorly educated were working in the informal sector. Therefore, there is a relationship between type of occupation and level of education in this kampung study. This seems to suggest that further investment in education may

well have a positive effect on income, which in turn would promote kampung improvement.

Furthermore, the occupational structure of the heads of households in both improved kampungs and unimproved kampungs shows a more widespread distribution of occupational types, including professional or technical categories of self employment. Unemployment among the heads of households in both kampung areas was rather low, only 1.6 percent in kampung improved and 1.0 percent in unimproved kampungs. However, the retired who have a pensioner income from the government in both improved and unimproved kampungs show quite a difference, 8.3 percent in improved kampungs and 10.1 percent in unimproved kampungs.

6.2.3 Household Size

Average household size in a country as a whole is one of the important indicators of development prospects. The size of households in developing countries is much larger than in many countries in the developed world. The smallest household size identified in the kampung study areas consisted of three persons (father, mother and child) while the largest household had ten or more persons in the household. It was understood from the interviews that those who reported having a very large household size, in fact had additional family members living with them (i.e., extended family members as grand father, father, son and grandchildren). Therefore, this analysis, following Rakodi (1993:212), considered the extended family, or all related people living together in a house, as the unit of measurement.

Table 6.4 Percentage Distribution of Household Size

Household Size (persons)	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
3	79	20.6	14	7.1
4 - 5	145	37.8	99	50.0
6 - 7	85	22.1	49	24.7
8 - 9	48	12.5	25	12.6
10 and over	27	7.0	11	5.6
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

The average household size of 4.7 in Jakarta does not differ very much from the national average of 4.5 (Central Bureau of Statistics, 1991). However, Table 6.4 shows that the average household size of 4 to 5 persons per household in the unimproved kampungs (50.0 percent) were slightly more numerous than in the improved kampungs (37.8 percent) and moreover, higher than the national average.

Table 6.5 Household Size by Location in Kampung Study Areas

HOUSEHOLD SIZE (persons)	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
3	26	18.6	33	22.3	20	20.8	8	7.7	6	6.4
4-5	46	32.9	60	40.5	39	40.6	40	38.5	59	62.8
6-7	32	22.9	27	18.2	26	27.1	30	28.8	19	20.2
8-9	26	18.6	14	9.5	8	8.3	18	17.3	7	7.4
10 and over	10	7.1	14	9.5	3	3.1	8	7.7	3	3.2
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0
Overall Mean*	5.8		5.4		5.2		6.1		5.3	

Note : *The overall mean of household size in each of the kampung study areas has been calculated from the household size and the number of respondents. The mean household sizes by classification were assumed to be 3, 4.5, 6.5, 8.5 and 10. These were multiplied by the number of respondents in each kampung areas and the total result was divided by the total number of respondents. Although it is acknowledged that the results of these calculations obtained in this manner are subject to an unknown amount of error, the results obtained are close to those given in the Indonesian Census, and hence are felt to be acceptable.

Source: Field Survey, December 1992.

The variation of the household sizes among the kampung study areas (see Table 6.5) is noteworthy. Kelurahan's Kali Anyar, with a mean household size of 5.4, and Pela Mampang with 5.2, as improved kampungs, had a relatively lower household size than Kelurahan Menteng, with a mean of 5.8. On the other hand, Kelurahan Sunter Jaya, an unimproved kampung, had the highest mean household size of 6.1.

6.2.4 Household Incomes.

In interpreting the data on household incomes, care should be taken as obtaining accurate income data through a survey is difficult. In the survey, the heads of household were asked about their monthly income in terms of cash income. No attempt was made to include other forms of income, such as in kind, as the problems involved in doing so would have been enormous. However, we could safely assume,

within a margin of error, that the data obtained from the survey is a reasonable estimate since most of the respondents are wage earners.

Income group distribution representing a section of population living in an area can give an understanding about the group's identity as a whole in that particular society or the country itself. It is well understood that income is an important indicator in identifying an individual's population and status in society. One of the goals of KIP proposes to raise the income levels of the residents. The available information shows that kampung areas have been coming from situations where the income is relatively low.

The average household income in Indonesia according to the National Socio-Economical Survey (*SUSENAS or SURvay Social Economi NASional*) 1984 had reached Rp. 90,836 per month (US \$ = Rp. 1,075). The average household income in the urban areas was Rp. 148,440 per month whereas in rural areas was Rp. 74,481 per month (Sugito, 1988:407). In Jakarta, the distribution of household income for 1984 is shown in Table 6.6. About 47.3 percent of the total households received less than the average of income in urban areas (< Rp. 150,000) and 52.7 percent received more than the average.

Table 6.6 Distribution in Percent of Household Income in Jakarta in 1984

MONTHLY INCOME (Rp.)	Percentage
< 50,000	7.9
50,001 - 100,000	12.1
100,001 - 150,000	27.3
150,001 - 200,000	18.8
200,001 - 250,000	11.8
> 250,001	22.1

Source: Census and Statistical Office, Jakarta, "SUSENAS 1984".

A study undertaken by Papanak and Dorodjatun in 1978 found that the average household income in kampung areas in Jakarta was approximately Rp. 8,400 per month (US \$ = Rp. 400). The research by Karamoy and Dias (1986) found that the average income of heads of households in kampung Jakarta was Rp. 51,000 per month (US \$ = Rp. 720). These studies were made in respect of the household income in kampung

areas in Jakarta which appeared to have increased in value. However, this increase in the level of income did not take into account the change in the real value of the Rupiah over that decade.

Furthermore, the present household income in the kampung study areas is shown in Table 6.7 in money values (see Chapter Three, p.66). If compared with income figures in Table 6.6 (based on 1984 prices, the most recent provided by Census and Statistical Office of Jakarta), the present average household income of kampung study areas has changed. The number of respondents receiving income of less than Rp. 150,000 in the improved kampungs decreased from 47.3 percent in 1984 to 41.4 percent in 1992. On the other hand, the number of respondents in the unimproved kampungs receiving income less than Rp 150,000 increased to 54.5 percent in 1992.

Although it must be noted that these are in money values rather than real values, and therefore the existence of inflation no doubt diminishes the rise in incomes in improved kampungs, given that there is an increase in the proportion of the population in unimproved kampungs over this period. The data do at least confirm the basic difference in economic opportunities that appear to exist in the two kinds of areas.

Table 6.7 Present Monthly Household Income in Kampung Study Areas

MONTHLY INCOME (Rp)	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
< 50,000	20	5.2	19	9.6
50,001 - 100,000	41	10.7	30	15.1
100,001 - 150,000	98	25.5	60	30.3
150,001 - 200,000	92	23.9	48	24.2
200,001 - 250,000	71	18.5	28	14.1
250,001 - 300,000	41	10.7	10	5.1
> 300,001	21	5.5	3	1.5
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

Generally, in this analysis, income groups have been re-classified into four major income categories: lowest income, low income, middle income and high income. The Ministry of Housing (1990) has stated that the composition of monthly income of households in urban areas were as follows: under the Rp. 100,000 as the lowest

income group; Rp. 100,000 - 200,000 as a low income group; Rp. 200,001 - Rp. 450,000 as a middle income group ; and more than Rp. 450,000 as the high income group (US \$ = Rp. 1,910).

The average of household income in improved kampungs was Rp. 171,810 and in unimproved kampungs Rp. 146,717 with a range from Rp. 50,000 to over Rp. 300,001. From Table 6.7, these average household incomes of kampung study areas has been calculated from the mean monthly income groups and the number of respondents and the total result was divided by the total number of respondents. The mean monthly incomes by classification were assumed to be Rp. 50,000, Rp. 75,000, Rp. 125,000, Rp. 175,000, Rp. 225,000, Rp. 275,000 and Rp. 300,001. Although it is acknowledged that the results of these averages obtained in this manner are subject to an unknown amount of error, the results obtained are close to those given in the Indonesian Census, and hence are felt to be acceptable. On the basis of these calculations, there are income differences between the heads of household in the two types of kampungs.

Figure 6.1 Comparison of Household Incomes between Kampung Study Area in 1992 and Jakarta in 1984

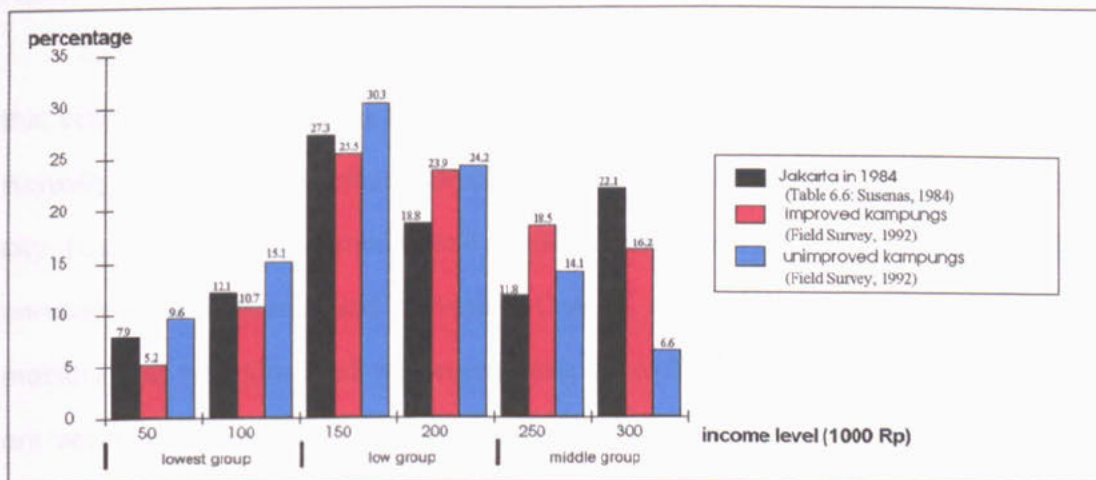


Figure 6.1 shows that in the improved kampungs the percentage of the lowest income group dropped between 1984 and the field survey in 1992. While the improved kampungs had an increase in percentage of income groups moving from

lowest to low income groups, the unimproved kampungs still consisted primarily of the lowest income groups. Still, in both kampung studies, the 'average' household, in terms of mean income, was still in the low income group. None of the respondents belonged to the highest income group. This finding indicates that low income status of the respondents is probably related to their living conditions in kampungs. However, in real terms, the increase does not reflect reality as other factors, such as increases in prices of goods, are yet to be considered.

6.2.5 Origin of the Respondents.

Migration has played a very important part in the growth of population in Jakarta. Jakarta has long served as a powerful magnet to migrants and there is evidence of a "brain drain" from other regions of the country to Jakarta (UN, 1989:5). This is explained by the fact that kampung areas have been built on vacant land near existing settlements and work places. In the census definition, a person must live in a place for six months to be classified as resident; hence migrants moving to urban/kampung areas for less than six months are classified as rural. As such, the kampung growth depends on the migration of the people from within and outside the region.

However, there is a substantial and growing body of field evidence that indicates that census lifetime migration represents only the visible tip of the iceberg in Indonesia. Actually, there are larger, more complex patterns of movement between kampung and city (e.g., commuting, circular and seasonal migration) that have generally gone unrecorded in censuses and surveys. One of the major types of non-permanent mobility that was identified was commuting up to 50 kilometres (regularly, although not necessarily every day) to work or attend school. Another was circular migration, whereby the movers did not change their usual place of residence in the kampung but were absent in the city for up to six months, typically engaging in non-permanent employment and usually maintaining some type of kampung-based employment (Hugo, 1982, quoted from UN, 1989).

This survey has found that approximately 70 percent of heads of household in improved kampungs and 63 percent of heads of household in unimproved kampungs were from outside of Jakarta and only one third were originally born in Jakarta. This migration was considered for the heads of household only. Most of the outside migrants in improved kampungs came almost entirely from the region of West Java and Central Java.

This is evident from the survey data given in Table 6.8, where it is shown that 37.1 percent of the total respondents in Kelurahan Menteng and 37.8 percent of the total respondents in Kelurahan Kali Anyar came from West Java; and in Kelurahan Pela Mampang 59.4 percent of the total respondents came from Central Java.

Table 6.8 Migration to Kampung Study Areas

PREVIOUS LOCATION OF REGION	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
Jakarta	41	29.3	21	14.2	22	22.9	11	10.6	35	37.2
West Java	52	37.1	56	37.8	12	12.5	15	14.4	14	14.9
Central Java	29	20.7	47	31.8	57	59.4	63	60.6	31	33.0
East Java	9	6.4	5	3.4	2	2.1	10	9.6	3	3.2
Sumatra	6	4.3	12	8.1	2	2.1	4	3.8	8	8.5
Kalimantan	1	0.7	3	2.0	1	1.0	0	0	0	0
Sulawesi	2	1.4	1	0.7	0	0	1	1.0	0	0
Maluku	0	0	0	0	0	0	0	0	3	3.2
NTB and NTT	0	0	3	2.0	0	0	0	0	0	0
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

Not surprisingly, different kampungs attract migrants from different sources. More than 60 percent of the total respondents in Kelurahan Sunter Jaya came from Central Java. In Kelurahan Ujung Menteng, an urban fringe area, 33 percent of the migrants came from Central Java and 37.2 percent of the migrants came from Jakarta, particularly from Central Jakarta. People from the inner city have moved to peripheral areas in order to find a better living.

In relation to period of migration to the kampung area in Jakarta, respondents have identified a range of periods starting from as early as 1964 to the late 1991. Migration to the kampung study areas has been classified into five periods shown in

Table 6.9. The period of migration was considered for migrant heads of household only. It has been mentioned in section 4.5 that the KIP in Jakarta has been implemented since 1969. Therefore, approximately 74 percent of the total respondents in improved kampungs and 67 percent of the total respondents in unimproved kampungs had lived there since the period before KIP started. According to the analysis mentioned above, considering the other family members, it can be assumed that almost all of the children of the respondents were born in these kampung study areas.

Table 6.9 Period of Migration to the Kampung Study Areas

Period	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
1991 - 1986	18	4.7	2	1.0
1987 - 1982	15	3.9	14	7.1
1981 - 1976	31	8.1	14	7.1
1975 - 1970	35	9.1	35	17.7
1969 - 1964	285	74.2	133	67.1
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

6.2.6 Home Ownership

Slightly more than two thirds of the respondents in the kampung study owned their houses, while the others either rented or lived in houses provided by their families or other private owners. Table 6.10 reveals that a higher percentage of those owning their houses were observed in Kelurahan Sunter Jaya, an unimproved kampung with a 90.4 percent ownership rate, while all those in improved kampungs had ownership rates of 75 to 84 percent.

Table 6.10 House Ownership Status by Location in Kampung Study Areas

HOUSING STATUS	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
Owned	105	75.0	125	84.5	77	80.2	94	90.4	76	80.9
Rented	28	20.0	11	7.4	16	16.7	8	7.7	15	16.0
Family owned	7	5.0	12	8.1	3	3.1	1	1.0	3	3.2
Government owned	0	0	0	0	0	0	1	1.0	0	0
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

One of the prerequisites for participation in KIP is that settlers must either be a landowner or reside on government land. From the field survey, most of the land in the kampungs studied was predominantly government land or owner occupied. Only a small percentage belonged to a landlord (6 to 19 percent), as shown in Table 6.11. However of those who did own land, the percentages are higher in Kelurahan Pela Mampang (80.2 percent), an improved kampung and Kelurahan Ujung Menteng (80.9 percent), an unimproved kampung. Some areas are more concentrated on government land. These include Kelurahan Kali Anyar, an improved kampung, which is 60.1 percent on government land, and Kelurahan Sunter Jaya, an unimproved kampung, which is 75.0 percent on government land.

Table 6.11 Land Ownership Among the Households in Kampung Study Areas

STATUS OF LAND	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
Owner occupied	44	31.4	47	31.8	77	80.2	20	19.2	76	80.9
Government land	69	49.3	89	60.1	2	2.1	78	75.0	7	7.4
Landlord	27	19.3	12	8.1	17	17.7	6	5.8	11	11.7
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

Therefore, there are a differences of ownership types between improved kampungs and unimproved kampungs. House ownership status in improved kampungs is normally higher on owner-occupied land, but houses in unimproved kampungs are more likely to be on government land.

6.3 Characteristics of Housing in Study Areas

In this section various types of housing found in the kampung study area is analysed. This is to see how many types of houses exist in terms of their type, size, number of rooms, construction, and status by kampung. It was noted in the previous chapter that the nature of settlements in the kampung areas was semi-permanent or temporary construction (see section 3.5 in Chapter Three). Therefore, it is expected that in spite of the influence of urban expansion, most of the houses in the kampung areas would be of a temporary nature.

6.3.1 Housing Conditions

In this section, an attempt has been made to examine the various materials used in housing. In the census definition three major construction types were identified: permanent houses with solid walls, cement floors, and tiled roofs; temporary houses of bamboo matting walls, earthen floors, thatched roofs, and sometimes no windows; and semi-permanent houses with some combination of temporary and permanent materials. The physical condition of a house is a major selection criteria for inclusion in the KIP (see Appendix 1B). In turn, once selected, housing improvement is given high priority. The most common among these conditions in kampung areas is houses of semi-permanent and temporary construction. This condition constitutes more than 59.4 percent of the total of housing stock in Jakarta, which are of semi-permanent and temporary condition, while permanent houses comprise 40.6 percent of the stock (see Table 4.5). Therefore, it is expected that most of the houses in the kampung areas would be of semi-permanent or temporary status.

The earlier study from Darrundono (1988:162) has found that the level of housing quality in improved kampungs was 74 percent permanent houses, 17 percent semi-permanent houses and 9 percent temporary houses. In unimproved kampungs this spread was much smaller, 29 percent, 38 percent and 33 percent respectively.

Table 6.12 Housing Conditions by Location in Kampung Study Areas

HOUSE CONSTRUCTION	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
Permanent	104	74.3	116	78.4	71	74.0	28	26.9	17	18.1
Semi-permanent	31	22.1	24	16.2	15	15.6	55	52.9	54	57.4
Temporary	5	3.6	8	5.4	10	10.4	21	20.2	23	24.5
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

Compared to figures in Table 6.12 which present the housing conditions in the kampungs studied, the improved kampungs tended to have better, more permanent housing. 74.3 percent of houses in Kelurahan Menteng, 78.4 percent in Kelurahan Kali Anyar and 74.0 percent in Kelurahan Pela Mampang were permanent. Only 3.6

percent, 5.4 percent and 10.4 percent, respectively were of temporary condition (see Plate 6.1). This condition indicates that indirectly, there is an improvement of housing condition as a result of KIP.



Plate 6.1

Housing conditions in improved kampungs. Some of them have permanent construction and there are houses with two storeys

However, in the unimproved kampungs, about 73.1 percent of the total respondents in Kelurahan Sunter Jaya and 81.9 percent in Kelurahan Ujung Menteng were still in semi-permanent and temporary condition (see Plate 6.2). It is interesting to see that most the houses in unimproved kampungs have been under construction for a considerable time. This finding suggests that almost the respondents need to improve their living conditions.

6.3.2 Types of Houses

Three types of houses were observed in the kampung study areas: one storey detached; two storeys detached and row or barrack houses. The major common types of housing in kampung areas are one storey detached houses and row or barrack houses. As there is little space within the kampungs, adding a room horizontally is virtually impossible, leading people to develop and improve their houses by adding storeys.



Plate 6.2

House conditions in unimproved kampungs of temporary construction.

Table 6.13 presents the comparison between improved and unimproved kampungs. In the improved kampungs, about 48.9 percent of the total houses of respondents were one storey houses and 31.3 percent were two storeys houses.

Table 6.13 Types of Houses of the Respondents

TYPE OF HOUSE	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
One storey	188	48.9	102	51.5
Two storeys	120	31.3	15	7.6
Row/Barrack	76	19.8	81	40.9
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

However, in unimproved kampungs, many people still stay in row or barrack houses which comprise 40.9 percent of the total number of houses. It was found that 51.5 percent of the total number of houses were of one storey.

6.3.3 House Sizes

House sizes are considered in terms of the floor area per unit i.e. the floor area of the main house covered under one roof. The initial findings indicated that there were variations. The government classification was adopted for this study. On the basis of the government classification, the majority of low income groups of the population are in houses of between 12 and 21 square metres, and moderate (low and middle) income groups live in houses of between 36 to 70 square metres. This means that people in the kampung areas live in houses in the range 10 and 50 square metres (Ministry of Housing, 1990).

Table 6.14 shows that the majority of respondents' houses in improved kampungs (76.5 percent) fall within this range of 10 to 50 square metres, compared to 61.1 percent in unimproved kampungs. It also shows that 28.9 percent of respondents in improved kampungs lived in houses of size 10 to 30 square metres, which is the lower classification by government. However, the highest proportion of respondents from unimproved kampungs stay in houses from 41 to 50 square metres, 23.7 percent.

Table 6.14 Percentage Distribution of House Sizes

SIZE OF HOUSE (M2)	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
10 - 30	111	28.9	30	15.2
31 - 40	103	26.8	44	22.2
41 - 50	80	20.8	47	23.7
51 - 60	48	12.6	35	17.7
> 60	42	10.9	42	21.2
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

This finding demonstrates that people in kampung study areas still live in housing at the minimum size classification by government, even though there have been

improvements in their settlements. It has been observed that usually row houses are smaller in size compared with the other two types.

6.3.4 Number of Rooms

It was expected that houses with larger floor areas would likely have greater number of rooms than those with smaller floor areas, with the exception of the two storey detached houses but these are very rare. A number of houses consisted of only one room. The single room served many purposes such as working, eating, sleeping and leisure. Therefore, most of the houses in the kampung areas with a single room did not have bathrooms and toilets.

As can be seen from Table 6.15, houses in improved kampungs tend to be larger than houses in unimproved kampungs. Whereas over 30 percent houses in unimproved kampungs have only one or two rooms, in improved kampungs this percentage is only 15 percent. The heads of households in the improved kampungs are more likely to live in houses with at least three rooms (82.9 percent) while in unimproved kampungs, this proportion living in houses of this size is lower (69.7 percent).

Table 6.15 Number of Rooms in the Houses of Respondents

NUMBER OF ROOMS	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
One	10	2.6	28	14.1
Two	48	12.5	32	16.2
Three	158	41.2	80	40.4
More than Four	168	43.7	58	29.3
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

In terms of the occupied rooms per person, it was found that the average occupancy rates among the respondents in the kampung study areas varies in different sizes of houses depending on the household size. As the number of rooms in the house have been regrouped into small houses with less than two rooms and large houses with more than four rooms, occupancy rates have been computed accordingly. It is found

that the occupancy rate for the small houses is 4.9 persons per room in improved kampungs and 5.3 persons per room in unimproved kampungs. While in large houses, this rate is 6.2 persons per room in improved kampungs and 6.7 persons per room in unimproved kampungs.

The relatively better housing condition (i.e. the availability of more than one room) in the improved kampungs areas were achieved by the low income inhabitants over a long period of time.

6.4 Characteristics of Infrastructure and Services

The rapid growth of urban population in developing countries has led to a corresponding increase in the demand for infrastructure and services. To varying degrees, the supply of infrastructure and services has not kept pace with the increasing need.

Many urban dwellings in developing countries lack piped water, sewage systems or toilet facilities. UNCHS (1986) argues that while the financial resources and administrative capacity of central and municipal governments are extremely limited, the cost of providing basic services is rising continuously. In several cities, central and local governments are unable to recover costs and therefore are forced to reduce the extension of services. Most of the slum dwellers and other disadvantaged groups do not have the capacity to pay for services because of lack of funds. Existing facilities, therefore, can not be properly maintained. In addition, because of the concentration of the poor in urban areas, there are more pressures on urban services in these urban areas compared with rural areas in the country.

Considering these arguments, the condition and availability of infrastructure and services in the kampung areas in Jakarta will be investigated. The purpose is to identify the real causes behind the inadequacy or non-existence of such services so that in the next chapter the hypotheses on the impact of KIP can be tested.

It is accepted that basic infrastructure and services, such as roads, water supply, and a sanitation system, have an important impact on individual human life and in the development of human settlements as a basis of raising standards of living. Therefore, those services will be the major aspect of discussion. Furthermore, other infrastructure and services, such as electricity, health services, security services and other public services, will also be examined. To manage this analysis, in the questionnaire, all aspects and conditions of infrastructure and services were asked directly to the heads of households.

6.4.1 Roads and Paths

The most important components of the KIP was the construction and improvement of roads¹ and footpaths². Not only did the footpaths improve accessibility, but also stimulated house improvement by the residents. In the kampungs, the footpath has a key social function. It is used as a playground, street market in the morning, for drying clothes and for street and wedding parties.

As a result of the installation of footpaths and roads, there was an improvement in access to the rest of the city, which made efficient and quicker transport possible. Consequently, kampung residents could go to market, schools, and to work more easily and in less time. Before improvement, during the rainy season, unpaved, muddy, and often flooded kampung paths were difficult to use.

In the questionnaire, the condition of construction of roads and footpaths in front of the house of respondents was asked. A good condition of the roads is asphalted and a good condition of the footpaths is cemented. The worst condition of the roads and footpaths is if there are no paved neighbourhood lanes and they are of brick, soil paved or mud.

Table 6.16 reveals that there is a marked difference in the condition of roads and paths between improved kampungs and unimproved kampungs. Almost all footpaths

and roads in the improved kampungs were in an improved condition. About 92.2 percent of the footpaths were cemented, and all the roads had been asphalted. From the figures 5.2, 5.3 and 5.4 (see section 5.3.1 in Chapter Five), it is evident that all improved kampungs have improved the condition of the roads and footpaths (see Plate 6.3). Still, there are some footpaths in poor condition (0.3 percent in brick and 0.5 percent in soil). Direct observation suggests that this is due to lack of maintenance on the part of the communities.

Table 6.16 Condition of Roads and Paths in front of the Houses of Respondents

QUALITY OF ROAD AND PATH	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
Asphalt	27	7.0	7	3.6
Concrete/Cement	354	92.2	25	12.6
Brick	1	0.3	67	33.8
Soil	2	0.5	76	38.4
Mud	0	0	23	11.6
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.



Plate 6.3

Roads and drainage condition in improved kampungs. It is good and always maintenance by the participation of the neighbours.

In contrast, the condition of roads and footpaths in unimproved kampungs was poor, as only 3.6 percent of the total roads were asphalted and 12.6 percent of the footpaths and roads were cemented (see Plate 6.4). Most of the footpaths in the unimproved kampungs are in very poor condition, as 33.8 percent are in brick and 38.4 percent of soil. Some footpaths are no more than mud (11.6 percent).

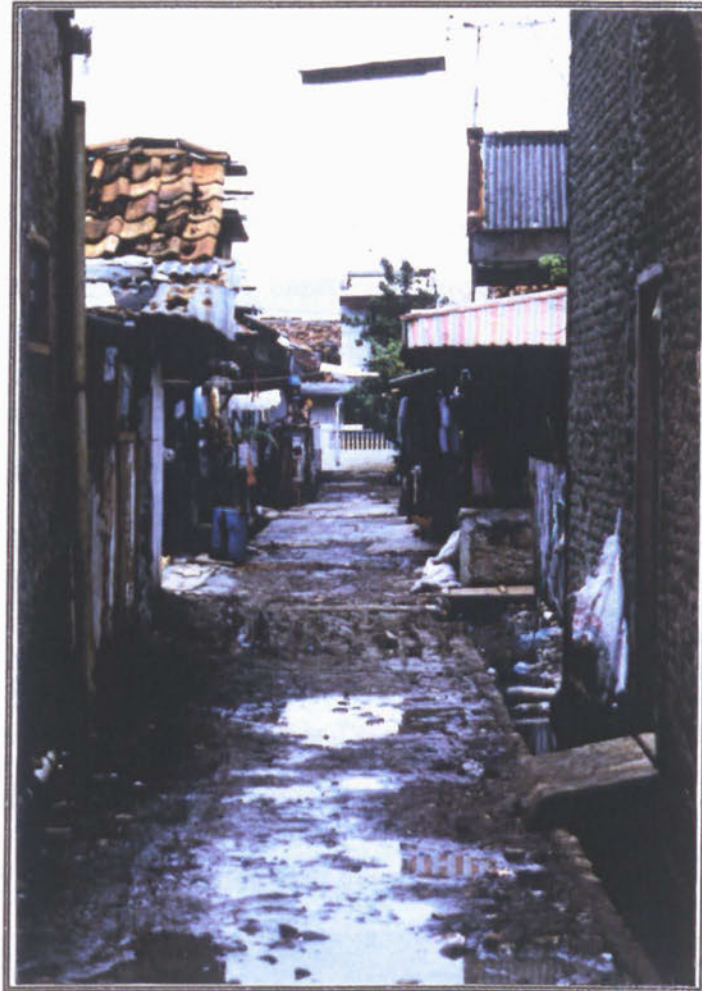


Plate 6.4

The poor condition of footpaths and drains in unimproved kampungs.

Of individual kampungs, Kelurahan Sunter Jaya has no asphalted roads, with most of them being a combination of brick, soil and mud (see Figure 5.5 - section 5.3.2 in Chapter Five). Kelurahan Ujung Menteng's access to the city and its roads within the neighbourhoods are very poor. There are no specific paths between houses.

Most of the paths have mixed uses as drains and paths (see Figure 5.6). Therefore, in the rainy season, most the unimproved kampungs are muddy and often flooded.

6.4.2 Drainage

Normally, the construction of drainage in cities and towns in Indonesia is an open drain system which is provided beside roads and paths. Therefore, there are links in condition between roads and drains. It is a common in kampungs in the study area that after a rain, water will overflow from ditches and the roads become a temporary stream.

In terms of construction and maintenance, drainage networks within unimproved kampungs compared with those in improved kampungs were in poor condition. Previous analysis also indicated that roads and footpaths were in poor condition in the unimproved kampungs. The poor condition of physical infrastructure could be partly attributed to the heavy flooding in the rainy season. In the selection of kampungs for improvement, the KIP authorities give highest priority to kampung areas with a high incidence of flooding in the rainy season (see Appendix 1A and 1B).

Table 6.17 shows the condition of kampung study areas during the rainy season. The respondent was asked to answer either "Yes" or "No" concerning the existence of flooding of roads and drains when it was raining.

Table 6.17 Condition of Floods in Rainy Season

FLOOD AREAS	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
Yes	53	13.8	111	56.1
No	331	86.2	87	43.9
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

It is apparent, that improved kampungs had improved their drainage systems as 86.2 percent of the total respondents answered "no" to the question on flooding in their area and only 13.8 percent answered "yes". From the observation of areas with a

problem in their drainage system, it is apparent that normally it is caused by a lack of maintaining the ditches and clearing the trash and mud.

Comparatively, more than 56 percent of the total respondents in unimproved kampungs answered "yes" that it floods in the rainy season. Therefore, unimproved kampungs still have problems in their drainage systems.

6.4.3 Water Supply

Urban water supply has always been unsatisfactory and is deteriorating in a majority of developing countries (UNCHS, 1987; Stren, White and Whitney, 1992; Pernia, 1992). The UNCHS (1987) pointed out that in the less developed countries, nearly two thirds of the population do not have reasonable access to a safe and clean water supply, and even a greater proportion lack the means for hygienic waste disposal. Therefore, there is a consensus by all that the provision of a safe water supply is an indispensable requirement for human existence. A clean water system is a priority in any human settlement whether in developed or developing countries.

Various sources and techniques are now used to obtain water for drinking and domestic use. Ground water and surface water are the two major sources of water for human consumption. Ground water can be obtained from hand-dug shallow wells or by using pumps from deep wells. People living in urban areas in Jakarta have access to five types of supply system of ground and surface water. They are: piped water supply which is a clean water system from local government integrated with city system; captive supply by exploiting ground water such as public deep wells, hand pumps and dug wells; individual supply by exploiting ground water such as private deep well, hand pump and a dug well; and supply by water vendors³. The most common source for collection of ground water is through hand pumps.

Although the local councils and public water authority, PAM (*Perusahaan Air Minum*) of Jakarta government, provide piped water, those facilities are not available throughout the whole city, nor in kampung areas. In 1990, only 46 percent of the total

population of Jakarta is using piped water while the rest are using surface and ground water (see Table 4.5).

Even in KIP, there is a problem in providing a water supply from PAM, if the location of the project is not within the area of distribution of piped water. Therefore, the programmes are concerned with providing public ground water, such as public deep wells, hand pumps and dug wells.

Table 6.18 shows that only 26.0 percent of the total respondents in improved kampungs and 28.8 percent of the total respondents in unimproved kampungs have piped water supply by PAM. About 51.6 percent of the total respondents in improved kampungs and 47.5 percent of the total respondents in unimproved kampungs depend on ground water sources (i.e. deep well, hand pump and dug well) for their drinking water. The remaining tenants depend on vendors for water supply.

Table 6.18 Source of Water Supply for Drinking in the Households

SOURCE OF WATER FOR DRINKING	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
Piped water	100	26.0	57	28.8
Private deep well	55	14.3	21	10.6
Public hand pump	7	1.8	0	0
Private hand pump	123	32.1	73	36.9
Public dug well	8	2.1	0	0
Private dug well	5	1.3	0	0
From vendors	86	22.4	47	23.7
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

Table 6.19 Source of Water Supply for Drinking by Location in Kampung Study Areas

SOURCE OF WATER FOR DRINKING	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
Piped water	25	17.8	65	43.9	10	10.4	57	54.8	0	0
Private deep well	20	14.3	1	0.7	34	35.4	0	0	21	22.3
Public hand pump	7	5.0	0	0	0	0	0	0	0	0
Private hand pump	79	56.4	1	0.7	43	44.8	0	0	73	77.7
Public dug well	1	0.7	0	0	7	7.3	0	0	0	0
Private dug well	3	2.1	0	0	2	2.1	0	0	0	0
From vendors	5	3.6	81	54.7	0	0	47	45.2	0	0
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

A further breakdown of the data in Table 6.19 reveals that 43.9 percent of the total respondents in Kelurahan Kali Anyar, an improved kampung and 54.8 percent of the total respondents in Kelurahan Sunter Jaya, an unimproved kampung, are found to install their own piped water for drinking, compared to the rest of respondents in those kelurahans who are dependent on vendors as a source of water (see Plate 6.5).



Plate 6.5

Vendors serve clean water to residents in kampung areas. These vendors are located in Kelurahan Kali Anyar.

It should be noted that all respondents in Kelurahan Ujung Menteng depend on ground water because there is no piped distribution of water from PAM at this location. However, in improved kampungs, even though there is a distribution of piped water from PAM, 56.4 percent of the total respondents in Kelurahan Menteng use hand pumps for their drinking water. About 44.8 percent and 35.4 percent of the total respondents in Kelurahan Pela Mampang used hand pumps and deep wells as the sources of their drinking water. The reason for using ground water is that it is not expensive and can be installed in a short time and it is easier to maintain.

Table 6.20 Source of Water Supply for Bathing and Hygiene in the Households

SOURCE OF WATER FOR BATHING	Improved Kampung		Unimproved Kampung	
	Frequency	Percentage	Frequency	Percentage
Piped water	100	26.0	57	28.8
Private deep well	57	14.9	28	14.1
Public hand pump	7	1.8	0	0
Private hand pump	156	40.6	108	54.6
Public dug well	11	2.9	0	0
Private dug well	5	1.3	0	0
From vendors	48	12.5	5	2.5
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

The source of water for bathing and hygiene used is different than the source of drinking water (Table 6.20). Because of the nature of daily functions, the respondents are not dependent on clean water for their bathing and hygiene. Most of the respondents in both improved kampungs and unimproved kampungs used piped water if they have connections with PAM and ground water if they are not connected. Only 12.5 percent of the total respondents in improved kampungs and 2.5 percent of the total respondents in unimproved kampungs still used vendors for water for bathing and hygiene.

6.4.4 Sewage Disposal Conditions

In investigating the types of toilets used by the residents in the study areas, Table 6.21 shows the existing conditions. The MCK (*Mandi, Cuci and Kakus* = Public Bath, Laundry and Latrine Facilities) is the specific public place used by residents who live in kampung areas. This is the second major component of improvement in the KIP and it is a typical example of community participation in terms of establishing and furnishing the land (see Plate 6.6).



Plate 6.6

The MCK in Kelurahan Kali Anyar which serves for bathing, washing, and human waste disposal.

Table 6.21 The Toilet Systems by Location in Kampung Study Areas

TOILET SYSTEM	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
PERSONAL TOILET	98	70.0	97	65.6	76	79.1	101	77.1	81	86.2
- ventilated WC	84	60.0	97	65.6	68	70.8	61	58.7	47	50.0
- non ventilated WC	14	10.0	0	0	8	8.3	40	38.4	34	36.2
SHARED TOILET / NONE	42	30.0	51	34.5	20	20.8	3	2.9	13	13.8
- share with neighbour	5	3.6	19	12.8	8	8.3	3	2.9	0	0
- MCK	37	26.4	32	21.6	4	4.2	0	0	0	0
- unoccupied land	0	0	0	0	0	0	0	0	1	1.1
- river	0	0	0	0	8	8.3	0	0	12	12.7
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

The survey found that a high majority of more than 70 percent of the total households in both improved kampungs and unimproved kampungs use toilet systems as a place for disposal of human waste. Of the remaining, in improved kampungs more than 20 percent of the total households who have no sanitary toilets use the MCK while 10 percent of the households are sharing with their neighbour or use the river

(especially in Kelurahan Pela Mampang). In unimproved kampungs, 12.7 percent of the total households still use the river as a toilet system.

Although over seventy percent of respondents had sanitary ventilated toilets, there are still 10 percent in Kelurahan Menteng and 8.3 percent in Kelurahan Pela Mampang who do not have ventilated WC (water closet) systems. Compared to unimproved kampungs, more than 36 percent of the total respondents have sanitary toilets which is not ventilated.

In developing countries, the common types of human waste disposal system in use are: a waterborne system, septic tanks, leaching pit and improvised toilets discharging directly to rivers. The choice of technology and choice of system depends on the behaviour of individual households or communities, the level of water supply, residential density, sub-surface water level and extent of the underground sewerage pipe distribution.



Plate 6.7

WC located in Kelurahan Ujung Menteng, where it is far from the home and in the open. It is very unusual that people still use this facility in unimproved kampungs.

In Jakarta city, as well as in other towns and cities in Indonesia, there is no water borne sewerage system. Therefore, the common type of human waste disposal system is through septic tanks. Septic tanks are constructed underground using modern building materials such bricks and cement. The septic tanks are constructed very close to residential houses. However, the use of septic tanks is limited in the urban kampung areas. It is understandable that residents in the kampung who do not have access to a basic water supply suffer the absence of other urban services such as sewerage and drainage systems. Therefore, in urban kampung areas, the residents still used leaching pits and the river as a place for throwing the human waste. Leaching pit systems cause environmental pollution and are more likely to cause health hazards (see Plate 6.7).

Table 6.22 The Sanitation Systems by Location in Kampung Study Areas

SANITATION SYSTEM	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
Septic tank	105	75.0	142	96.0	85	88.6	104	100.0	40	42.6
Leaching pit	0	0	0	0	0	0	0	0	20	21.3
Direct to river	35	25.0	6	4.1	11	11.5	0	0	34	36.2
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

Table 6.22 reveals that the majority of households in improved kampungs areas have to rely on septic tanks for the disposal of human waste. This compares with Kelurahan Ujung Menteng, an unimproved kampung, where only 42.6 percent of the total respondent used a septic tank, 36.2 percent used the river and 21.3 percent of the total respondents still used a leaching pit. Residents in improved kampungs still use the river as a place for disposal of human wastes. It was observed that most who had no septic tanks were residents of houses with no space for the toilet system and where this tradition from rural areas still services.

6.4.5 Solid Waste Disposal

Solid waste disposal has been a continuing problem in Indonesian kampungs. Public waste bins were installed to help solve this problem. However, this has become one of the less successful KIP components. Unfortunately, the public solid waste bins installed under the KIP did not substantially change the solid waste disposal habits of the majority of kampung residents: people continued to bury and burn wastes, and to throw rubbish down the banks of streams and gullies, and onto vacant lots, attracting foraging goats and flies. The increased use of plastic bags for packaging foods and other items augmented the waste disposal problem.

Lack of transportation facilities, physical constraints in collecting refuse from human settlements, and difficulties in finding proper sites for solid waste disposal are the major problems associated with city level solid waste management. The most common type of garbage collection in low income settlements within the kampung is the use of concrete bins, oil drum bins, paper bags, cans, bamboo bins and open land. The people who are more aware of health safety and diseases are found to use any of those systems.

Table 6.23 shows the solid waste facilities used by the respondents in the study areas. Although there are disposal facilities in the improved kampungs, more than 51 percent of the total respondents used plastic bags as waste disposal facilities. It is almost the same with unimproved kampungs. Only 0.7 percent of the total respondents used concrete bins in improved kampungs and 2.1 percent of the total respondents in unimproved kampungs still use open land for waste disposal.

Nevertheless, residents within kampung areas are provided with bins along the roads or paths. However, as the bins are not sufficient in numbers to satisfy the needs and are not cleaned regularly, polluted air from the rotten domestic waste makes life miserable for those who live nearby.

Table 6.23 The Solid Waste Disposal System by Location in Kampung Study Areas

SOLID WASTE SYSTEM	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
Concrete bins	1	0.7	0	0	0	0	17	16.3	0	0
Oil drum bins	5	3.6	3	2.0	4	4.2	4	3.8	4	4.3
Plastics bags	88	62.8	75	50.7	57	59.4	50	48.2	47	50.0
Garbage cans	32	22.9	65	43.9	29	30.2	31	29.8	38	40.4
Wood/bamboo bins	14	10.0	5	3.4	6	6.2	2	1.9	3	3.2
Open land	0	0	0	0	0	0	0	0	2	2.1
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

Comparatively, the systems of collection of solid waste differ between improved kampungs and unimproved kampungs. Table 6.24 shows the detail condition of collecting solid waste from the houses of residents. Although improved kampungs have bins as part of the urban upgrading programme, 6.3 percent of the respondents in Kelurahan Pela Mampang throw solid waste directly into the river. Only about 5 percent of the total respondents are under the responsibility of the local government DKI Jakarta. The remaining respondents are the responsibility of their RT and RW to collect the solid waste from the households. There is evidence of community participation in these neighbourhoods (see Plate 6.8).

Table 6.24 The Collection System of Solid Waste by Location in Kampung Study Areas

SYSTEM OF COLLECTING SOLID WASTE	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
DKI Jakarta	7	5.0	0	0	6	6.3	1	1.0	0	0
RT/RW authority	133	95.0	144	97.3	84	87.4	71	68.2	54	57.5
Throw into open lands	0	0	4	2.7	0	0	23	22.1	37	39.4
Throw into river	0	0	0	0	6	6.3	0	0	1	1.0
Burn and Bury	0	0	0	0	0	0	9	8.7	2	2.1
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

In unimproved kampungs, more than 22 percent of the total respondents still use open land as garbage sites. Only 8.7 percent of the respondents in Kelurahan Sunter Jaya and 2.1 percent in Kelurahan Ujung Menteng burn and bury the solid waste. The

remainder, more than 50 percent of the total respondents, use RT/RW authority to collect their waste (see Plate 6.9).

There is an evidence of mutual-help directed towards cleaning up the garbage. Such help is co-ordinated by the head of kelurahan and RT/RW in both improved kampungs and unimproved kampungs. Consequently, this is an opportunity for improving kampungs with such problems.

6.4.6 Electricity

Electricity is the other component of infrastructure and services available to the city population. The difference between urban and rural settlements is clearly visible with the fall of night. Since the 1980's, the Indonesia government has undertaken an extensive rural electrification programme through financing the installation of additional power to enable the public electric authority, PLN (*Perusahaan Listrik Negara*) to bring additional electricity into the rural areas throughout the country. As a result, the urban kampung areas have also benefited from such programmes through the KIP and other urban projects.

While neither improved and unimproved kampung residents have proper water supplies and sanitation systems, astonishingly, the majority of the residents among the kampung study areas enjoy electricity in their homes. Table 6.25 presents the existing condition of the respondents in the kampung study areas in using electric energy in their homes. More than 99 percent of the total respondents in the kampung study areas are connected to the electricity from PLN. Only one percent of the total respondents in Kelurahan Sunter Jaya (unimproved kampungs) have no connections to the electricity, and only 0.7 percent of the total respondents in Kelurahan Kali Anyar (improved kampung) used other fuels as energy in their homes.



Plate 6.8

Garbage collection by DKI Jakarta and local authority of RT and RW in improved kampungs (Kelurahan Menteng).



Plate 6.9

Garbage system in unimproved kampungs (Sunter Jaya), people still use open land as a location for their solid waste.

Table 6.25 The Energy System by Location in Kampung Study Areas

SOURCE OF ENERGY SYSTEM	IMPROVED KAMPUNGS						UNIMPROVED KAMPUNGS			
	Menteng		Kali Anyar		Pela Mampang		Sunter Jaya		Ujung Menteng	
	No.	%	No.	%	No.	%	No.	%	No.	%
None	0	0	0	0	0	0	1	1.0	0	0
Electricity from PLN	140	100.0	147	99.3	96	100	103	99.0	94	100.0
- Own	116	82.9	141	95.3	79	82.3	89	85.6	85	90.4
- Share with neighbour	24	17.1	6	4.1	17	17.7	14	13.5	9	9.6
Other Fuel	0	0	1	0.7	0	0	0	0	0	0
Total	140	100.0	148	100.0	96	100.0	104	100.0	94	100.0

Source: Field Survey, December 1992.

However, some of them who use electricity from PLN do not own this service by themselves, but share with their neighbours. In improved kampungs, 17.1 percent of the total respondents in Kelurahan Menteng, 4.1 percent in Kelurahan Kali Anyar, and 17.7 percent in Kelurahan Pela Mampang are connected to the service but share it with their neighbours. Compared to unimproved kampungs, 13.5 percent of the total respondents have electricity from PLN in Kelurahan Sunter Jaya and 9.6 percent in Kelurahan Ujung Menteng but share it with their neighbours.

This practice is very common in low income groups because normally their neighbours are their own family or from the same region from which they migrated to Jakarta. Therefore, there is no problem in obtaining electricity in urban kampungs in Jakarta.

6.4.7 Social Services

Provision of a good and sufficient number of social services, such as schools, health services, security services, recreational facilities and others in any community is a matter of major concern for the people living in that community. Similar concern was observed and revealed through interviews with the lurah in the study area during the field work and learned about from secondary data sources from every kelurahan.

6.4.7.1 Schools

There are two types of Indonesian schools: government schools which receive annual grants from the Education Department and private schools who are established and managed by local people as part of the private sector. Consequently, only middle income people can use private schools for their children because the tuition fees are more expensive than in government schools. Normally, the facilities are more complete and better than government schools.

Jakarta, as a capital city, has distributed school facilities to the whole city. Therefore, in general, it is likely that the urban kampungs, as a part of kelurahans would, have primary schools as the lowest standard of education in the area. Table 6.26 shows the school facilities in the districts as a part of kampung study area.

Table 6.26 School Facilities by District and Location in Kampung Study Area

EDUCATION FACILITY	DISTRICT OF IMPROVED KAMPUNGS			DISTRICT OF UNIMPROVED KAMPUNGS	
	Menteng	Kali Anyar	Pela Mampang	Sunter Jaya	Ujung Menteng
TK (Play Group)	29	32	25	70	83
SD (Primary)	57	85	40	119	136
SMP (First High)	28	27	10	51	48
SMA (High School)	23	19	8	36	38
University/College	6	2	1	5	9

Source: Statistics Office DKI Jakarta, 1990, Table 25.

During the field work it was found that the majority of the residents in kampung study areas had access to primary and secondary schools. All of the households living in both improved and unimproved kampungs have easy access to the location of the schools.

It is interesting to find that, like other areas of Indonesia, more than 90 percent of total population are Muslim. Every kampung area also has '*Madrashas*' (religious school) where children can get religious education along with teachings on the Arabic language and Islamic literature.

6.4.7.2 Health Services

The promotion of health and the improvement of the quality of nutrition is basic to improvement of human resources and should be pursued by developing a national health system. Therefore, improvement of health should be carried out with the active participation of the society and be primarily aimed at the lower income groups in the villages as well as in the cities.

Public Health Centres, puskesmas (*pusat kesehatan masyarakat*) are the facility that provide basic health care for villages. In Jakarta, since the KIP and other urban projects begin, the health services have been distributed in every village, with at least one puskesmas in each. Therefore, both improved and unimproved kampungs have access to a puskesmas. Where they exist, residents have a better service.

The family planning programme in Indonesia is now entering its twenty third year of operation. The programme is a direct effort, aimed at reducing the rate of childbirth. The success of the family planning programme will contribute to the success of efforts to realise the increasing prosperity of the Indonesian nation. Therefore, the typical large families of the past, no more exist. The typical size of Indonesian families in general is father, mother and two children.

Table 6.27 Number of Children in the Household

NUMBER OF CHILDREN	Improved Kampung		Unimproved Kampung	
	Frequency	Percentage	Frequency	Percentage
Zero	2	1.0	15	3.9
One	16	8.1	54	14.1
Two	56	28.3	87	22.7
Three	41	20.7	74	19.3
Four	36	18.2	56	14.6
Five	18	9.1	47	12.2
Six and above	29	14.6	51	13.3
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

However, this programme has yet to be improved in the kampung study areas. As shown in Table 6.27, 40 percent of the total respondents in improved kampungs had zero to two children, about 60 percent had more than four children. In unimproved kampungs, about 37 percent of the total respondents had zero to two children and more than 63 percent had more than four children. Improved kampungs have enjoyed improved and healthy living conditions since obtaining the health services, compared to unimproved kampungs.

6.4.7.3 Security Services

In terms of security from fire hazards, the residents in the kampung areas are most exposed to such disasters. No fire service station is available within kampung areas. Only within the municipality/region is there a fire service station. Therefore, in Jakarta, facilities for fire service stations are limited to every five regions.

Although, there is fire service station located in the kampung areas, like in Kelurahan Menteng, it is difficult for authorities to offer the service. This is because of the lack of a proper road network, rapid access of fire fighting vehicles into the kampung area and limited of water supplies. In case of a fire, hundreds of residential houses can be destroyed before they arrive.

With respect to security of people, some neighbourhoods have relatively wealthy residents and community leaders of RT and RW have arranged community watch groups (SISKAMLING = *Sistim Keamanan Lingkungan*) who provide night patrols in the area. This is happening in both improved and unimproved kampungs, where such service functions are based on the voluntary contributions from local residents and get no financial help from any public authorities. Through mutual help, a post for SISKAMLING has been constructed at both improved and unimproved kampungs.

6.4.7.4 Local Markets

The Indonesian people prefer to do their shopping for food on a daily basis rather than weekly or monthly. They prefer to get fresh spices, vegetables and meats in contrast to frozen food.

There are three types of services available to the household buyers: the street-cart, that is a wheel-barrow to carry fresh foods which offers a door to door service (see plate 6.10); the village or local markets, and the supermarkets in the city of Jakarta.

It is understandable that local markets would be available in kampung areas. However, local markets have been constructed through the participation of the people who live in Kelurahan Kali Anyar, an improved kampung. It is useful and economic for residents to use the local petty traders that sell their commodities sitting along the roads. The remaining study areas have no local markets.



Plate 6.10

Street-Cart for serving food, vegetables, and meat. The housewife uses this service for daily shopping. This location in the improved kampung of Kali Anyar.

The majority of the households in kampung study area do their daily shopping from the street-cart. Some residents use their homes as a shop for their neighbours. Because of this service, the household buyers do not necessarily have to spend money on transportation. However, the quality of the food offered by this informal sector is not as good as that from the supermarket, but it is cheaper and more convenient for the housewife.

6.4.7.5 Recreational Facilities

Most of the kampung study areas do not have the privilege of enjoying recreational facilities provided by the public sector. No municipal parks or play grounds are available in the area. Children and youth are found to play on vacant residential lots or in roads and footpaths (see Plate 6.11). Lack of well planned and developed open space reflects the scarcity of land for social use in the urban kampung.

During the field work in both improved and unimproved kampungs, respondents expressed their satisfaction with the social facilities found. The majority of respondents (83.6 percent) living in improved kampungs have seen no change in recreational facilities from 1970 to 1990. Also, the majority of respondents (88.4 percent) living in unimproved kampungs have expressed the same observation.

6.5 Attitudinal Responses

Respondents behavioural pattern and attitudes, satisfaction towards availability of urban services, community participation in willingness to pay services and to give a land for improving and building public services are examined in this sub-chapter. In addition, their attitude in relation to urban environment will also be analysed.

In the questionnaire, respondents were asked to identify a grade in the response scale which follows a descending order (i.e. very big improvement, a little improvement, no change, and slightly deteriorated). A specific question was asked in

terms of their perception and opinion of the urban environment in both improved and unimproved kampungs. The respondents in improved kampungs were asked to clarify their involvement in the KIP's result, and it was learned that most of them had been involved. Most respondents in unimproved kampungs, would really like to participate, or so they said when they were asked in response about implementation of a KIP in their area.

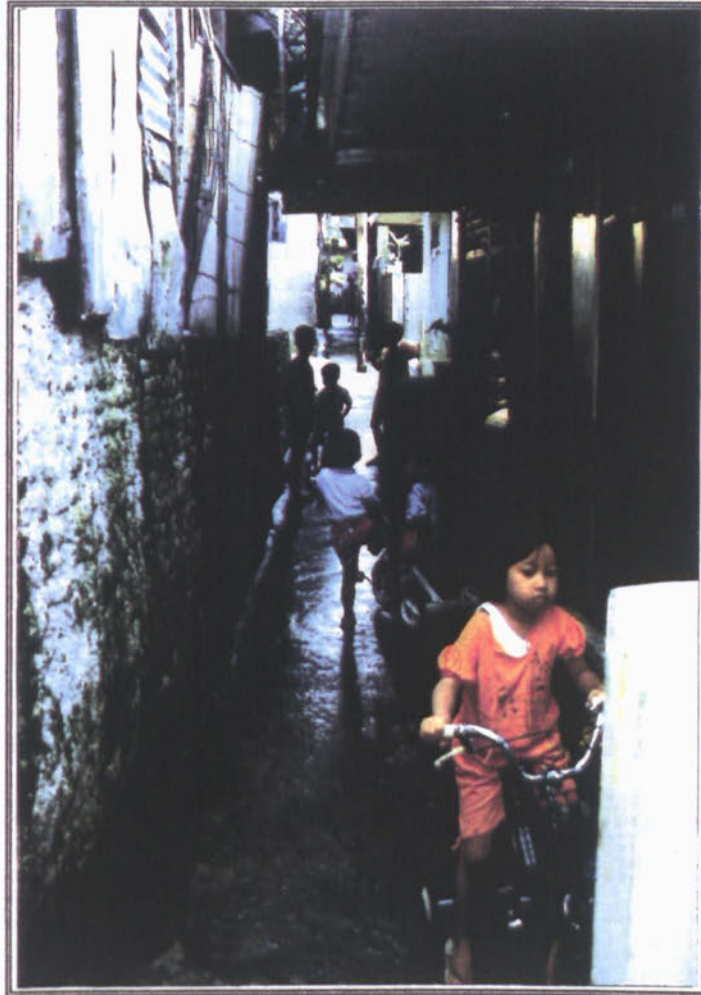


Plate 6.11

There are no facilities for playgrounds in kampung areas.
Children use paths as a place for playing.

6.5.1 Community Participation Involvement

Community participation means readiness of both the government and the community to accept certain responsibilities and activities. It also means that the value of each group's contribution is seen, appreciated and used. In this survey, 95 percent of the total respondents in the improved kampungs were involved in the development process of the KIP. In the unimproved kampungs, the objective was to find out whether the residents would be involved in the development process if the KIP was introduced. 98 percent of the total respondents indicated that they would participate.

Table 6.28 shows that most of the respondents in both improved and unimproved kampungs had the same interest in community participation in relation to KIP. About 74 percent of the total respondents in the improved kampungs had been involved in maintenance work. 81 percent of respondents in the unimproved kampungs indicated they would be involved in maintenance work. Only 17.4 percent of the total respondent in the improved kampungs had been involved in construction work. 12.1 percent of the respondents in the unimproved kampungs would be willing to participate in construction work. The responses provided reflected the types of skills of respondents as shown in Table 6.3.

Table 6.28 Activities of Respondents Concerning Involvement in the KIP

ACTIVITIES	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
Planning Process	3	0.8	5	2.5
Implementation	12	3.2	5	2.5
Construction	67	17.4	24	12.2
Maintenance	283	73.7	161	81.3
Non active	19	4.9	3	1.5
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

Although the majority of the inhabitants in the kampung study areas were identified as low income people, some of them were found to have motivation and aspirations for better living in kampungs. The respondents were asked in terms of their cooperation and support for the implementation of KIP. Table 6.29 indicates the extent to which the respondents have cooperated and supported the KIP. The most widely provided support in improved kampungs had been concerned with financial aspects and changes to their house or plot, whilst most of the respondents in unimproved kampungs were still concerned about it. This response suggests there are good prospects for constructing and improving the infrastructure and services in their areas. This again confirms that there is significant community participation in the kampungs studied.

Table 6.29 Support Respondents had/would give to the KIP

ACTIVITIES	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
Financial	169	44.0	94	47.5
Land for services	6	1.6	22	11.1
Willing to restructure house and/or plot	186	48.4	76	38.4
Would contribute labour to improvements	23	6.0	6	3.0
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

6.5.2 Satisfaction Toward Urban Environment

This study found that in consideration to the basic urban environment such as water supply, sanitation, transportation and others social services, the majority of the respondents in the kampungs studied considered the services to be reasonable. Almost all of the respondents had attention directed to improvements in the environmental conditions and the way people perceived and participated in community affairs. When the respondents were asked "do you think that the KIP has contributed to solutions of

the urban environment?", the majority in both improved and unimproved kampungs, 74 percent and 62 percent respectively stated that KIP made a very big contribution. Table 6.30 gives these results.

Table 6.30 Do you think the KIP has contributed to the Urban Environment?

PERCEPTION	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
Very big contribution	283	73.7	122	61.6
A little contribution	92	24.0	70	35.4
Very little contribution	9	2.3	5	2.5
No contribution	0	0	1	0.5
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

Furthermore, when the heads of households were asked to express their perception about the success of KIP implemented by the DKI Jakarta, the majority (82 percent) of the respondents in the kampungs studied thought it was successful, as shown in Table 6.31. Therefore, they were willing to cooperate with the local authority in maintaining and monitoring the results of the KIP.

Table 6.31 What do you think about the success of the KIP in Jakarta?

SATISFACTION	Improved Kampungs		Unimproved Kampungs	
	Frequency	Percentage	Frequency	Percentage
Very successful	4	1.0	0	0
Successful	314	81.8	163	82.3
Seldom successful	63	16.4	35	17.7
Unsuccessful	3	0.8	0	0
Total	384	100.0	198	100.0

Source: Field Survey, December 1992.

In summing up, there was no difference in attitudinal responses between the improved and unimproved kampungs studied. A good social relationship does exist among the neighbourhoods in most of the kampungs studied.

6.6 Characteristics of Leadership

This section presents results from the survey of leadership. The analysis of leadership in the kampungs studied investigated the activities, experiences, satisfaction towards KIP and participation in the neighbourhoods. About 90 local leaders in improved kampungs and 52 local leaders in unimproved kampungs were interviewed in December 1992. To limit the scope of analysis, only leaders of RTs and RWs were selected for interviews, and all selected leaders were representative members of LKMD (Organisation for Community Security).

This study found that the leadership of the RW and RT heads, who had been in residence in the kampungs studied for at least 15 years, can be relied upon to mobilise the local population as prominent senior leaders. In addition, all leaders in the kampungs studied, also in urban and rural areas of Indonesia were involved as voluntary members. It must be stressed that most of these voluntary community organisations were effective and significant.

6.6.1 Activities of LKMD

As mentioned in section 4.5.1.2 - Chapter Four, at the level of the kampung community, the LKMD or organisational structure of the village self-reliance council is concerned with social welfare activities and activities for youth, increasing incomes through cooperatives, and skill-upgrading projects such as courses on welding, typing, making furniture and printing. These LKMD are very useful, because at present the social security benefits provided by government are very small, distributed on an ad hoc basis, and without the guidance of a national social insurance or social security system.

This study found that when the leaders were asked "do you think the LKMD has affected your neighbours?", 82.2 percent of the total leaders in improved kampungs

and 86.5 percent in unimproved kampungs answered "yes". The reason that the rest of the leaders answered "no" was concern that there were neighbours who had still not yet participated in LKMD and some of the people did not know the goals of LKMD.

The impression from the responses of those interviewed was that many of the activities of LKMD were fundamental. People know that many types of programmes are available to them. Also, the LKMD has accelerated efforts to improve the quality of community facilities by stimulating self-help (see Plate 6.12).



Plate 6.12

Cleaning the environment by mutual-help on the weekend.

However, the leaders were also asked "what is the main reason that progress has stalled?". Inadequate financial support was the first reason (90 percent) given by leaders in unimproved kampungs. In improved kampungs, there was a variety of reason, such as inadequate financial, inadequate self-reliance and poor participation (63.3 percent, 17.8 percent and 10 percent respectively).

In general, social programmes initiated by government through LKMD have reached the lowest socio-economic groups in the kampungs studied. There was no differentiation between improved kampungs and unimproved kampungs in terms of activities of LKMD which have experienced good participation.

6.6.2 Community Participation Experience

Mutual-help (*gotong royong*) efforts have been made through Indonesia society to improve their environment and neighbourhoods. This is an aspect of community participation experience. Initially, the work started in religious activities, such as to built a mosque or church, and moved on to built housing and infrastructure facilities with neighbours, and finally to maintaining their environment through work on sanitation services.

From the government's point of view, participatory services may be of benefit in the following ways (Yeung and McGee, 1986). First, increased participation on the part of the people can reduce the overall cost of social transfers. Second, people based programmes can provide government with a great deal of information on the social and economic needs of the population. Third, participatory service organisations may help governments identify potential leaders who can assist in the development process, or at least disseminate information on government goals.

As mentioned earlier, most people in the kampungs studied appeared to be involved in the various activities. When the leaders were asked "was there community participation in development programmes?", most of the leaders stated that the people in their neighbours were active (71.1 percent in improved kampungs and 59.6 percent in unimproved kampungs). Table 6.32 shows the condition of community participation in the view of the leaders.

During the field work in the kampung study areas, the existence of local community participation was found. Plate 6.13 presents an example of community

participation experience in developing a little mosque. The first priority of respondents on social services was to build a mosque and then to work together in improving the road and path conditions.



Plate 6.13

This is an example of community participation in a development programme. The road is still in poor condition but the first priority was to build a mosque.

Other questions on community experience revealed that recently there had been good relations among the neighbours in both the improved and unimproved kampungs study. Almost 80 percent of the total leaders answered that "there were very tight relations among neighbours".

Table 6.32 Was There Community Participation in Development Programmes?

PERCEPTION	Improved Kampung		Unimproved Kampung	
	Frequency	Percentage	Frequency	Percentage
Strongly influenced	18	20.0	12	23.1
Active	64	71.1	31	59.6
A little influenced	8	8.9	9	17.3
Total	90	100.0	52	100.0

Source: Field Survey, December 1992.

It may be pointed out, according to the point of view of the leaders, that most of the neighbours in the kampungs studied actively took part in activities designed to improve their social and economic conditions. Even though the neighbourhood was made up of low-income groups, this did not create difficulties for them in terms of becoming involved in any service activities. In addition, community participation in urban service delivery may offer the possibility of employment of low-income groups. Even very small income subsidisation by the government can create many income earning opportunities for low-income urban communities.

6.7 Summary

The aim of this chapter has been to analyse the socio-economic and physical characteristics of the kampung study areas and to compare the existing conditions in both improved kampungs and unimproved kampungs.

This chapter provides evidence that the respondents in the kampung study areas are from low income groups. From the field data on occupation, it can be concluded that the urban kampungs of Jakarta are inhabited by heterogeneous occupational groups who find employment in various sectors of the city's economy and also in the kampung area itself, especially in the informal sector.

Educationally, residents of unimproved kampungs had very minimal formal primary education, compared to improved kampungs which had experienced an increasing level of education to secondary level.

Because of the availability of using government land for housing in the urban kampung, the percentage of house ownership among the low income and middle class population is much more higher in the unimproved kampungs than in improved kampungs. The land in the improved kampung areas is predominantly government owned land, which is procured and developed mostly as a result of the KIP.

In general, improved kampungs within the study area have access to piped water, septic tanks, MCK for bathing and disposing human waste and garbage disposal facilities operated and managed by the local authority and the neighbourhood. However, none of these facilities are available to the unimproved kampungs. Therefore, in considering the water supply, human waste disposal and garbage disposal system, it can be claimed that the conditions of low income group in unimproved kampungs is worse than in the improved kampungs.

With the establishment of KIP in kampung areas, the socio-economic and physical characteristics have changed from poor to better living conditions. The improvement of housing, roads and basic infrastructure and services in the improved kampungs has led to better life and reflects better than the typical picture of slums and squatter settlements in other developing country. Therefore, integrated development and upgrading of infrastructure and services are very important in achieving social-economic and physical development of the inhabitants in any settlement.

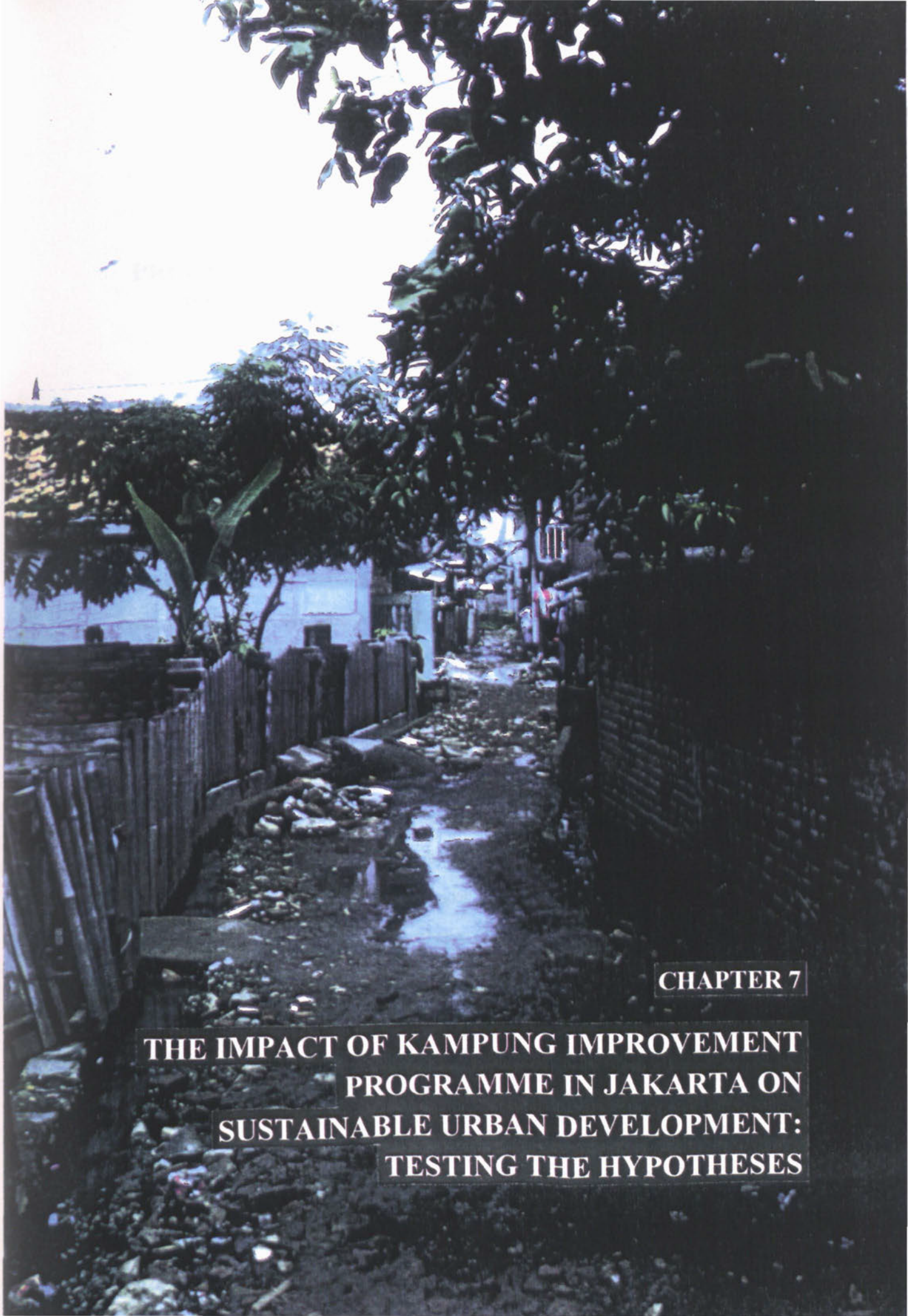
There were no differentiation between improved and unimproved kampungs in terms of attitudinal responses. Almost all respondents in the kampung study areas have a good social relationship with their neighbours. The respondents in the kampungs studied were found to be willing to cooperate to pay for services and to alter the firm of their house or plot to allow the installation of infrastructure, in the process of implementing the KIP and others urban projects.

The leadership in both improved and unimproved kampungs actively took part in activities of LKMD and KIP. Most of the leaders were satisfied with the condition of infrastructure and services in their kampung areas. In general, it was considered that there were good contributions to the urban environment through mutual-help in cleaning the roads and sanitation and also building public services.

Generally this chapter has given a clear picture of the socio-economic and physical characteristics and background of the improved kampungs and unimproved kampungs which are very relevant for the analysis in the next chapter.

END NOTES

- ¹ Roads are normally used for motor vehicles. The width of the roads in residential areas are between 2 to 4 metres.
- ² Footpaths are used for walkways with a minimum width of one metre. They are normally located between houses in low income residential areas.
- ³ In many urban kampungs in Jakarta and even some others big cities, for the less fortunate who do not have piped water service to their homes, the vendors are popular in supplying water for drinking. However, the quality of water supplied by the vendors is not always assured. This depends on the source of water supply. Individual water vendors are found to supply water for their kampungs. Normally the household with a connection to the water supply from PAM sells their water to the vendors or become a seller themselves. Private companies are found to supply for middle income and high income groups who live in kampung areas and other locations using water trucks.



CHAPTER 7

**THE IMPACT OF KAMPUNG IMPROVEMENT
PROGRAMME IN JAKARTA ON
SUSTAINABLE URBAN DEVELOPMENT:
TESTING THE HYPOTHESES**

CHAPTER SEVEN

THE IMPACT OF KAMPUNG IMPROVEMENT PROGRAMME IN JAKARTA ON SUSTAINABLE URBAN DEVELOPMENT: TESTING THE HYPOTHESES

7.1 Introduction

An earlier chapter of this thesis developed and derived variables with which to test the research hypotheses. Views of the social, economic and physical characteristics of the kampung study areas highlighted the importance of improving living conditions to produce better standards of living for the dwellers. A study of these variables has demonstrated that they reflect the improved standards in improved kampungs compared to the unimproved kampungs, as a result of the Kampung Improvement Programme and the participation of the dwellers.

This chapter can now test the research hypotheses to establish the significance of the KIP, and its relationships with sustainable urban development, as a means of improving quality of life. The three major areas of hypotheses of the research from Chapter One are socio-economic, physical and environmental, and institutional and community. Therefore, all main hypotheses (six) and sub-hypotheses (thirteen) will be tested in this chapter.

The following analysis is based on the household survey, the leadership survey and official interviews from the Lurahs and staff of BAPPEM P-MHT as collected in the field work and field observation. For the purpose of analysis, a comparative study between improved and unimproved kampungs, using frequency tables, cross-tabulations and the chi-square statistics, have been used in this chapter. The SPSS/PC + computer package was used throughout for this statistical analysis.

Cross-tabulation analyses are used to display data in readable tables so that the association between two variables can be readily detected (de Vaus, 1986). Cross-tabulations were used in this analysis to investigate the physical, social, economic and environmental characteristics in the kampung study areas. The basic principle in presenting cross-tabulations is to provide only the information necessary for accurate interpretation and to avoid cluttered tables. Therefore, for variables with relatively few categories, cross-tabulations provide a good way of displaying such relationships.

The chi-square tests are used to establish the significance of the relationship between two independent variables expressed in frequencies in a contingency table. Chi-square values are generally more meaningful in a larger sample. A smaller sample of under 30 cases might produce rather dubious results (Norusis, 1986). Small samples provide little information about the strength or form of the association between two variables. Chi-square requires the sample size to be relatively large and it is recommended that no more than 20 percent of the expected values in the cell frequencies should be less than five (Blalock, 1960:278), although care needs to be applied as the size of the sample affects the level of significance.

SECTION ONE

SOCIO-ECONOMIC HYPOTHESES

This first section presents the test of socio-economic hypotheses relating to Kampung study areas. The aims of this section are to provide evidence for the hypothesis that **"the Kampung are inhabited by low income people"** (two sub-hypotheses). It also attempts to provide evidence for the hypothesis that **"the people in Kampung have migrated from outside the region to Jakarta"** (two sub-hypotheses).

Sustainable urban development must increase rather than reduce the socio-economic integration of the city with the surrounding areas (Tolba, 1987; Elkin,

McLarren and Hillman, 1991). With an overall improvement in the conditions of living and in household income levels, a large majority of the settlers in the city were generally satisfied and intended to secure a better quality of life.

Kampung improvement is the main programme directed towards the low income groups. The long term programme consists of a major national effort to make up for the main deficiencies in the living conditions of the urban kampungs (see Chapter Three).

The analysis in this section is mostly based on the frequency distribution and cross-tabulations from the household survey. Chi-square statistics are used to estimate the significance of the relationship between two independent variables relating to socio-economic characteristics of the households which have been analysed in Chapter Six.

7.2 Quality of Life in the Kampungs

This and the following sections set out to test the first main socio-economic hypothesis that "The kampungs are inhabited by low income people". The hypothesis which consists of two sub-hypotheses will be tested in the following sub-sections.

The definition of the 'low income people' for this study should be clarified at this stage. As mentioned in Chapter Six, the low income people in this study are identified by the Ministry of Housing (1990) and Central Bureau of Statistics as the lowest 40 percent of income earners as observed in the area, a standard used by the World Bank in Indonesia.

It is difficult to determine and to justify whether changes of present income of the settlers has really occurred. The price indices are fluctuating over time. For this reason, this study uses the poverty line to determine the status of the respondents related to their present income.

From the literature, the common method used to determine the relative and absolute poverty standards is the summary statistics method where one can define a

poverty standard as existing at a given level within a distribution of income (Wong, 1982). Atkinson (1975) defined the poverty line as half of the average income, while Fuchs (1967) has suggested that it should be one half of the median income. Townsend (1979) however argues that the mean is a more appropriate measure than the median.

The concept of poverty line is not uniform among different countries and it changes depending on the level of income or the stage of economic and social development of a country (World Bank, 1990). The standard concept of poverty line is the minimum level of consumption or the corresponding level of expenditure or income, which makes it possible for ordinary people to survive.

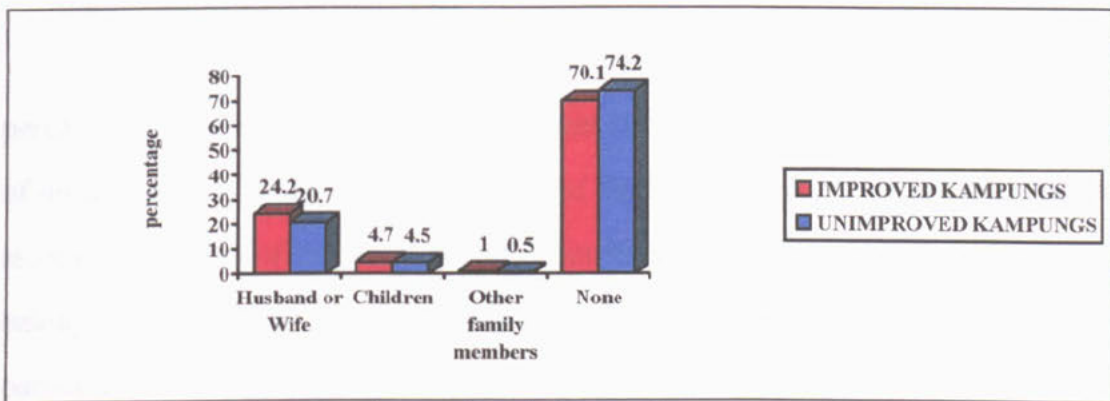
In the developing countries where often income distribution data is limited, it may be convenient to use per capita income as a summary statistic. In the Indonesian case, Sjahrir (1992) set a poverty line by the minimum level of consumption, and Soegijoko (1985) defined poverty in terms of household and per capita incomes adequate to purchase 480 kg of rice per person per year.

7.2.1 Monthly Income and Expenditure

In this sub-section, the first sub-hypothesis that **"the majority of the people in kampungs are low income earners"** will be tested. The analysis of household incomes (see section 6.2.4 in Chapter Six) showed that there existed income differences between the heads of households in both improved and unimproved kampungs. It was apparent that in the improved kampungs some of the residents in the lowest income groups had shifted upwards to the low income groups between 1984 and the time of the survey in 1992. On the other hand, in the unimproved kampungs most of the residents were still in the lowest income groups. Considering the income level in both kampung study areas, however, most of the residents were still in the low income groups.

Before meaningful monthly income figures can be derived, all household income must be accounted for, including both primary job earnings, and any supplementary earnings by members of the family. Figure 7.1 shows the source of supplementary income in both improved and unimproved kampungs. About 24.2 percent of household income came from the husband or wife and 5.7 percent came from the children and other family members in improved kampungs, compared to 20.7 percent from the husband or wife and 5.0 percent from the children and other family members in unimproved kampungs. This indicates that almost all income was from the heads of households.

Figure 7.1 Source of Supplementary Income in Kampung Study Areas



Note : The total number of respondents in improved kampungs are 384 and in unimproved kampungs are 198.

Source: Field Survey, December 1992.

Like monthly income, household expenditure has also been compiled in various groupings according to the income and expenditure brackets identified by Ministry of Housing and Central Bureau Statistics. At a later stage, data for this variable has been regrouped into three major groups: lowest (less than Rp. 100,000); low (Rp. 100,000 - 200,000); and middle groups (more than Rp. 200,000).

Table 7.1 presents the income and expenditure of the kampungs studied using the census income figure mentioned in Chapter Six. This study has found that the majority of settlers in the kampung study areas were low income earners. It shows that more than 47 percent of the respondents in improved kampungs and 46 percent of the respondents in unimproved kampungs had income and expenditure of low income

earners (Rp. 100,000 - 200,000 per month). It may therefore be claimed that the kampungs studied in Jakarta are inhabited by predominantly low income people.

Table 7.1 Present Monthly Household Income and Expenditure in Kampung Study Areas

INCOME RANGE	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS			
	Income		Expenditure		Income		Expenditure	
	No.	%	No.	%	No.	%	No.	%
Lowest Income Groups (less than Rp. 100,000)	61	15.9	64	16.7	49	24.7	52	26.3
Low Income Groups (Rp. 100,000 - 200,000)	190	49.5	183	47.7	108	54.5	91	46.0
Middle Income Groups (more than Rp. 200,000)	133	34.6	137	35.7	41	20.7	55	27.8
Total	384	100.0	384	100.0	198	100.0	198	100.0

Note: Present mean household income for improved kampungs = Rp. 171,810 and for unimproved kampungs = Rp. 146,717, whereas mean household expenditure for improved kampungs = Rp. 169,875 and for unimproved kampungs = Rp. 142,415.

Source: Field Survey, December 1992.

However, the low income population in this study is identified as the lowest 40 percent of the different income groups present in the kampung study areas. This level of 40 percent was based on the definition of the World Bank. It stated that the low income population of the Third World countries should be considered as those who belong to the lowest 40 percent of the different earning groups defined in that particular country (McNamara, 1973).

Table 7.2 Population under Poverty Line in Indonesia

YEAR	POPULATION POVERTY					
	Percentage			Number		
	Urban	Rural	Total	Urban	Rural	Total
1976	38.9	40.4	40.1	9,991	44,240	54,321
1978	30.8	33.9	33.3	8,285	38,876	47,161
1980	29.2	28.4	28.6	9,510	32,794	42,304
1981	27.9	26.5	26.8	9,288	31,277	40,565
1984	23.0	21.2	21.7	9,291	25,691	34,982
1987	20.1	16.4	17.4	9,710	20,287	29,997
1990	16.8	14.3	15.1	9,428	17,763	27,191

Source: Sjahrir, 1992, p. 26, Table 9.

Indonesia took less than a generation to reduce the incidence of poverty from almost 60 percent of the population (71,524,000 people) in the early 1970s to less than 15 percent (27,191,000 people) in 1990 (Central Bureau Statistics, 1991). Table 7.2 shows the population under the poverty line in Indonesia between 1976 and 1990,

based on a research study from Sjahrir (1992:26). Even though the total percentage of the poor decreased in Indonesia, in urban areas increases in the number of population in poverty were recorded for some years (i.e. 1980, 1984 and 1987).

Today, in the countries that have participated in the overall economic progress that has taken place since the 1960s, poverty has declined and the incomes, even of those remaining in poverty, have increased (Ichimura, 1988; Sjahrir, 1992). According to Census Bureau Statistics (1992), GNP per capita in 1984 was US \$ 540 or Rp. 580,500 (\$1 = Rp. 1,075) and in 1992 was US \$ 600 or Rp. 1,170,000 (\$1 = Rp. 1,950) and it was Rp. 97,500 per month. However, this increasing level of GNP has not taken into account the change in the real value of the dollar and rupiah over that decade and the change of inflation in Indonesia.

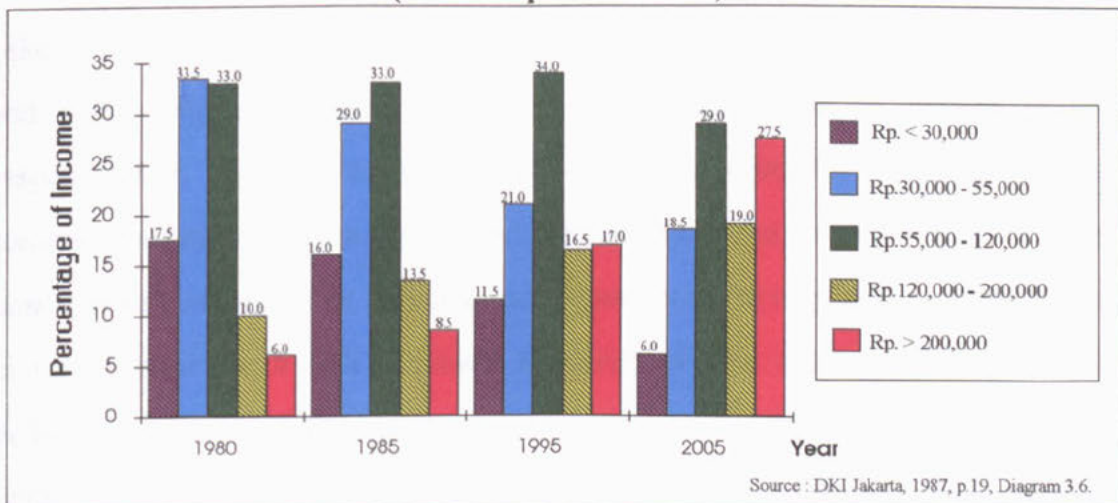
In real terms, the improvement of income status does not necessarily represent a real increase in income because of the increase in prices of goods and inflation. For instance, in 1984 a kilogram of rice cost Rp. 285 (US \$ 0.25), whereas in 1990 it cost Rp. 505 (US \$ 0.26) per kilogram (Centre Statistics Office Jakarta, 1991:436). Taking into account the devaluation of rupiah to dollar that took place in December 1985, therefore, the price of rice increased approximately two times in rupiah (but did not increase so much in dollars) over a six year period. The proportional change in income was less than the proportional change in the prices of goods. Therefore, in real terms there is no significant increase and improvement in the level of income status.

The proportion below the poverty line in Jakarta was 16.9 percent in 1980 (Soegijoko, 1985) and decreased to 9.6 percent in 1990 (Statistics Office Jakarta, 1990) which was lower than the proportion below that line in the nation as a whole. If one assumes that income within the kampungs of both types equalled the mean personal income with Jakarta in 1990, an assumption which is unfortunately tenuous at best, given the income levels discovered in the 1992 field survey, it is difficult not to conclude that the proportion of kampung residents below the poverty line has decreased even further between 1990 and 1992. This does not suggest at all that they

are upper income members of society, given the other characteristics of the group which have been revealed by the study. Rather, they are low-income, but with at least sufficient income to insure their day to day survival.

Based on the result of the Structural Plan of Jakarta 2005 (DKI Jakarta, 1987:19), it has been observed that over the years there has been a shift in the pattern of household incomes, as shown in Figure 7.2. If there is successful development in all sectors, then this shift is likely to continue. This figure shows that by 2005, at constant prices of 1980, the proportion of the population in income groups of less than Rp. 200,000 per month is forecast to decrease from 94 percent (1980) to 72.5 percent (2005), whereas the proportion of those earning more than Rp. 200,000 is forecast to increase from 6 percent in 1980 to 27.5 percent in 2005. However, if the kampung study areas are compared with other areas in Jakarta then the households in the former still have a predominance of lower income groups. The detailed analysis of the kampung areas in this study also confirms this situation. In the survey carried out, no member of the highest income and expenditure groups was found in the kampung study areas. Hence, the above analysis confirms the sub-hypothesis that the majority of people in kampung areas are low income earners.

Figure 7.2 Projection of Household Income by Income Group in Percent (constant prices of 1980)



7.2.2 Occupation and Level of Education

According to a poverty profile based on SUSENAS 1990, the poor in Indonesia have larger households and more members in the labour force. The heads of poor households have less education, as do their household members. Members of households change jobs frequently, and those already working are more likely to accept additional jobs. The poor are more likely to be looking for work. Therefore, this subsection will test the second sub-hypothesis that **"the majority of the people in kampungs are employed in the informal sector and educated to a low level of education"**. This analysis attempts to provide a more detailed analysis than the previous analysis presented in Chapter Six.

This general low level of education among heads of households in Jakarta means that they do not possess many of the skills that can be used in the formal job market. These factors, together with lack of education and skills, mean that many kampung residents are employed in sectors of the economy that can be termed marginal. Also, in Jakarta where much of the population is made up of migrants, people choose occupations in the informal sector which are often associated with their ethnic group (Karamoy and Dias, 1986).

This analysis is necessary to demonstrate the relationship between household incomes with the type of occupation on the one hand and the level of education on the other in both improved and unimproved kampungs. As mentioned in sections 6.2.1 and 6.2.2, frequency analysis has shown that a majority of 61 percent of the respondents in improved kampungs have completed education to secondary and tertiary education level (first and second high school or *Sekolah Menengah Pertama dan Atas* and universities or colleges) and 57 percent of the respondents are employed in the informal sector (self employed including vendors, small businessmen, small builders and home industries). On the other hand, 52 percent of the respondents in unimproved kampungs have an education level up to only primary level (primary

school or *Sekolah Dasar*) and 63 percent of the respondents are employed in the informal sector.

For cross-tabulations analysis, in terms of occupation, the variables from Table 6.3 have been regrouped into three types; "formal sector", "informal sector" and "unemployment and retired". For household income, variables from Table 6.7, have been collapsed into three levels; "lowest income" (less than Rp. 100,000), "low income" (Rp. 100,000 - 200,000) and "middle income" (more than Rp. 200,000).

Table 7.3 shows that there are marked differences in the level of income of residents in both improved and unimproved kampungs. In the informal sector, the study revealed that 46 percent and 39 percent of the respondents in the improved kampungs belonged to the low and middle income groups, whereas in the unimproved kampungs 32 percent and 49 percent of the respondents belonged to the lowest and low income groups. This finding suggests that the improved kampungs have more higher income earners in the informal sector than the unimproved kampungs.

Table 7.3 Cross-tabulation of Household Occupation and Household Income Groups

TYPE OF OCCUPATION	HOUSEHOLD INCOME GROUPS						
	IMPROVED KAMPUNGS			N	UNIMPROVED KAMPUNGS		
	Lowest	Low	Middle		Lowest	Low	Middle
Formal Sector	12	71	46	N	6	29	17
	9.3	55.0	35.7	R	11.5	55.8	32.7
	19.7	37.4	34.6	C	12.2	26.9	41.5
Informal Sector	32	100	85	N	40	61	23
	14.7	46.1	39.2	R	32.3	49.2	18.5
	52.5	52.6	63.9	C	81.6	56.5	56.1
Unemployment and Retired	17	19	2	N	3	18	1
	44.7	50.0	5.3	R	13.6	81.0	4.5
	27.9	10.0	1.5	C	6.1	16.7	2.4
Number of cases			384				198

Note: 'N' = represents number of cases

'R' = represents percentage by Row and 'C' = represents percentage by Column.

The level of education for heads of households, variables from Table 6.2, have been regrouped into two levels; "no schooling and primary education" and "secondary and tertiary education", and have been used for cross-tabulations as is shown in Table 7.4. This indicates that the majority of low income groups in the improved kampungs

were better educated than in the unimproved kampungs. In the improved kampungs, 60.5 percent of respondents were educated up to secondary and tertiary levels compared to the unimproved kampungs where such attainment was only 38.9 percent. This result suggests that residents in improved kampungs have benefited from the National Educational Programme implemented since Repelita II which has frequently been directly linked with the KIP. The National Educational Programme calls for the establishment of at least one primary school in every kelurahan. In general, most of the schools (i.e. primary, secondary and tertiary institutions) are established within the improved kampungs located in the kelurahan.

Table 7.4 Cross-tabulation of Level of Education and Household Income Groups

LEVEL OF EDUCATION	HOUSEHOLD INCOME GROUPS						
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS		
	Lowest	Low	Middle		Lowest	Low	Middle
No Schooling and Primary education	39	75	36	N	30	66	13
	26.0	50.0	24.0	R	27.5	60.6	11.9
	63.9	39.5	27.1	C	61.2	61.1	31.7
Secondary and Tertiary education	22	115	97	N	19	42	28
	9.4	49.1	41.5	R	21.3	47.2	31.5
	36.1	60.5	72.9	C	38.8	38.9	68.3
Number of cases	384				198		

Note: 'N' = represents number of cases

'R' = represents percentage by Row and 'C' = represents percentage by Column.

The strength of the relationship between level of education and occupational structure in the kampung study areas has been examined by chi-square analysis, as is shown in Table 7.5. This table reveals that almost all of the respondents in improved kampungs who work in the formal sector have been educated to secondary and tertiary levels (88.4 percent) compared to the unimproved kampungs where that level was reached by only 59.6 percent. Conversely, the majority (76 percent in improved kampungs and 64 percent in unimproved kampungs) with no schooling or only primary education belong to the informal sector.

The findings suggest, at a three percent level of significance, that the occupational pattern of respondents is directly related to level of education, particularly

in the improved kampungs. In the unimproved kampungs, there is no significant relation between the two variables.

Table 7.5 Cross-tabulation of Level of Education and Occupation

LEVEL OF EDUCATION	TYPE OF OCCUPATION						
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS		
	A	B	C		A	B	C
No Schooling and Primary education	15	114	21	N	21	70	18
	10.0	76.0	14.0	R	19.3	64.2	16.5
	11.6	52.5	55.3	C	40.4	56.5	81.8
Secondary and Tertiary education	114	103	17	N	31	54	4
	48.7	44.0	7.3	R	34.8	60.7	4.5
	88.4	47.5	44.7	C	59.6	43.5	18.2
Chi-square :							13.00793
Significant level :							0.031567
Number of cases							384
							0.74153
							0.38917
							198

Note: **A** = Formal sector; **B** = Informal sector; **C** = Unemployment and retired

'N' = represents number of cases

'R' = represents percentage by Row and 'C' = represents percentage by Column.

Therefore, the sub-hypothesis that "the majority of the people in kampungs are employed in the informal sector and educated to a low level of education" has been found to be true.

7.3 Migration to the Kampungs

Jakarta has long served as a powerful magnet to migrants. The UN (1989) mentioned that the annual rate of migration into Jakarta during 1948-1953 was of the order of 116,000 people, during the 1960s was 86,000 people, and during 1971-1980 was 73,000. There has been a decline over the past several decades in the number of permanent migrants arriving annually in Jakarta. According to the Census Bureau Statistics (1991) the net migration rate has declined from the period of 1961-1971 (18.15 per thousand of people) to the period 1980-1990 (4.95 per thousand of people), as a result of the JABOTABEK programme. This is because the programme which was issued in 1981 encouraged migration to other regions of Bekasi, Tangerang and Bogor as a result of the development of new housing estates and manufacturing areas (Douglass, 1990; Yuniarto, 1992). With respect to the origins and characteristics of

migrants to Jakarta, West Java and Central Java have been the major sending areas (see Chapter 6).

However, the process of transition in the kampungs involves, and to a large extent is a consequence of, the influx of rural-oriented people who, for whatever reason, move into the kampungs. This phenomenon causes a significant part of the overall growth of the city's population and consequently leads to the inability of the city to provide residential space to meet the demands placed upon it. This section sets out to test the second socio-economic hypothesis that "the people in kampungs have migrated from outside the region to Jakarta". The hypothesis, which has two sub-hypotheses, will be tested in the following sub-sections.

The cause of migration to cities in developing countries has long been a contentious topic. Many of the approaches used to study this issue have centred upon "push-pull" models, based on the work of authors such as Todaro (1989). This approach centres on the question of whether it is the characteristics of the source or the destination of the migration which leads to the decision to migrate.

Todaro (1989:66) stated, "the overwhelming conclusion of almost all migration studies is that people migrate primarily for economic reasons. The greater the difference in economic opportunities between urban and rural regions, the greater the flow of migrants from rural to urban".

The basis of the above concepts will be tested in relation to the survey findings of this study to investigate the real factors involved in creating the mobility pattern of respondents living in kampung study areas.

7.3.1 Origin of Migrants

In this sub-section, the sub-hypothesis that "the majority of the people in kampungs are originally from rural areas or smaller cities" will be tested. This will be done by examining the extent to which the kampungs in Jakarta have attracted migrants from within and outside the region.

With reference to respondent types it was earlier mentioned that among the total of 582 respondents in the kampungs studied, only one third were originally born in Jakarta and another two thirds of the heads of households originated from outside of Jakarta (see Table 6.8). This study assumes that respondents who have been living in the kampungs for more than twenty years, before the establishment of KIP in 1969, were original inhabitants (74 percent of the respondents in improved kampungs and 67 percent in unimproved kampungs) and those who moved after 1969 were identified as the recent migrants (see Table 6.9).

The reason the migrants came was the belief that they could improve their living conditions by moving into urban kampung areas. Therefore it can be claimed that the kampung settlements were predominantly inhabited by migrants, particularly rural migrants. However, as a result, of the definition employed many of their children must be considered Jakartians.

Before KIP, there was a period of high urbanisation and rapid changes of built up areas in Jakarta, with a 4.6 percent annual growth rate of population (see Chapter Four). This period coincided with the reconstruction of the devastated economy and infrastructure of the whole country which had been destroyed by the political instability. In fact the country has struggled for this period to reach the level it was at before 1969.

Coincidental with the establishment of KIP was a significant change in political stability and an economic upswing that has been called 'the Government of New Order'. This change had a real effect on the lives of people in the country as a whole, especially in Jakarta city. Since 1969 Indonesia has embarked upon a nation-wide development aimed at gradually raising the living standards of people.

A national long-term development plan has been drawn up covering a 25 years period in an effort to give general direction to the development of the nation (see section 3.3 in Chapter Three). Huge physical expansion and a reduction in population growth started to take place during this period. Since then, the local government of

Jakarta has started its first large scale Kampung Improvement Programme under the name of Muhamad Husni Thamrin Programme (see section 4.5 in Chapter Four).

The association between the length of period of stay and the origin of migration has been analysed in Table 7.6. For the purpose of this analysis and the cross-tabulations, different locations identified in Table 6.8 have been regrouped into two origins: "Jakarta" and "Outside of Jakarta". Moreover, the different periods identified in Table 6.9 have been regrouped into two periods: "Before KIP" (before 1969) and "During KIP" (after 1969).

Table 7.6 Cross-tabulation of Migration and Period of Stay

ORIGIN OF MIGRATION	LENGTH OF PERIOD OF STAY						
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS		
	During KIP (after 1969)	Before KIP (before 1969)	Total		During KIP (after 1969)	Before KIP (before 1969)	Total
Jakarta	7	77	84	N	0	46	46
	8.3	91.7		R	0.0	100.0	
	7.1	27.0	21.9	C	0.0	34.6	23.3
Outside of Jakarta	92	208	300	N	65	87	152
	30.7	69.3		R	42.7	57.3	
	92.9	73.0	78.1	C	100.0	65.4	76.8
Total	99	285	384		65	133	198
	25.8	74.2	100.0		32.8	67.2	100.0
Chi-square :	17.06186			29.13682			
Significant level :	0.00004			0.00000			

Note: 'N' = represents number of cases

'R' = represents percentage by Row and 'C' = represents percentage by Column.

The relationship between the origin of migration and the length of period of stay reveals that the majority of the respondents in both improved and unimproved kampungs (78.1 and 76.8 percent respectively) are those who were originally from outside of Jakarta. About 69.3 percent in improved kampungs and 57.3 percent in unimproved kampungs were residents of Jakarta before KIP or before 1969. The majority of respondents from outside of Jakarta in the kampung study areas originated from various parts of the region. Some have come from remote rural areas and some from secondary cities and small urban areas. Although in the questionnaire the name of

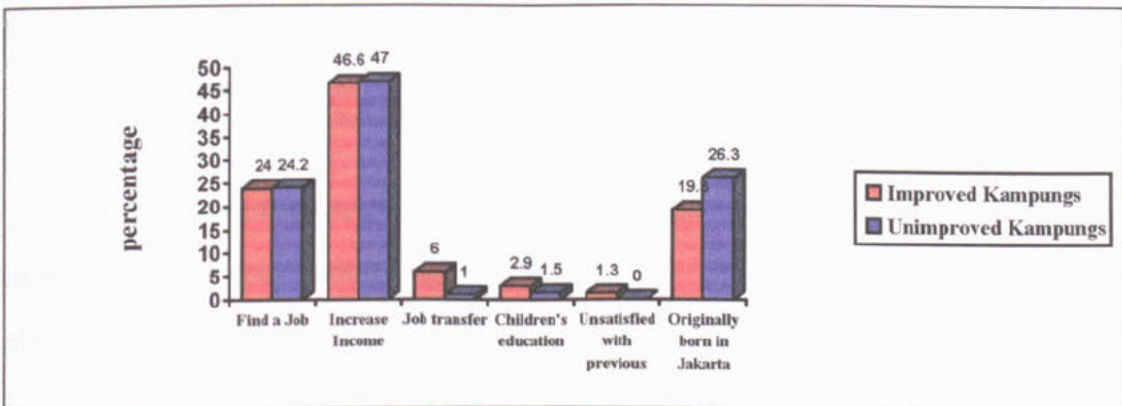
the place of origin was noted, for the purpose of reference they were recorded on the basis of their native region only. Hence, it confirms the sub-hypotheses that 'the majority of the people in kampungs are originally from rural areas or smaller cities'.

7.3.2 Reason for Staying in Kampung

"The majority of the people in kampungs work near-by" is the second sub-hypothesis. The analysis of it is based on the information obtained from the various factors which influenced the households under study to migrate to the city and to stay in the kampungs. In reference to other observations noted above the hypothesis is that economic considerations are the prime factor in deciding to migrate to the city, and to stay in the kampungs once there if the present location is suitably near to the new work place.

Many factors contributed to why these settlers have migrated to Jakarta. The survey conducted revealed that three main factors had encouraged them to migrate. First, because of unstable jobs in their previous village, which had caused difficulties, they felt improvement could be made with a good job in the city. Second, because of the low salary in their village job, there was a chance to increase their income in the city. Third, the settlers were born in Jakarta (see Chapter Six).

Figure 7.3 Factors Influencing Migration to the City

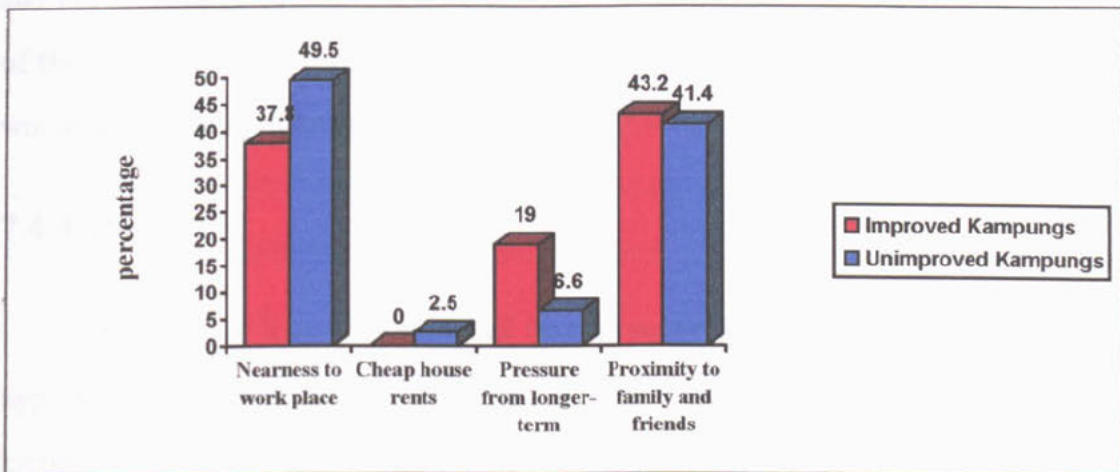


Note : The total number of respondents in improved kampungs are 384 and in unimproved kampungs are 198.

Source: Field Survey, December 1992.

Figure 7.3 reveals the reasons identified by the respondents for their decision to migrate to the city. About 47 percent of the respondents in both improved and unimproved kampungs migrated because of their unstable income situations, 24 percent for the opportunity to get a new job. Furthermore, 19 percent in improved kampungs and 26 percent in unimproved kampungs were originally born in Jakarta. In fact some of the respondents, about 2.9 percent in improved kampungs and 1.5 percent in unimproved kampungs, had migrated because of education opportunities for their children. From the interviews, it was found that some heads of households who worked in the formal sector migrated because of job transfer (6 percent in improved kampungs and one percent in unimproved kampungs), usually due to the movement of administrative offices to the Jakarta.

Figure 7.4 Factors Influencing Stay in Kampung Study Areas



Note : The total number of respondents in improved kampungs are 384 and in unimproved kampungs are 198.

Source: Field Survey, December 1992.

When respondents were asked to reveal the reasons behind their decision to stay in the kampung area, various answers were given. Figure 7.4 has been compiled to show the frequency distribution of such reasons. The study found that the prime factors for staying in kampung areas are economic considerations such as nearness to work place (which has reduced the transport costs); cheap house rents, and social considerations such as the pressure from longer-term residents (who persuaded them

that it was better to live in the urban areas than in the rural areas, and that they should live as they had in the villages); and the proximity to family and friends.

Analysis of factors influencing residents to stay in their areas indicated some differences between improved and unimproved kampungs. In the improved kampungs, social considerations such as proximity to family and friends (43.2 percent) and pressure from longer-term residents (19 percent) were influential. In the unimproved kampungs, however, economic considerations such as nearness to work place (49.5 percent) was the most influential factor. In addition, cheap house rents (2.5 percent) were considered as one of the economic factors influencing residents to keep on staying in the areas. This factor has no influence on the residents in the improved kampungs.

It was learned from the analysis that most of the respondents in both improved and unimproved kampungs (95 percent) indicated they were unprepared to move out of their areas. They felt the economic and social conditions of urban areas would be worse than those existing in their kampungs.

7.4 Conclusion

At this stage, it can be concluded that, as suggested by the first socio-economic hypothesis, the kampungs are inhabited by low income people and the people in kampungs have migrated from outside the region of Jakarta. From the above discussion, this study has found that the statement is true as more than two-thirds of the settlers in the kampung study areas were from low income groups. It has been found also that the settlers in improved kampungs are better off than the settlers in unimproved kampungs. They have higher incomes and a better level of education, even though their occupations are in the informal sector.

Since the majority of the settlers originated from outside Jakarta, this study has shown that this hypothesis is true. It reveals that the strongest "pull" factor to Jakarta and a residence in kampungs is 'economic factors of job opportunities'. The "push"

factor was the lack of job opportunities in their place of origin. Almost all of the respondents gave 'to find a job' and 'to be near to work-place' as the main reason for the migration. The percentage is higher for those in improved kampungs than in unimproved kampungs.

Therefore, the socio-economic hypotheses in the kampung study areas support the argument that KIP is seen as a means of improving quality of life in the kampung study areas.

SECTION TWO

PHYSICAL AND ENVIRONMENTAL HYPOTHESES

This second section presents the test of hypotheses in terms of physical and environmental indicators in kampung study areas. The aim of this section is to test the hypothesis that **"the Kampung Improvement Programme is consistent with the concept of sustainable urban development"** (three sub-hypotheses). It also attempts to test the hypothesis that **"the main purpose of the KIP is to improve the physical infrastructure and the living conditions of the people who live in kampungs"** (two sub-hypotheses).

The relevant principles and objectives of sustainable urban development must be to enable access to the facilities and services of the kampungs while maximising the resultant standard of living, the minimisation in the use of non-renewable resources, the achievement of the sustainable use of renewable resources, and the operation and maintenance of a clean and healthy environment, particularly through public participation (Hardoy and Satterthwaite, 1984; Elkin, McLaren and Hillman, 1991).

An improvement of infrastructure and services can be developed which would make life more enjoyable through meeting living needs while lowering the effects of poor sanitation, limiting damage to the environment, extending opportunities for groups in the population with low personal mobility, and generally promoting healthy

life-styles (Stren, White and Whitney, 1992). Therefore, in order to achieve sustainable urban development it is necessary to meet basic human needs (Choguill, 1993). The analysis in this section is mostly based on the perception of the respondents to the results of KIP and on the characteristics of infrastructure and services in the kampung study areas which have been analysed in Chapter Six. In this section, a test will be carried out of the relationships and the significance among the above variables.

7.5 Consistency of KIP to Sustainable Urban Development

This and the following sections set out to test the first main physical and environmental hypothesis that "the KIP is consistent with the concept of sustainable urban development". The hypothesis which consists of three sub-hypotheses will be tested in the following sub-sections respectively including, first **"the programme ensures that the poor have access to secure livelihoods"**; second that **"the development process satisfies basic human needs, such as clean water, adequate shelter and equality of education"**; and third that **"the KIP has significantly improved household living conditions at a cost which is sustainable even given low household incomes of participants"**. The analyses in this section are mostly based on the perception of the respondents from the heads of households survey in the kampung study areas. This will reflect the shortcomings of the past and present conditions of the urban development and services in their environment.

7.5.1 The Poor have Access to Secure Livelihoods

KIP is a settlement upgrading programme model which is concerned with improving physical urban services and living conditions and it is undoubtedly an important part of Indonesian urban development (see Chapter Three). The KIP approach is based on the concept of improving the well being of the poorer citizens by upgrading their physical environment and increasing their access to modern municipal services. This means that apart from upgrading the physical and environmental

conditions, KIPs activities also include the generation of livelihoods conducive to both sustaining and improving the well being of settlers. A wide variety of support services including education, family planning and nutrition, training, and socio-economic programmes are provided.

What then has been the settlers' reaction to the economic benefits provided by KIP? In terms of improvement of employment, the study revealed that respondents generally joined in the kampung activities (see section 6.5 in Chapter Six). It concluded that the kampung activities provided direct benefits to the members concerned and led to the community becoming more involved. In this way, the community was not only developing its area, but also took benefit directly by obtaining employment that would enable the people to provide for their families.

Since KIP-MHT 3, the planning strategy in terms of economic criteria has improved, encouraging small businesses and home industries with low interest loans which were provided by the co-operative banks (see section 4.5.3 in Chapter Four). The activities of the informal sector in the kampung areas generally are self employment in small businesses such as small trades, vendors and services, and home industries, including mechanics, electricians, carpenters and building workers. This study has shown that in the implementation of KIP, the community generally provides the labour from these informal sectors. The informal sector, within its working area, has developed and intensified to increase production and services and the marketing of its products.

Table 7.7 Residents' views toward Improvement in Livelihood, 1970-1990 (percentage)

TYPES OF SERVICES	IMPROVED KAMPUNGS					UNIMPROVED KAMPUNGS				
	A	B	C	D	N=384	A	B	C	D	N=198
Small Business	77.3	19.3	2.9	0.5	100.0	52.0	38.4	9.6	0	100.0
Home industry	52.9	19.3	27.6	0.3	100.0	12.1	40.9	47.0	0	100.0

Notes: **A** = Very big improvement; **B** = A small improvement; **C** = No improvement;

D = No comment; **N** = Total numbers of respondents.

Source: Field Survey, December 1992.

Therefore, in the survey, respondents were given two selected types of economic benefits that had been provided by the KIP. They were asked to comment. As seen in

Table 7.7, the types of services selected for comment and reaction were the improvement of activities in small business and home industry.

As it is clear from the Table 7.7 there has been a significant improvement in the economic activities of the settlers in improved kampungs compared to unimproved kampungs between 1970 and 1990. 77.3 percent of the respondents from improved kampungs indicated that there has been a big improvement in their small business activities during this period, one in which KIP was implemented, while 52.9 percent of the respondents expressed that there has been a significant improvement in home industries. The positive response from unimproved kampungs, which did not have KIP, is lower, suggesting some association between success in business and over the period in which KIP was implemented. Given that most residents in both areas are actually in the low-income informal sector, such responses probably reflect an increase in income which in turn may well result in physical improvement within some of the kampungs.

In Jakarta, economic activities of the people are concentrated in the informal sector (see Chapter Four and Table 6.3 in Chapter Six). As mentioned in section 7.2.2, over one third of the residents in improved kampungs belong to middle income groups and all of them are involved in employment (formal and informal sector) activities compared to only about 20 percent in unimproved kampungs. This reveals that there has indirectly been improvement in the household monthly earnings from these activities. Hence, it confirms the sub-hypothesis that 'the programme ensures that the poor have access to secure livelihoods'.

7.5.2 Satisfaction of Basic Human Needs

The urban poor in general and residents of slum and squatter settlements in particular have been affected severely by a deficiency of urban services. Slums and squatter settlements in developing countries lack basic urban services such as water supply, sewerage system, roads and footpaths, garbage disposal, health service and

proper education facilities (UNCHS, 1986). One of the major hypotheses of this study suggests that, in a similar way, residents in kampung settlements in the city of Jakarta suffer from a lack of basic human needs related to urban services such as clean water, adequate shelter, equality of education and a fair distribution of employment opportunities.

This study has found that the settlers' expectations in respect of the condition of urban development services have been adequately met. As shown in Table 7.8, a big majority of the respondents reported their satisfaction in terms of their expectations prior to the urban development process in their kampungs during the period 1970-1990. About 91.9 percent of the respondents in improved kampungs were satisfied with the religious facilities, 80.0 percent with the education facilities, 65.4 percent with the public transport, and 63.3 with the water supply.

Table 7.8 Settlers' Perception Toward Urban Development Process (percentage)

TYPES OF FACILITIES	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS			
	A	B	C	N=384	A	B	C	N=198
Providing capacity of Education	80.0	19.5	0.5	100.0	60.6	35.4	4.0	100.0
Providing capacity of Religion	91.9	8.1	0	100.0	61.6	31.3	7.1	100.0
Providing public transport	65.4	19.3	15.3	100.0	45.5	47.5	7.0	100.0
Increasing quality and quantity of water supply	63.3	24.2	12.5	100.0	19.7	62.1	18.2	100.0

Notes: A = Satisfied; B = Not Satisfied; C = No comment; N = Total numbers of respondent.

Source: Field Survey, December 1992.

This compares with responses from unimproved kampungs, where about 61.6 percent of the respondents were satisfied with the religious facilities, and 60.6 percent with the education facilities. However, a low percentage of the respondents in unimproved kampungs were satisfied with public transport (45.5 percent). It had already been observed, from the analysis of roads and footpaths (see Table 6.16), that the condition of transportation in unimproved kampungs was very poor.

The supply of clean water by the public water authority, PAM (*Perusahaan Air Mimum*) of Jakarta was seen as insufficient. Only 46 percent of the people in Jakarta receive clean water. In unimproved kampungs 28.8 percent of the residents and in improved kampungs 26 percent received clean water supply (Table 6.18). This is

primarily due to the location of the selected kampungs (both improved and unimproved kampungs) with respect to the existing PAM water distribution network. Whereas in the improved kampungs 24.2 percent of the respondents indicated that they were not satisfied with the quality and quantity of water supply, in the unimproved kampungs 62.1 percent of the respondents give the same response. Most of the residents not connect to the PAM network use ground- and surface-water.

It is suspected that, given the situation, the dissatisfaction in unimproved kampungs may well be due to more general dissatisfaction toward other factors rather than water supply alone. If this is not the case, it is indeed difficult to account for such high levels of dissatisfaction.

7.5.3 Living Conditions in the Kampungs

Once settled in the kampungs, what do inhabitants feel about their living conditions? Are they better off than before? If not, are they contemplating moving out of the kampungs? When the respondents were asked about any intention to move out from the kampungs, 91 percent of the respondents in improved kampungs answered "No", whilst 96 percent of the respondents in unimproved kampungs answered similarly. The remainder answered "Yes" because of the high living cost required to live in Jakarta.

Table 7.9 Settlers' Perception Toward Urban Services (percentage)

TYPES OF SERVICES	IMPROVED KAMPUNGS					UNIMPROVED KAMPUNGS				
	A	B	C	D	N=384	A	B	C	D	N=198
Education	71.0	13.4	14.2	1.3	100.0	63.9	19.4	16.7	0	100.0
Health	77.9	10.8	11.3	0	100.0	73.1	10.7	16.2	0	100.0
Religion	87.3	7.2	5.5	0	100.0	80.6	10.8	8.6	0	100.0
Market and Shops	73.1	13.0	12.1	1.8	100.0	2.0	75.3	22.7	0	100.0
Communal Hall	68.6	17.5	13.9	0	100.0	16.2	54.0	29.8	0	100.0

Notes: **A** = Very big improvement; **B** = A small improvement; **C** = No improvement; **D** = No comment; **N** = Total numbers of respondents.

Source: Field Survey, December 1992.

It is interesting to find that the improvement in urban services by the KIP have improved the perception of households to their living conditions, as shown in Table 7.9. More than 68 percent of the settlers in improved kampungs reported that there

has been a significant improvement in their access to services and facilities such as education, health, religious, markets and shops and community halls than before. The fact that about 75 percent of the respondents in unimproved kampungs reported that they have made only very small improvement in their markets and shops compared to those in improved kampungs indicates the contribution of KIP.

What then has been the settlers' perceptions after more than twenty years of settling down in the kampung areas toward social-cultural conditions?

Table 7.10 shows that a high majority of more than 75 percent of the respondents in improved kampungs thought social activities such as social integration, children's care, people living nearby, mutual-help of the neighbourhoods, internal security and self-help housing as a result of the KIP, made a very big improvement. Even though in unimproved kampungs these same activities were given lower ratings, there is still good mutual-help within the neighbourhoods and considerable self-help housing (83.2 and 86.9 percent).

Table 7.10 Settlers' Perception Toward Social Cultural Conditions (percentage)

TYPES OF ACTIVITIES	IMPROVED KAMPUNGS					UNIMPROVED KAMPUNGS				
	A	B	C	D	N=384	A	B	C	D	N=198
Social integration	78.1	16.7	5.2	0	100.0	74.0	12.8	13.1	0	100.0
Community organisation	35.7	56.3	5.7	2.3	100.0	39.9	42.4	17.7	0	100.0
Children's care	67.2	11.6	16.7	4.4	100.0	46.0	24.7	28.3	1.0	100.0
The type of people living nearby	79.8	11.9	7.3	1.0	100.0	66.2	26.8	7.1	0	100.0
Mutual-help of the neighbourhoods	88.5	6.7	2.8	2.1	100.0	83.2	11.7	5.1	0	100.0
Internal security	76.6	15.8	7.3	0.3	100.0	68.7	22.7	8.6	0	100.0
Self-help housing	75.5	14.6	4.2	5.7	100.0	86.9	10.1	3.0	0	100.0

Notes: **A** = Very big improvement; **B** = A small improvement; **C** = No improvement;

D = No comment; **N** = Numbers of respondents.

Source: Field Survey, December 1992.

It is interesting to find from the interviews that, with respect to self-help housing in both improved and unimproved kampungs, arrangements are made for community contributions in the provision of land to extend roads or footpaths to people who are willing to restructure their house and/or plot, such as to move back fences and/or house fronts. In the latter, these are usually rebuilt with help from the community.

Table 7.11 reveals the relationship between the house construction and the household incomes of the respondents in kampung study areas. As explained earlier in section 6.3.1. in Chapter Six, over three-fourths of the houses in improved kampungs have permanent structures (houses with solid walls, cement floors, and tiled roofs) and only 6 percent of the houses have temporary structures (houses with bamboo matting walls, earthen floors, thatched roofs, and sometimes no windows). On the other hand, 55.1 percent in unimproved kampungs have semi-permanent structures (houses with some combination of temporary and permanent materials).

Table 7.11 Cross-tabulation of House Construction and Household Income Groups

HOUSE CONSTRUCTION	HOUSEHOLD INCOME GROUPS							
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS			
	Lowest	Low	Middle		Lowest	Low	Middle	
Permanent	34	147	110	N	10	19	16	
	11.7	50.5	37.8	R	22.2	42.2	25.6	
	55.7	77.4	82.7	C	20.4	17.6	39.0	
Semi-permanent	24	33	13	N	35	59	15	
	34.3	47.1	18.6	R	32.1	54.1	13.8	
	39.3	17.4	9.8	C	71.4	54.6	36.6	
Temporary	3	10	10	N	4	30	10	
	13.0	43.5	43.5	R	9.1	68.2	22.7	
	4.9	5.3	7.5	C	8.2	27.8	24.4	
Chi-square :					5.87574			0.00004
Significant level :					0.01535			0.99494
Number of cases					384			198

Note: **Lowest** = < Rp. 100,000; **Low** = (Rp. 100,000 - 200,000); **Middle** = > Rp. 200,000

'N' = represents number of cases, 'R' = represents percentage by Row and

'C' = represents percentage by Column.

The micro level analysis of the relationship between the household income and the house construction (Table 7.11) indicates that in improved kampungs the majority of the low and middle income groups (77.4 and 82.7 percent respectively) own permanent structured houses, compared to unimproved kampungs where the majority of the income groups own semi-permanent structured houses (71.4, 59.6 and 36.6 percent). Therefore, this result supports the statistical conclusion that there is a significant relationship (at one percent level of significance) between house construction and household income in improved kampungs but not in unimproved kampungs. This finding confirms the sub-hypothesis that 'the KIP has significantly

improved household living conditions at a cost which is sustainable even given low household incomes of participants'.

7.6 Improvement of Standards of Living

This section sets out to test the second main physical and environmental characteristics hypothesis that "the main purpose of the KIP is to improve the physical infrastructure and the living conditions of the people who live in kampungs". The hypothesis consists of two sub-hypotheses which will be tested in the following sub-sections, namely "**human settlements**" and "**environmental degradation**".

Even though housing improvement is not an element of the KIP, it is part of the KIP philosophy that improved environmental conditions, increased security of tenure and developed human settlements will lead to a process of private or communal housing improvement.

7.6.1 Improvement of Human Settlements

Since low income people will continue to be the majority of those living in the settlements of kampung areas, it is therefore important to examine how the urban poor gain access to human settlements and how these channels can be improved. This section will test the sub-hypothesis that "**the improvements of kampung areas are designed to improve physical, economic and social conditions of human settlements**". According to the national KIP policy, improving human settlements not only implies physical improvement but also improvements in the socio-economic and human development aspects of kampung residents (see Chapter Three).

In order to test the above sub-hypothesis, it is essential to examine the extent to which the human settlements in improved kampungs have been translated into improved standards of living for the settlers, in terms of physical, social and economic conditions. The analysis of social and economic conditions of the kampung study areas have been discussed in sections 6.2 and 6.4.7 in Chapter Six and it has been concluded

that the socio-economic conditions of low income people living in improved kampung study areas are better than in unimproved kampungs. Most of neighbours in both improved and unimproved kampungs actively took part in activities designed to improve their social and economic conditions. Even though the neighbourhoods were made up of low income groups, this did not create difficulties for them in terms of becoming involved in any urban service activities.

This section is devoted to analysis of physical conditions of the kampung study areas. Therefore, cross-tabulations and chi-square statistics are used to determine the relationship among the physical conditions of human settlements, including home ownership, house construction, size of house, household size, land ownership and road/path conditions, of these kampung study areas.

The association between home ownership and house construction has been analysed in Table 7.12. For the purpose of analysis and the cross-tabulations, the different tenureships identified in Table 6.10 have been collapsed into two categories: "Owned occupied" and "Rented, government and family owned".

Table 7.12 Cross-tabulation of Home Ownership and House Construction

HOUSE CONSTRUCTION	HOME OWNERSHIP						
	IMPROVED KAMPUNGS			N	UNIMPROVED KAMPUNGS		
	A	B	Total		A	B	Total
Permanent	248	43	291	N	44	1	45
	85.2	14.8		R	97.8	2.2	
	80.8	55.8	75.8	C	25.9	3.6	22.7
Semi-permanent	43	27	70	N	85	24	109
	61.4	38.6		R	78.0	22.0	
	14.0	35.1	18.2	C	50.0	85.7	55.1
Temporary	16	7	23	N	41	3	44
	69.6	30.4		R	93.2	6.8	
	5.2	9.1	6.0	C	24.1	10.7	22.2
Total	307	77	384		170	28	198
	80.0	20.0	100.0		85.9	14.1	100.0
Chi-square :	15.42150						0.42224
Significant level :	0.00009						0.51582

Note: A = Owner occupied; B = Rented, government and family owned.

'N' = represents number of cases, 'R' = represents percentage by Row and

'C' = represents percentage by Column.

Table 7.12 indicates that there is a notable difference between the share of permanent houses in improved kampungs and in unimproved kampungs (75.8 and 22.7

percent respectively). It also indicates that there is a difference (55 percent) between the improved and unimproved kampungs with regard to the respondents who have permanent owner occupied houses. It further reveals that while the majority (80.8 and 55.8 percent respectively) of the respondents in improved kampungs are owner occupiers and renters of permanent houses, the picture is just opposite in case of unimproved kampungs (50 and 85.7 percent respectively). At the five percent level of significance, this finding is statistically significant as suggested by the chi-square test on house construction and home ownership.

The relationship between the house construction and the size of house as well as the household size are explained in cross-tabulations Tables 7.13 and 7.14, respectively. Table 7.13 shows that the distribution and the proportion of house construction and size of house in improved kampungs are better than in unimproved kampungs. Although only 51.2 percent of the permanent houses in improved kampungs consist of large houses (> 50 m²), compared to unimproved kampungs (95.6 percent). It must be noted that, as a result of KIP, the improved kampungs (see Figure 5.2, 5.3 and 5.4) have upgraded the layout plan of housing plots to roads, footpaths and drainage networks, but not in unimproved kampungs.

Table 7.13 Cross-tabulation of House Construction and Size of House

HOUSE CONSTRUCTION	SIZE OF HOUSE							
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS			
	< 30 m ²	30-50 m ²	> 50 m ²		< 30 m ²	30-50 m ²	> 50 m ²	
Permanent	14	128	149	N	0	2	43	
	4.8	44.0	51.2	R	0.0	4.4	95.6	
	51.9	68.4	87.6	C	0.0	2.8	34.7	
Semi-permanent	12	50	8	N	3	64	42	
	17.1	71.4	11.4	R	2.8	58.7	38.5	
	44.4	26.7	4.7	C	100.0	90.1	33.9	
Temporary	1	9	13	N	0	5	39	
	4.3	39.1	56.5	R	0.0	11.4	88.6	
	3.7	4.8	7.6	C	0.0	7.0	31.5	
Chi-square :					11.29360			0.47916
Significant level :					0.00078			0.48880
Number of cases					384			198

Note: Distribution of house sizes from Table 6.14 have been collapsed into three categories for this analysis (< 30; 30-50; and > 50 m²).

'N' = represents number of cases, 'R' = represents percentage by Row and 'C' = represents percentage by Column.

Table 7.14 reveals that permanent houses in improved kampungs dominate every size category. On other hand in unimproved kampungs, the majority of house constructed are semi permanent irrespective of the combination of all the three types of household size. Statistically, it can be concluded at one percent significance level that house construction in improved kampungs tend to be better a distribution of housing type, size and condition, a situation not found in unimproved kampungs.

Table 7.14 Cross-tabulation of House Construction and Household Size

HOUSE CONSTRUCTION	HOUSEHOLD SIZE						
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS		
	Small	Medium	Large		Small	Medium	Large
Permanent	52	110	129	N	2	16	27
	17.9	37.8	44.3	R	4.4	35.6	60.0
	65.8	75.9	80.8	C	14.3	16.2	31.8
Semi-permanent	20	25	25	N	9	63	37
	28.6	35.7	35.7	R	8.3	57.8	33.9
	25.3	17.2	15.6	C	64.3	63.6	43.5
Temporary	7	10	6	N	3	20	21
	30.4	43.5	26.1	R	6.8	45.5	47.7
	8.9	6.9	3.8	C	21.4	20.2	24.7
Chi-square :	6.26565				1.32769		
Significant level :	0.01231				0.24922		
Number of cases	384				198		

Note: For analysis, variables of household size from Table 6.5 have been regrouped into three categories: **Small** = 3 persons; **Medium** = 4 - 5 persons; **Large** = > 6 persons
 'N' = represents number of cases, 'R' = represents percentage by Row and
 'C' = represents percentage by Column.

Two more variables have been analysed as listed in Tables 7.15 and 7.16 to distinguish between the condition in improved and unimproved kampungs. Cross-tabulation and chi-square tests were used to determine the association between house construction and land ownership on the one hand, and land ownership and road/path conditions on the other. As concluded earlier in section 6.3 of Chapter Six, house ownership status in improved kampungs was normally higher on owner occupied land, but in unimproved kampungs, houses were more likely to be on government land.

Table 7.15 shows interesting differences between the improved and unimproved kampungs studied. As is clear, the majority of the permanent houses in improved kampungs are on owner occupied land (81 percent). On the contrary, the land

ownership status in unimproved kampungs shows that a substantial share of semi-permanent houses are owned by government and landlords (65.9 and 76.5 percent respectively).

Table 7.15 Cross-tabulation of House Construction and Land Ownership

HOUSE CONSTRUCTION	LAND OWNERSHIP							
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS			
	Owner occupied	Government land	Landlord		Owner occupied	Government land	Landlord	
Permanent	136	125	30	N	28	16	1	
	46.7	43.0	10.3	R	62.2	35.6	2.2	
	81.0	78.1	53.6	C	29.2	18.8	5.9	
Semi-permanent	19	31	20	N	40	56	13	
	27.1	44.3	28.6	R	36.7	51.4	11.9	
	11.3	19.4	35.7	C	41.7	65.9	76.5	
Temporary	13	4	6	N	28	13	3	
	56.5	17.4	26.1	R	63.6	29.5	6.8	
	7.7	2.5	10.7	C	29.2	15.3	17.6	
Chi-square :				6.84328				0.06964
Significant level :				0.00890				0.79187
Number of cases				384				198

Note: 'N' = represents number of cases, 'R' = represents percentage by Row and 'C' = represents percentage by Column.

Table 7.16 Cross-tabulation of Land Ownership and Road/Path Conditions

LAND OWNERSHIP	ROAD AND PATH CONDITIONS						
	IMPROVED KAMPUNGS			UNIMPROVED KAMPUNGS			
	Asphalted or cemented	Brick, soil and mud		Asphalted or cemented	Brick, soil and mud		
Owner occupied	165	3	N	19	77		
	98.2	1.8	R	19.8	80.2		
	43.3	100.0	C	59.4	46.4		
Government land	160	0	N	11	74		
	100.0	0.0	R	12.9	87.1		
	42.0	0.0	C	34.4	44.6		
Landlord	56	0	N	2	15		
	100.0	0.0	R	11.8	88.2		
	14.7	0.0	C	6.3	9.0		
Chi-square :				3.03676			1.61429
Significant level :				0.04140			0.20389
Number of cases				384			198

Note: 'N' = represents number of cases, 'R' = represents percentage by Row and 'C' = represents percentage by Column.

Table 7.16 shows interesting differences between the improved and unimproved kampungs studied. There seems to be a direct relationship between owner occupation

and the improvement of the roads/paths, which in this case are asphalted and cemented (98 to 100 percent) as a result of the KIP. On other hand in unimproved kampungs, the majority of roads/paths are of brick, soil and mud category, irrespective of the type of land ownership (80 to 88 percent). These results support the statistical conclusion that there is a significant relationship (at five percent level of significance) between land ownership and road/path conditions in improved kampungs but not in unimproved kampungs.

The findings made above give strong support to the sub-hypothesis that 'the improvements of kampung areas have contributed to the improvement of the physical, social and economic conditions of the settlers'.

7.6.2 Minimising Environmental Degradation

As mentioned in Chapter Two, this study has defined sustainability as maintaining a constant environmental capacity. The operations of some essential environmental services such as the maintenance of sanitation or the improvement of infrastructure and services, requires not so much a constant environmental state as a particular improvement of environmental conditions. This sub-section sets out to test the second sub-hypothesis that **"the improvements of kampung areas are designed to minimise environmental degradation"**.

Waste and pollution are concentrated in urban areas because of the concentration of economic activity in these areas. Reducing waste and using recyclable materials are central to a waste management strategy which aims to reduce resource consumption and land waste and air pollution. A poor urban environment is partially the result of a lack of basic infrastructure and services, a lack of a safe and sufficient water supply and overcrowded and cramped living conditions. One aim of KIP is to improve the urban environment and reduce environmental degradation by improving and developing the infrastructure and services in the kampung areas.

Therefore, sustainable urban development should minimise the generation of waste, hopefully viewing that waste as a resource. It should involve the efficient use of resource and recycling of materials, thereby contributing to the minimisation of environmental degradation.

It has been noted in the previous chapter that infrastructure and services for low income people living in improved kampung study areas was better than in unimproved kampungs (see section 6.4 in Chapter Six). To strengthen the argument that the urban environment has improved in improved kampungs, this section will test the extent to which infrastructure and services including roads, drainage, water supply, sanitation and garbage condition have been translated into minimising environmental degradation. Therefore, cross-tabulations analysis is used to determine the relationship between the urban environment and housing characteristics of the kampungs studied.

Table 7.17 Cross-tabulation of Sanitation System and House Construction

SANITATION SYSTEM	HOUSE CONSTRUCTION						
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS		
	Permanent	Semi-permanent	Temporary		Permanent	Semi-permanent	Temporary
Personal Toilet	214	37	20	N	45	100	40
	79.0	13.7	7.4	R	24.3	54.1	21.6
	73.5	52.9	87.0	C	100.0	91.7	90.9
None or shared toilet	77	33	3	N	0	9	4
	68.1	29.2	2.7	R	0.0	69.2	30.8
	26.5	47.1	13.0	C	0.0	8.3	9.1

Note: 'N' = represents number of cases

'R' = represents percentage by Row and 'C' = represents percentage by Column.

There is an observed relationship between the type of sanitation system in a house and the permanence of house construction of the respondents in improved kampungs as given in Table 7.17. This finding is probably due to the KIP's emphasis on the improvement of sanitation systems. The physical conditions of houses in improved kampungs were better than those in unimproved kampungs. However, the latter had better toilet facilities. 100 percent of the permanent houses had personal toilets in unimproved kampungs as compared to 73.5 percent in improved kampungs. The percentage of personal toilets in semi-permanent and temporary houses were also

higher in unimproved kampungs (91.7 and 90.0 percent) than in improved kampungs (52.9 and 87 percent). The remaining residents in improved kampungs used shared toilets, or simply had none. These include the use of MCK, which was established as a result of KIP.

Table 7.18 Cross-tabulation of Drain Conditions and Road/Path Conditions

DRAIN CONDITIONS	ROAD AND PATH CONDITIONS					
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS	
	Asphalted or cemented	Brick, soil and mud			Asphalted or cemented	Brick, soil and mud
Permanent construction	309	2	N	18	119	
	99.4	0.6	R	13.1	86.9	
	81.1	66.7	C	56.3	71.7	
Temporary construction	72	1	N	14	47	
	98.6	1.4	R	23.0	77.0	
	18.9	33.3	C	43.8	28.3	
Number of cases			384	198		

Note: 'N' = represents number of cases

'R' = represents percentage by Row and 'C' = represents percentage by Column.

Table 7.19 Cross-tabulation of Drain Conditions and Flood Conditions

DRAIN CONDITIONS	CONDITION OF FLOOD IN RAINY SEASON					
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS	
	YES	NO			YES	NO
Permanent construction	20	291	N	28	33	
	6.4	93.6	R	45.9	54.1	
	37.7	87.9	C	25.2	37.9	
Temporary construction	33	40	N	83	54	
	45.2	54.8	R	60.6	39.4	
	62.3	12.1	C	74.8	62.1	
Number of cases			384	198		

Note: 'N' = represents number of cases

'R' = represents percentage by Row and 'C' = represents percentage by Column.

Cross-tabulation in Tables 7.18 and 7.19 respectively show that the road/path and the flood conditions are significantly related to the drain conditions in the kampungs studied. As is clear from Table 7.18 the majority of the road/path conditions (81.1 percent) in improved kampungs have permanent drain construction compared to unimproved kampungs (56.3 percent). This is also reflected from the flood conditions. About 88 percent of the residents reported that no flooding takes

place in improved kampungs as against only 38 percent in unimproved kampungs (see Table 7.19).

Furthermore, the association between the home ownership and the infrastructure services such as water supply, garbage, drainage and flooding conditions have been analysed in Tables 7.20, 7.21, 7.22 and 7.23.

Table 7.20 shows that there is no significant difference between the improved and unimproved kampungs in terms of the access to the water sources against the ownership status. It is to be mentioned, as noted in previous section of analysis, that piped water from PAM is still not available and is a problem throughout the urban areas in Indonesia. Hence, the kampungs in Jakarta are not exceptions. It is clear from the result of the study that the main sources of the water supply both in improved (47.7 percent) and unimproved (47.5 percent) kampungs is from the ground water.

Table 7.20 Cross-tabulation of Home Ownership and Water Sources

WATER SOURCES	HOME OWNERSHIP						
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS		
	A	B	Total		A	B	Total
Piped Water	84	16	100	N	52	5	57
	84.0	16.0		R	91.2	8.8	
	27.4	20.8	26.0	C	30.6	17.9	28.8
Owned Ground Water	143	40	183	N	76	18	94
	78.1	21.9		R	80.9	19.1	
	46.6	51.9	47.7	C	44.7	64.3	47.5
Public/Vendors	80	21	101	N	42	5	47
	79.2	20.8		R	89.4	10.6	
	26.1	27.3	26.3	C	24.7	17.9	23.7
Total	307	77	384		170	28	198
	79.9	20.1	100.0		85.9	14.1	100.0

Note: A = Owner occupied; B = Rented, government and family owned.

'N' = represents number of cases, 'R' = represents percentage by Row and

'C' = represents percentage by Column.

Table 7.21 reveals an improved system of garbage collection in the improved kampungs where 97.4 percent of the garbage are being collected by the local authorities, compared to the unimproved kampungs (63.6 percent). This finding reflects a relatively clean environmental condition of improved kampungs as result of KIP compared to unimproved kampungs. Besides, it reveals that the result of KIP has

improved the knowledge of the residents in improved kampungs that throwing the garbage everywhere is a bad habit.

Table 7.21 Cross-tabulation of Home Ownership and Garbage System

GARBAGE SYSTEM	HOME OWNERSHIP						
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS		
	A	B	Total		A	B	Total
Collected by Local Authorities	302	72	374	N	110	16	126
	80.7	19.3		R	87.3	12.7	
	98.4	93.5	97.4	C	64.7	57.1	63.6
Thrown everywhere	5	5	10	N	60	12	72
	50.0	50.0		R	83.3	16.7	
	1.6	6.5	2.6	C	35.3	42.9	36.4
Total	307	77	384		170	28	198
	79.9	20.1	100.0		85.9	14.1	100.0

Note: A = Owner occupied; B = Rented, government and family owned.

'N' = represents number of cases, 'R' = represents percentage by Row and

'C' = represents percentage by Column.

Table 7.22 indicates that the improved kampungs have a better drainage system compared to unimproved kampungs. About 81 percent of the owner-occupied houses are provided with permanent construction of drainage in improved kampungs as against 69 percent in case of unimproved kampungs.

Table 7.22 Cross-tabulation of Home Ownership and Drainage System

DRAINAGE SYSTEM	HOME OWNERSHIP						
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS		
	A	B	Total		A	B	Total
Permanent Construction	249	62	311	N	118	19	137
	80.1	19.9		R	86.1	13.9	
	81.1	80.5	81.0	C	69.4	67.9	69.2
Temporary Construction	58	15	73	N	52	9	61
	79.5	20.5		R	85.2	14.8	
	18.9	19.5	19.0	C	30.6	32.1	30.8
Total	307	77	384		170	28	198
	79.9	20.1	100.0		85.9	14.1	100.0

Note: A = Owner occupied; B = Rented, government and family owned.

'N' = represents number of cases, 'R' = represents percentage by Row and

'C' = represents percentage by Column.

Table 7.23 shows the extent of flooded areas in kampung study areas. As is clear from the table, only 13.8 percent of the respondents in improved kampungs reported the occurrence of flooded areas while it is as high as 56 percent in case of unimproved kampungs.

Table 7.23 Cross-tabulation of Home Ownership and Flooded Area

FLOODED AREA	HOME OWNERSHIP						
	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS		
	A	B	Total		A	B	Total
YES	43	10	53	N	101	10	111
	81.1	18.9		R	91.0	9.0	
	14.0	13.0	13.8	C	59.4	35.7	56.1
NO	264	67	331	N	69	18	87
	79.8	20.2		R	79.3	20.7	
	86.0	87.0	86.2	C	40.6	64.3	43.9
Total	307	77	384		170	28	198
	79.9	20.1	100.0		85.9	14.1	100.0

Note: **A** = Owner occupied; **B** = Rented, government and family owned.

'N' = represents number of cases, 'R' = represents percentage by Row and

'C' = represents percentage by Column.

This finding of the above section on physical infrastructure facilities in kampung areas confirms strongly that KIP has provided a cleaner environment in kampungs. Hence the sub-hypothesis that 'the improvements of kampung areas are designed to minimise environmental degradation' is true.

7.7 Conclusion

Based on the discussion, it can be concluded in the second hypothesis in terms of physical and environmental that the Kampung Improvement Programme is consistent with the concept of sustainable urban development and has improved the physical infrastructure and living conditions of the people who live in kampungs. Throughout the comparison between improved and unimproved kampungs, this study has found that the hypothesis should be accepted. The KIP has provided better and more secure livelihoods for the settlers and has given an opportunity to improve their economic activities from informal sectors which are generally self employment in small businesses and home industries.

This study has also found that the KIP has improved the quality of life of the settlers which represents the majority of the kampungs' population. From the survey conducted, it has been shown that more than two-thirds of the settlers in improved

kampungs reported their satisfaction with what they had received from the urban development process and the urban services as a result of KIP. Their satisfaction is not only in terms of urban facilities and services such as education, health, religious, markets and shops and community halls, but also in terms of social activities such as social integration, children's care, people living nearby, mutual-help of the neighbourhoods, internal security and self-help housing.

In terms of household living conditions, the majority of the respondents in improved kampungs have relatively improved standards of living compared to unimproved kampungs. The improvements were verified through the improvement of housing conditions, roads and paths, sanitation, health services and secure livelihoods which have an effect on improving physical, social and economic conditions of human settlements and lead to a minimisation of environmental degradation.

By their nature, some KIP components tend to benefit the kampung study areas more significantly than others. Decreased flooding, for instance, tends to affect most respondents to the same degree, while the provision of piped water is seen as a greater benefit to the respondents who previously had very bad access to water, compared to the respondents who have access to a private well providing clean water. Construction of roads and paths tends to benefit all because of better accessibility of the kampung for transportation and communication. Moreover, the urban environment in the improved kampungs has been translated to a more clean environment compared to the unimproved kampungs.

It is interesting to notice that the KIP is consistent with the concept of sustainable urban development which is to create balanced urban development without jeopardising future generations. This is a positive sign that the government should continue the programmes but that they still need further systematic and sound promotion and clarification as the kampung people in some cases can still not see the contribution of KIP to the whole region. Therefore, this satisfaction in living conditions and quality of life is only possible because of the impacts of the KIP.

SECTION THREE

INSTITUTIONAL AND COMMUNITY HYPOTHESES

Sustainable urban development also requires an economic and social system which looks beyond current political time horizons and hands on to the next generation an amount and quality of wealth, both to government and to residents, which is at least equal to that inherited by the current generation (Elkin, McLarren and Hillman, 1991). Therefore, future urban development must provide for forms of social organisation which prevent inequity from damaging sustainability.

The development of urban infrastructure and social services in the urban kampungs of Jakarta under the KIP have shown positive impacts on the standard of living and the quality of life among the kampung population (see previous sections). This includes the provision of better social and physical infrastructure such as community facilities, road and path networks, water and electricity supply, sanitation system, education and health facilities.

However, this does not mean that the objectives of the urban development have been fully achieved. There is a need to develop an understanding of utilising community resources to deliver basic physical and social services. Pioneering attempts to achieve this goal can be termed participatory, self-help, co-operative, self-sustaining, and community based, insofar as they are all characterised by people's participation and organisation (Turner, 1976; Yeung and McGee, 1986; Choguill, 1993).

It is also intended that there be a minimum of central government involvement. The mainspring of the idea may stem from the government, the private sector, or the community but the distinguishing feature is that public transfers will be reduced to enable public capital to be utilised for other purposes.

According to the Structure Plan for DKI Jakarta 1985-2005, the success of the urban development of Jakarta will largely depend not only on the efforts of the government sector but also on the full participation of the private sector and community (DKI Jakarta, 1987:30).

Therefore, this section presents the test of hypotheses in terms of institutional framework and community participation indicators in the kampung study areas. The aims of this section are to provide evidence for the hypothesis that **"a national policy in KIP is to minimise central government involvement in the local kampung planning process in a long run"** (two sub-hypotheses). It also attempts to provide evidence for the hypothesis that **"the success of KIP is dependent on the spirit of community participation in mutual-help"** (two sub-hypotheses).

The analyses in this section are mostly based on the frequency tables from the perception and satisfaction of the settlers from the heads of households and dependents from the leadership survey, and also based on descriptive analysis as a result of observation and interviewed with the Lurahs, the leaders and staff of BAPPEM P-MHT. This will reflect the shortcomings of the present performance of the urban development sectors in the both improved and unimproved kampungs.

For this reason, 90 local leaders in improved kampungs and 52 local leaders in unimproved kampungs were selected for interview. The household survey of the settlers will be concerned with the perception, opinion and satisfaction level towards urban development and implementation of KIP. Whilst the survey of the community leadership will follow the same format as that used in the interviews of residents, it will concentrate on neighbourhood participation and the leaders' role in that participation.

7.8 Central Government Involvement

This and the following sections set out to test the first main hypothesis that **"a national policy in KIP is to minimise Central Government involvement in the local kampung planning process in a long run"**. The hypothesis which consists of two sub-hypotheses will be tested in the following sub-sections. The first sub-hypothesis is **"the central government plays a major role in provision of physical infrastructure facilities while implementing KIPs"**. The second sub-hypothesis is **"the principle of KIP is co-ordination and integration of government and**

"the principle of KIP is co-ordination and integration of government and community for urban development". In order to test these hypotheses, the governments, the leaders and the residents' relationships will be examined.

In Indonesia, the government plays a very important role in delivering urban services to its population, both in rural as well as urban areas (see Chapter Three). The key political and administrative factor standing in the way of effective urban service delivery in the urban areas is participation among government officials, leaders and residents. This expresses itself specifically in the ability of the existing relationship to link government and the people, and to integrate itself effectively into the service delivery process.

Without participation of leaders and communities to channel and aggregate demands, government officials find it increasingly difficult to develop integrated service programmes and establish goals that can muster widespread support and sympathy. In the absence of vibrant and active leadership, the government also finds it difficult to mobilise support from the people to initiate mutual-help activities and to assume para-administrative duties on behalf of the government, both of which would relieve the government from some of the demands made upon it and at the same time lay down the social organisational infrastructure necessary for the people to better manage their own affairs. Therefore, to discover factors that can lead to a better understanding of leadership effectiveness, citizen participation, government responsiveness, and linkages among the three parties in the kampung study areas, statistical and descriptive analysis that can maximise differences and similarities among localities are desirable.

7.8.1 The Involvement of Government and the Community in Urban Development

The administrative system in Indonesia is essentially a vertical system which stretches from the highest (President) to the very lowest levels (Lurah), each level being answerable to the one above it (see Section 3.2.2). In the urban context, the city consists of municipalities (*Kotamadya*), the head being a Walikota, the next sub-

districts (*Kecamatan*), the head being a Camat and the lowest level is the village (*Kelurahan*) head by Lurah. All are government officials. Leaders of the neighbourhoods (RW) and block groups (RT) are volunteer members who are elected by the community. Therefore, the whole system provides a mechanism for communication and negotiation from the top to the lowest levels of community organisations (see Diagram 3.1).

The Regional Government of Jakarta is a sub-system of the National Government, as laid down by the constitution in Law No. 5 of 1974. Because it has the role of administrator of development and social affairs, and because development costs cannot be fully borne by the government sector alone, whether by regional or central government, it needs to carry out the following steps:

1. Direct steps: where the government invests funds and resources for the building of infrastructure and facilities which serve the public benefit and are in accordance with the priorities laid down, including roads, bridges, schools, market terminals, sanitation and other social services.
2. Indirect steps: In order that the development which is being directly implemented by the government can provide incentives for further planned development, it is necessary to initiate support services such as providing information and guidelines for the whole population, and preparing new or improving existing regulations either to provide incentives or establish controls for development within the community, with the aim of benefiting the majority.
3. The private sector and community should be made increasingly aware of its responsibilities in participating in development and of the benefit which can accrue to both the formal and informal sectors from promoting mutual aims (DKI Jakarta, 1987:30).

The government officials of Jakarta have evolved a set of standardised, formalised, and distinctive administrative procedures for conducting their public affairs.

The main stream of KIP as it has developed in the past 20 years and as it will be done in the coming years in a great number of Indonesian cities can be characterised as the delivery of basic urban services by the central government to the low income urban kampung areas. In the Repelita II (1974-1979), decisions with respect to which services, to what level, where provided were taken by the central government alone. In that sense, the 'official' KIP clearly was a top-down programme. No direct charges were made to the receivers of the services which may enforce the effect that KIP was perceived as a "gift" from the central government without any contribution in return. This charity or welfare approach was stressed in the communication with the community.

However, since Repelita III (1979-1984), the central government has been concerned about some weaknesses in the past KIPs, particularly in the co-ordination of KIP with other supporting services and finance, and integrated socio-economic development programmes with community participation (see section 3.6 in Chapter Three). Therefore, by Instruction No. 4 of 1979 of the Minister of Home Affairs, an initiative was taken to establish a bottom-up planning structure. Procedures were introduced to facilitate the inclusion in the budgets of proposals for development projects and programmes at kelurahan level. At this level, proposals are discussed by the Village Resilience Organisation or LKMD (see section 4.5.1 in Chapter Four) during annual kelurahan meetings. After approval by the Lurah, they are forwarded to the Camat. Diagram 4.1 shows that the Kelurahan and LKMD help to generate the interest of neighbours to participate in the programme.

To assess the perceived government involvement in the KIP, the respondents of households and the leaders were asked to give their perception of the government of Jakarta in providing urban development services. Their perceptions are grouped into "effects very much", "some effect", and "no effect", as shown in Tables 7.24 and 7.25. These tables reveal that the magnitude of involvement of government of Jakarta in

These tables reveal that the magnitude of involvement of government of Jakarta in maintenance of urban development services in both improved and unimproved kampungs.

As is clear from Table 7.24, more than 66 percent of the respondents in improved kampungs reported that the government of Jakarta is very much involved in maintaining the urban development services such as garbage collection, sewerage and drainage system, public services and measures against flooding and pollution. On the other hand, the results from unimproved kampungs (Table 7.25), indicates that the government involvement has not made any significant effect in maintaining urban development services compared to improved kampungs.

Table 7.24 Settlers' Perception Toward Government of Jakarta's effecting on the Urban Development Services in Improved Kampungs (percentage)

TYPES OF SERVICES	IMPROVED KAMPUNGS							
	HOUSEHOLDS				LEADERS			
	A	B	C	N=384	A	B	C	N=90
Providing capacity of garbage collection	76.7	13.3	10.0	100.0	86.7	8.3	5.0	100.0
Flooding and pollution improvement	77.8	17.8	4.4	100.0	81.3	9.3	9.4	100.0
Improving quality of sewerage and drainage system	86.7	15.6	7.8	100.0	84.8	11.5	3.7	100.0
Providing public services	66.7	22.2	11.1	100.0	76.7	12.2	11.1	100.0

Notes: A = Very much effect; B = Some effect; C = No effect.

Source: Field Survey, December 1992.

Table 7.25 Settlers' Perception Toward Government of Jakarta's effecting on the Urban Development Services in Unimproved Kampungs (percentage)

TYPES OF SERVICES	UNIMPROVED KAMPUNGS							
	HOUSEHOLDS				LEADERS			
	A	B	C	N=198	A	B	C	N=52
Providing capacity of garbage collection	48.5	34.7	16.8	100.0	40.4	38.5	21.2	100.0
Flooding and pollution improvement	23.5	35.6	40.9	100.0	28.8	38.5	32.7	100.0
Improving quality of sewerage and drainage system	15.0	38.7	46.3	100.0	25.0	28.8	46.2	100.0
Providing public services	37.8	23.3	38.9	100.0	44.2	23.1	32.7	100.0

Notes: A = Very much effect; B = Some effect; C = No effect.

Source: Field Survey, December 1992.

The local leaders exhibited more systematic contact compared with government officials. Leaders in the kampung study areas were involved in voluntary associations, and a majority were officers in charge of neighbourhoods (RW) and block groups (RT). Communication between the 'official' and the kampung community takes place through the hierarchical line Camat to Lurah, Lurah to Head RW, Head RW to Head RT and Head RT to People. It must be stressed that most of these voluntary community organisations were effective and significant. Inter organisational relationships were existent and their level of activity high (see sections 6.5 and 6.6 in Chapter Six).

To determine the leadership activity and involvement in their environment, respondents of households were asked to assess the leaders in their community. As is clear from Table 7.26, the involvement of community leaders in keeping the kampung environment clean seems to be good especially in the operation of mutual-help and in garbage collection.

Table 7.26 Factors Influencing the Leaders (RT/RW) on the Environment

ATTENTION OF RT/RW	IMPROVED KAMPUNGS				UNIMPROVED KAMPUNGS			
	A	B	C	N=384	A	B	C	N=198
To the garbage collection	67.4	31.8	0.8	100.0	35.9	61.1	3.0	100.0
To the drainage system	52.1	44.5	3.4	100.0	12.1	82.3	5.5	100.0
Operation of mutual-help	87.4	8.5	4.1	100.0	64.6	23.3	12.1	100.0

Notes: **A** = High attention; **B** = Fairly attention; **C** = Low attention.

Source: Field Survey, December 1992.

All these findings above confirm strongly that the involvement of government and the community in urban development have translated their relationships and participation in implementation of KIP. Hence the sub-hypothesis that the central government plays a major role in provision of physical infrastructure facilities implementing KIPs is true.

7.8.2 Relationships Among Governments, Leaders, and Residents

In an attempt to understand the tripartite relationships among government officials, leaders, and residents in the kampung study areas, and toward each other, the structure of these relationships was studied. This search was carried out to identify areas of potential and actual co-operation as well as conflicts between the three groups.

Government - Leader Relationships. Local governments and community leaders maintain a cordial but distant relationship. Most of the time local leaders approach governments in their role as individuals, and they rarely resort to collective confrontation. Leaders (RW/RT) are only loosely integrated into administrative activities and the decision making process. Governments tend to have a more favourable opinion of leaders than leaders have of themselves.

Although the available data do not permit a detailed examination of the relationship of government and leaders, it is still interesting in general terms to see what the potential impact of their relationships is on the implementation within the social sector. For instance, the Camat will consult the Lurahs (governments' side), which may consult RW/RT heads (leaders' side). In each case, however, the main motivation is to solve problems rather than to consult the community or even to have the community participate in decision - making. Because the leaders perform on behalf of governments, the analysis indicates that, to government at least, local leaders have played a significant subsidiary/complementary role in day-to-day administration.

Government - Resident Relationship. In dealing with citizens, the government tended to display complacency and a sense of security in their power together with an appreciation for citizen participation. With respect to the residents, their relationship with government is very simple. For instance, when the BAPPEM P-MHT make tenders for each project, selected contractors are introduced to the community and they cooperate with the people in implementing the project. Supervisors are usually drawn from the community, which helps increase the residents' sense of involvement in

the project. Furthermore, the BAPPEM P-MHT unit does not have the responsibilities for maintenance as the municipality considers the residents responsible for it. It means that the community's own contribution to the realisation of kampung improvement has become a strong asset to the programme's sustainability.

Leader - Resident Relationship. For the most part, leaders and residents maintain a tight relationship, with each group having a high opinion of the other. The kampung residents are consulted through their community leaders, convened in the LKMD. The leaders are chosen by the people and have a key role in mobilising the community's development potential and in representing the community to the outside world.

One of the most important relationships between leaders and residents is '*Gotong Royong*' or mutual-help. For instance, a monthly programme in their community is a dynamic bond of the urban kampung community in mutual-help, such as cleaning or minor repairing of the roads/paths and drain system; some residents contribute their labour, others provide cement or other building materials; and a regular garbage collection.

Effect of Relationships. A national KIP policy stated "physical improvement is considered to be the breakthrough for stimulating human development, together with revitalising the socio-economic activities of the people" (see section 3.6.3 in Chapter Three). Moreover, one of the planning objectives of KIP-MHT Jakarta was "to encourage the population to realise its potential for self-sufficiency and co-operation within their own kampung" (see section 4.5.2 in Chapter Four).

Therefore, the KIP is based on the idea that sustainable urban development can only be achieved by linking the public sector and the community. Important elements in this relation are regular consultation, mutual commitment, a shared contribution to development, and care for and development of the living environment. Regular consultation makes it more likely that people become involved in shaping their own living environment. These elements are closely interrelated and reinforce each other.

As mentioned in analysing the attitude responses and the characteristics of leadership in Chapter Six, both improved and unimproved kampungs have a good social relationship with their neighbours and are satisfied with the government involvement. A strengthening the relationships between government and residents have been accepted, as is shown in Table 7.27.

Table 7.27 Involvement of the Government and Residents in Provision and Maintenance of Urban Services in Kampungs (percentage)

TYPES OF INVOLVEMENT	IMPROVED KAMPUNGS			UNIMPROVED KAMPUNGS		
	A	B	N=384	A	B	N=198
Establish the roads/paths	79.9	10.1	100.0	4.5	95.5	100.0
Establish the MCK	91.4	8.6	100.0	0.0	0.0	100.0
Establish the drainage system	92.7	7.3	100.0	5.1	94.9	10.0
Provide the land for the roads/paths	34.7	65.4	100.0	30.8	69.2	100.0
Provide the land for MCK	54.5	46.5	100.0	0.0	0.0	100.0
Operation and maintenance the drainage system	1.3	98.7	100.0	5.1	94.9	100.0

Notes: **A** = Government and/or under the KIP; **B** = Residents (Community participation).

MCK = Bathing, Washing and Toilet (*Mandi Cuci Kakus*)

Source: Field Survey, December 1992.

This table is the result of three questions asked of the respondents in kampung study areas. The questions are: who established the infrastructure facilities?; who provided the land for infrastructure facilities?; and who is involved in operation of and maintaining the infrastructure facilities in kampungs? About 65 percent of the land for roads/paths and 47 percent of the land for MCK in improved kampungs are provided by the residents to enable government and/or KIP to establish such facilities. Almost 99 percent of the operation and maintenance of the drain system is looked after by the community themselves in both improved and unimproved kampungs. On the other hand, almost 95 percent of the infrastructure facilities have been provided and maintained by the community themselves in unimproved kampungs. The relationships between the government and the residents in unimproved kampungs are weaker than improved kampungs.

Therefore, it is probable that central government involvement in the successful implementation of KIPs is largely dependent upon to the availability of leadership within the community and the efforts by the residents. Only limited services were provided by the central government. The necessary funds, resources and training were essentially from central government. The implementation and the construction provided evidence of community participation.

This implies that no additional funds and resources were to be expected from government once the improvements were implemented. The community will necessarily be concerned with collecting the funds to maintain these facilities. These findings support the sub-hypothesis that the principle of KIP is co-ordination and integration of government and community for urban development.

7.9 Spirit of Mutual-help

Mutual-help (*gotong royong*) efforts have been made through the kampung study areas to improve and to maintain the environment. This section and the following sub-section will be used to test the last section of the research hypothesis, that "the success of KIP is dependent on the spirit of community participation in mutual-help". There are two sub-hypotheses which support the main hypothesis: the first is "**public participation in the KIP is easily enacted and mobilised**"; and the second is "**the people are directly involved in the operation and maintenance of the projects**". The analyses will be tested by examining the activity patterns of the respondents and the leadership of the kampung study areas.

This survey found that when asked about the spirit of mutual-help in their living environment, 95 percent of the total respondents and 100 percent of the total leaders in improved kampungs had participated. In unimproved kampungs, 98 percent of the total respondents and 88.5 percent of the total leaders also had participated. This finding suggests that there is a strong element of community participation in the

mutual-help in the kampung study areas. In the following sub-sections, the two sub-hypotheses will be tested.

7.9.1 Public Participation in the KIP

The urban policies which are required to reach urban sustainability involve the inclusion of the public into the development process of their own communities. In most areas of the world today, community participation is seen as a basic element of the community development process. A recent study of self-help concluded that the community could only successfully participate in this process if they organised in an effective manner, if the leadership of such organisations actually reflected the wishes and desires of the community and if this leadership had the support of the authorities of the state (Choguill, 1993).

Indonesian democracy is based on consensus, which means that consultation with the people is very important in the decision making process. Participation can be categorised into three concepts: first, contributing ideas such as planning and design; second, sharing responsibility including labour, money and materials; and third, controlling and maintaining the projects. Moreover, participation brings about several gains, such as lower project costs because much of the labour is voluntary or part time, and a reduced dependence upon external resources.

In analysing the public participation, attention was directed to social relationships and the way people perceive and participate in community affairs. Residents' participation is realised mostly through resident organisations. These resident organisations can be temporary, dissolved after a specific goal has been achieved, or permanent and continue to function on an ongoing basis. Some are informal, where everyone is welcome and members may be well acquainted with each other; others are formal, open to selective groups within the community, but whose objective is to pursue the common interest of the entire community. The most typical of resident-participatory organisations is the formal LKMD organisation and the *Yayasan Sosial* or

Social Foundation is an informal organisations which are Non-Government Organisations (NGO's).

As mentioned in section 6.6.1, the LKMD is the village self-reliance council. It is concerned with social welfare activities and activities for youth, increasing incomes through co-operatives, and skill-upgrading projects. This organisation collects the aspirations and opinions from neighbourhoods through the leaders of RT and RW. These activities usually originate and are guided by technical field-workers from the various departments. In short, the function of the LKMD is, among other things, to co-ordinate social activities at the lowest level of government in an area. It is an activity in which local authorities go hand in hand with the community of people who live in these kampungs.

The *Yayasan Sosial* is a Non-Government Organisation (NGO). Its social activity is organised by some community leaders in the kampungs. This organisation usually aims at fulfilling the basic needs of certain groups, such as in religion, community workers and family welfare. For instance, the religion groups are concerned with collecting funds (in the form of cash or materials) from wealthier groups in the community. The aim of this social activity is to improve the welfare of poor people, and also to help the community in various community projects, such as building mosques/churches, building housing and others public services.

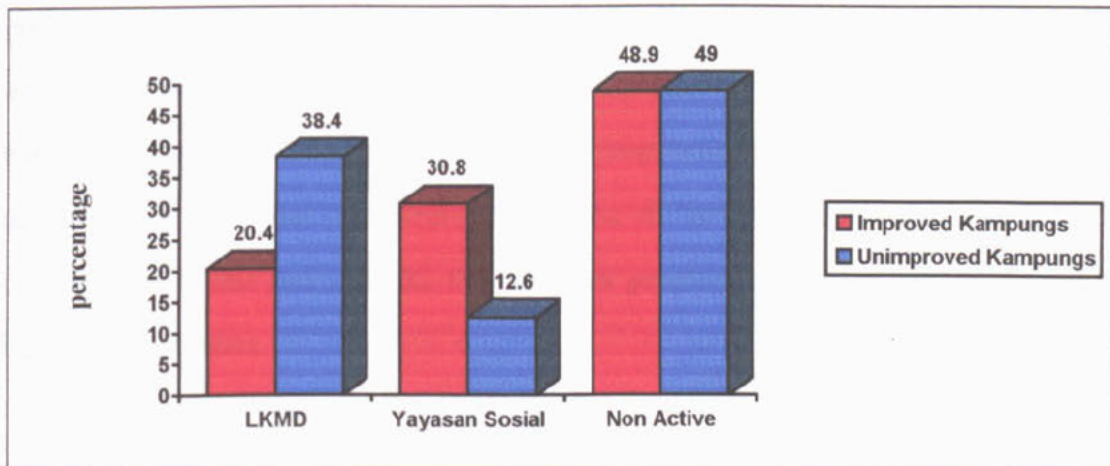
The residents in the kampung study areas are actively participating in community development. As mentioned earlier (see section 6.5.1), almost all respondents in the kampung study areas are proud of their communities and were involved in the KIP since the initial planning process, including implementation and construction, as well as maintenance.

However, when the respondents were asked about their involvement in the two organisation's activities (formal and informal), half of respondents in both improved and unimproved kampungs do not appear to be involved. Figure 7.5 shows the participatory activities in these organisations. According to UNCHS (1984)

participation is an end in itself. People have the right and duty to participate in the execution of projects such as planning, implementation and management, which are profoundly affect their lives. Also, participation is a means to improve results and a self generating activity which stimulates people to seek participation in other spheres of life.

It has been realised in this study that interviewers have the right to decide whether or not to participate in the LKMD or *Yayasan Sosial*. Their voluntary participation is considered relevant to this study.

Figure 7.5 Participatory Activities of the Respondents in the Organisations (percentage who participate)



Note : The total number of respondents in improved kampungs are 384 and in unimproved kampungs are 198.

Source: Field Survey, December 1992.

It is worth noting that respondents in the improved kampungs were more interested in being involved with the *Yayasan Sosial* (31 percent). On the other hand, more than one-third of the residents in the unimproved kampungs were more concerned in being involved with LKMD activities. However, about 50 percent of the residents are not involved in any of these organisations. When asked why they did not participate, most respondents stated that they were not interested, that they were unable to participate, or that they did not have time to participate in social organisations.

From this information, it may be pointed out that: first, less than half of the respondents of kampung communities actively take part in activities designed to improve their social and economic conditions. Second, the structural poverty that has entrapped the low-income groups creates difficulties for them in becoming involved in social organisation activities that are functioning in a formal manner. Therefore, the residents in the kampung study areas are more concerned with community participation that can directly result in the implementation of improvements rather than the planning process.

Involving the people means that their support is obtained to achieve consensus, thus increasing the project's chance of success. The people will not only see that projects are for them, but that they belong to them and will, therefore, become more involved in them. For instance, when a family starts improving their housing, this means that the same family has taken the first steps towards development. They have accepted the fact that the future should be different from the past and, as a consequence of this new attitude, they are now prepared to change their behaviour in many other respects.

Therefore, almost all residents in the kampung study areas could directly participate in the community development process and it is seen that public participation is easily enacted. The leaders in the kampung study can readily mobilise their neighbourhoods for public participation for the KIP and others urban projects. These findings support the sub-hypothesis that public participation in the KIP is easily enacted and mobilised.

7.9.2 Operation and Maintenance of the Projects

Operation and maintenance often present major problems in achieving project sustainability. In Jakarta, special attention is given to this issue. Arrangements are made for the operation and maintenance of the results of KIP. The community takes pride in keeping the footpaths and side drains clean, and also arranges for minor

repairs. Garbage is collected in receptacles that are regularly repaired. A box is provided for public toilets (MCK) and baths operate on a pay as you use basis. The nearest house will take responsibility for the utility and will pay someone to clean and maintain it.

Health clinics (PUSKESMAS) are built in larger areas and those that are densely populated. At the community and neighbourhood level, women actively organise family health and family planning clinics. Free immunisation and basic medicine is made available to the poor.

After a programme has been implemented, members of LKMD regularly visit the kampung to increase the awareness of health hazards in the daily living environment. Water and sanitation related issues are emphasised. The people are encouraged to plant and look after trees and shrubs in street borders (see Plate 6.3). They are also encouraged to improve their own on-plot facilities (house and infrastructure).

One example of the result of community participation is that the footpaths in the improved kampungs are made wide enough to accommodate pedestrians and cycles but too narrow for normal vehicular access. Some paths are made wide enough for emergency access but these are usually closed to regular motorised traffic. Most kampung dwellers cannot afford a private car and prefer to keep footpaths open as an extension of the limited living space inside the house. Women can be seen drying laundry on the pavement, children are playing in a safe environment and the noise and pollution of inner-city traffic are kept at a distance (see Plates 6.1 and 6.11).

Therefore, limited access by car means that these residential areas are less attractive for car owners. As a result, improved kampungs are not invaded by the rich, but remain available as a favourable and affordable habitat for low-income groups. The survey revealed that almost 75 percent of the total respondents in the kampung study areas had resided there for over 20 years (see Table 6.9), this is partly due to the fact that the improvement programme has been implemented on a large scale and it is

making positive contributions to their standards of living. For this reason, the great majority of residents would prefer to remain in the kampungs.

The LKMD plays an important role in kampung improvements. Their involvement in the KIP is channelled through the consultation and planning phase and their involvement in the implementation. LKMD monitors building materials, informally supervises construction activities and supplies food and drink to the workers. Their role is most prominent in maintenance and follow up. They sweep footpaths and keep drains free of rubbish, collect money to buy trees and other vegetation and plant these in borders along the footpaths.

Table 7.28 Type of Public Participation in the Operation and Maintenance of the KIP (percentage)

ACTIVITIES	IMPROVED KAMPUNGS			UNIMPROVED KAMPUNGS		
	A	B	N=90	A	B	N=52
Mutual-help among the neighbours	97.8	2.2	100.0	73.1	26.9	100.0
Involvement through the activities of LKMD	92.2	7.8	100.0	86.5	13.5	100.0
Community participation to sustain the KIP	96.7	3.3	100.0	67.3	32.7	100.0

Notes: **A** = Active; **B** = Not active.

Source: Field Survey, December 1992.

The descriptive analyses were verified when the leaders were asked to reveal the different ways through which the public participation occurs in the operation and maintenance of the KIP. The responses are combined in "active", and "not active", which can be seen in Table 7.28.

As is clear from this table, more than 92 percent of the residents in improved kampungs and more than three-fourths in unimproved kampungs reported that they participate actively in operation and maintenance of the KIP through mutual-help among the neighbours, through LKMD and community participation activities.

In summing up, the sub-hypothesis of the people are directly involved in the operation and maintenance of the project has been found to be true.

7.10 Conclusion

It has been suggested in the third hypothesis that the KIP has resulted in the minimisation of involvement of central government in the local kampung planning process, and has led to success in KIP in part because of community participation in mutual-help. Based on the discussions above, this study has suggested that the hypotheses should be accepted.

This study suggests that the central government has reduced its influence over the implementation of KIP and the urban development process through supporting the leaders and the residents' activities in planning, implementing, maintaining, and monitoring the process of urban development. Only limited services were provided by central government such as funds, resources and training. From the survey conducted, it has been shown that the majority of the households and the leaders reported their satisfaction with their relationship and with what they were expecting from the Kampung Improvement Programme.

A vehicle for community participation in kampungs is the umbrella institution of LKMD and *Yayasan Sosial*. The residents are encouraged to organise themselves during the preparation process and to create a forum for the exchange of ideas within the community in LKMD. Both the leaders and the residents contribute to the success of the projects; both commit time, labour and funds. The planning and implementation stages are closely monitored by community leaders and local government officials.

Their satisfaction is not only in terms of co-ordination and integration of government and community, but also in terms of the spirit of mutual-help including operation, maintenance and public participation in the KIP. This satisfaction in community participation and the development process is only possible because of the success of the KIP and urban development process in this environment. However, the satisfaction of mutual-help in unimproved kampungs is quite high compared with improved kampungs in terms of public participation. This condition is understandable

in that the unimproved kampungs have yet to be improved by KIP and inhabitants want improvement of their kampungs as soon as possible.

Therefore, when residents participate in the planning, implementation and management of the urban development services, the results are far better than when an outside agency carries out a programme using a public work approach, without any input from the local community.

SECTION FOUR

DECISIONS ON THE HYPOTHESES

This last section presents finding of decisions on all hypotheses and a summary of this chapter. In this chapter, results of the analysis of the comparison between the improved kampungs and the unimproved kampungs were presented in order to assess the impact of KIP in Jakarta on sustainable urban development. The differences were shown to be significant. Not only were physical and environmental differences analysed, but in social and economic terms, the relationship shown implied a heterogeneous social and economic composition of the urban kampungs of the poor. From the above discussions the significant findings of the analysis in this chapter are as follows:

1. The objectives and strategies of the KIP have been successful in bringing about improvements in the living conditions and quality of life of the households in the improved kampungs. The changes were verified through the improvement of housing conditions, roads/paths, sanitation and secure livelihoods which have the effect of leading to better human settlements, minimisation of environmental degradation and a raising of standards of living.
2. This study has found that there is a direct relationship between the number of the people with low incomes and their occupations and level of education in both

improved and unimproved kampungs. Most of the settlers in the kampung study areas are employed in the informal sector and educated only to the primary level.

3. The kampungs have attracted a large proportion of migrants from outside the region. About 75 percent of the settlers in the kampung study areas are from outside the city of Jakarta which are originally from rural areas or smaller cities. The strongest "pull" factor to Jakarta and to the kampungs is the economic factors associated with job opportunities. The "push" factor was the lack of job opportunities in their previous places of residence.
4. Most of the people in the kampung study areas have taken part in many of the government initiated programmes or activities. Often they were aware of the availability of these programmes and the leaders were active in spreading information about the programmes. This study found that public participation in the kampungs studied is a key factor for the success of Kampung Improvement Programme. Through the mutual-help of the community, KIP operation and maintenance is becoming a community responsibility.
5. The significant relationship between improved and unimproved kampungs indicates that the community participation in urban service delivery has offered the possibility of employment to low income groups. Even a very small subsidy to incomes by the government can create many earning opportunities for low income urban communities.
6. The central government involvement in the implementation of KIPs is mainly due to the availability of leadership and efforts by the residents. A bottom-up planning structure has developed since Repelita III. The LKMD is a formal organisation that can be used by the community as a basis for participation in planning, design, implementation, monitoring, maintenance and post project evaluation of the KIP. Therefore, the intention of central government programmes has been to reduce their involvement. The delivery of services at

the community level is still a central government responsibility, as are provision of funds, resources and training.

7. The last important findings and one of the most significant of this research, is the scope of potential improvements which can result from KIP and its consistency with the sustainable urban development. The results of KIP in the improved kampungs has revealed improvements in standards of living and quality of life compared to situation in unimproved kampungs.

7.11 Summary

The aim of this chapter has been to test the research hypotheses of sustainable urban development in the Kampung Improvement Programme. It has also attempted to analyse the impact of the KIP in Jakarta on better living conditions of the dwellers. The test has focused on three aspects of the impact of the KIP: the impact on the socio-economic situation in the kampungs; the impact on physical and environmental improvement, and the impact on institutional and community participation.

The first main hypothesis suggested that the kampungs are inhabited by low income groups and the people in kampungs have migrated from outside the region of Jakarta. This hypothesis has been justified and accepted by this study. This study revealed that more than two-thirds of the settlers in the kampung study areas were low income earners with low levels of education. The analysis of occupation suggested that improved kampungs have experienced more employment sector improvement than unimproved kampungs. Most of the migrants who came to Jakarta were from outside the region and more than three quarters of them were from Java island. Only about a quarter of the sample originated from within the Jakarta region.

The second main hypothesis suggested that the KIP is consistent with the concept of sustainable urban development and that the main purpose of the KIP is to improve the physical infrastructure and the living conditions of the people who live in kampungs. This hypothesis has been examined through five sub-hypotheses:

- (i) The programme has improved the poor's access to secure livelihoods,
- (ii) The development process has improved the satisfaction of basic human needs,
- (iii) The KIP has significantly improved household living conditions,
- (iv) The improvement of kampungs is designed to result in better human settlements, and
- (v) The improvement has led to a minimisation of environmental degradation.

The findings of this study has also demonstrated the validity of the second hypothesis together with the five sub-hypotheses. The most significant findings of this analysis is that with an overall improvement in the conditions of infrastructure and services in the improved kampung areas, a large majority of the settlers were generally satisfied with their living conditions, human settlements and standards of living, and, as a result, intend to remain in the kampungs.

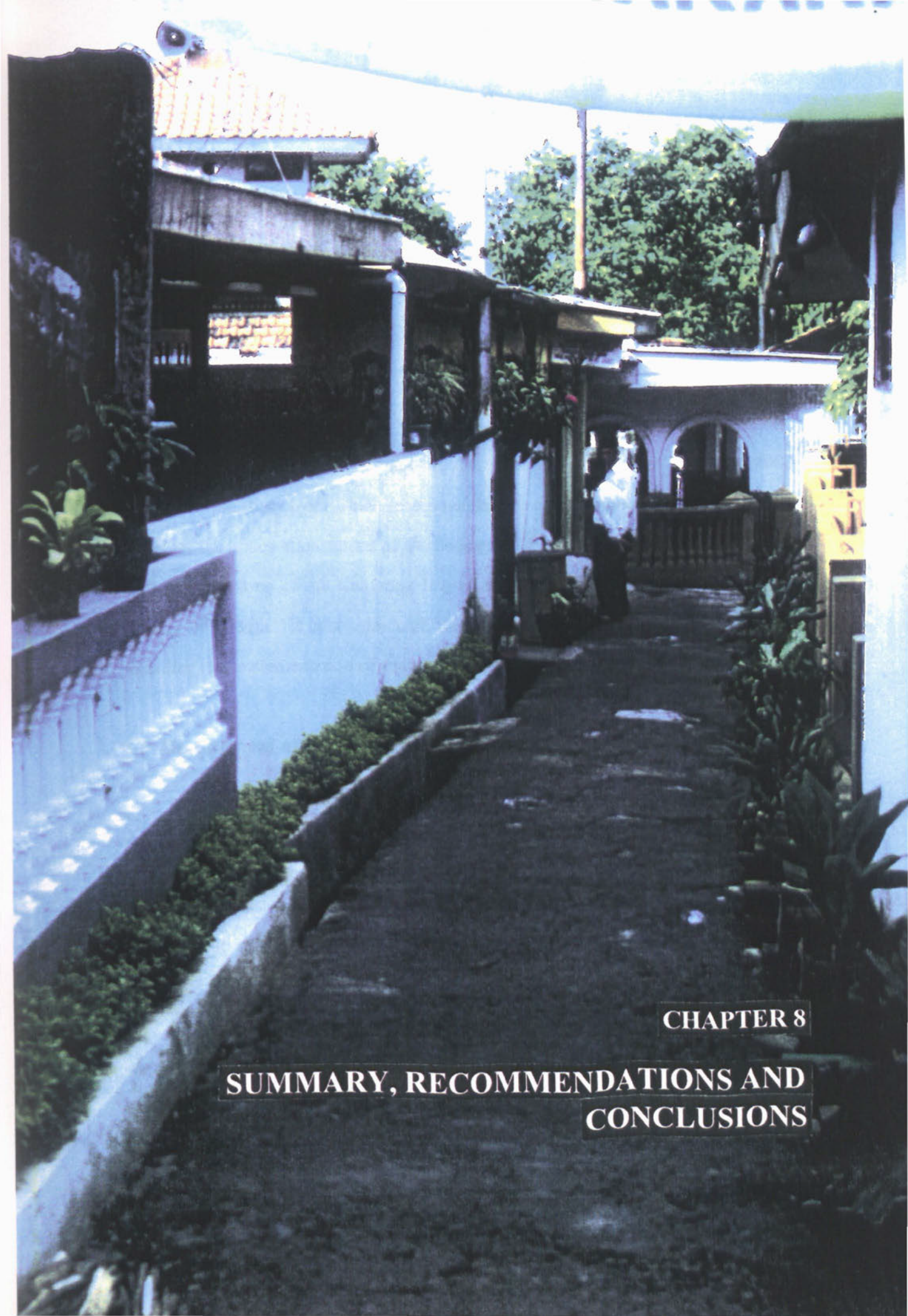
The third main hypothesis suggested that a national policy in KIP is to minimise central government involvement in the local kampung planning process in a long run and the success of KIP is dependent on the spirit of community participation in mutual-help. These hypotheses have been justified and accepted by this study. With the experience of KIP, the central government has minimised its involvement in implementation. Only funding and budget resourcing are the responsibility of the government. Others responsibilities are the function of the leaders and the communities. Public participation has improved the ability to operate and maintain the results of the KIP.

From the above analysis and discussions in Section One, Two and Three, the central argument of this research, that there are significant differences and relationships between improved and unimproved kampung study areas in Jakarta, is established. It has been shown that, through the implementation of KIP in Jakarta, the programme has had a positive impact on the settlers, especially in improving their quality of life and the standard of living of people in kampungs who are genuinely low income earners. The

discussion in this chapter also suggests that the role of LKMD and *Yayasan Sosial* in social activities is extremely important.

From the interviews with the Lurahs, leaders and staff of BAPPEM P-MHT, it was learned that public participation in the implementation of the project has affected significantly the results of the KIP. Therefore, these findings suggest that KIPs have contributed to the urban development programme by improving and up-grading these poor settlements. With respect to this programme, which leads to major improvements in the quality of life and standards of living, the conclusion seems to be that KIP forms the first step toward sustainable urban development.

Therefore, important results derived from this hypothesis testing section can have a major implication on the development policies affecting the expansion of the sustainable urban development in Indonesia. These policy implications may also apply to other developing countries facing and/or contemplating a similar course of urban development. The final chapter of this thesis is devoted primarily to a review of the methodology adopted by this research, a summary of the key findings of this thesis, and a discussion of the policy implications arising from the results of this investigation which is to sustain the quality and standards of living of urban settlements in Indonesia, and possibly other developing nations.



CHAPTER 8

**SUMMARY, RECOMMENDATIONS AND
CONCLUSIONS**

CHAPTER EIGHT

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

8.1 Introduction

This last chapter summarises the discussions in the previous chapters and the findings of the study from which recommendations and conclusions are drawn. It also examines the policy implications of the findings of the study with particular attention to the implementation of the Kampung Improvement Programme in the development of the city of Jakarta. It concludes with the identification of issues for further research regarding the implementation of sustainable urban development in Indonesia.

8.2 Restatement of the Research Strategy

To summarise the whole thesis in this last chapter is a difficult task. To deal with this, the author would like to restate the research strategy and refer to the objectives of sustainable urban development (see Chapter Two) which marked the beginning of an era of intensive urban development planning in Indonesia and the objectives and the hypotheses of this research.

The main aim of the study has been concerned with an examination of the various issues related to urban settlements in kampung areas in Jakarta and to bring them to the attention of politicians, decision makers and planners who are involved in delivering, planning, implementing, monitoring and evaluating urban growth (see Chapter One). Specifically, the purposes of the study have been:

- (A) to review the approaches of urban development planning, analysing the socio-economic characteristics that result from KIP;
- (B) to examine the sustainability of the KIP in Jakarta, analysing the physical and environmental characteristics of urban growth that are taking place in kampung areas;
- (C) to identify a number of specific implementation issues such as the institutional framework and community participation that have positively affected urban systems; and
- (D) to study KIP in terms of its potential as a basis of sustainable urban development and as a means of improving quality of life.

It has been understood that the underlying purpose of all development programmes including KIP, is to contribute to the recipients' standard of living and quality of life and to promote the restructuring of Indonesian society as prescribed by the Long Term Development Plan (see Chapter Three). In essence, the notion of restructuring society implies the creation of new opportunities or opportunity structures for citizens who are handicapped in improving themselves socially and economically. Development authorities are a part of the social engineering process implied in the concept of restructuring.

8.2.1 Data Collection

A case study approach has been used in this study. Relating to the data collection, a household survey and a leadership survey approach have been used. Three locations of improved kampungs (Kelurahans Menteng, Kali Anyar and Pela Mampang) and two locations of unimproved kampungs (Kelurahans Sunter Jaya and Ujung Menteng) were selected for examination. The selection of location areas was based on the nature of the kampungs as urban kampung areas, the structure of administrative units given that village administration is the lowest administrative unit in the Special Territory of Jakarta, and the selection criteria of KIP which are used by

BAPPEM P-MHT in Jakarta. Simple cluster and random sampling have been applied in this study. A total of 582 heads of households were interviewed, consisting of 384 respondents in improved kampungs and 198 respondents in unimproved kampungs. A total of 142 leaders were interviewed, consisting of 90 leaders in improved kampungs and 52 leaders in unimproved kampungs.

This survey was supported by in-depth interviews with the Lurahs of every Kelurahan and staff of BAPPEM P-MHT Jakarta. The rationale behind this was to identify issues relating to the sustainability and the continuity of the KIP.

8.2.2 Chapter Organisation

The work has been organised in eight chapters of which Chapter One, Two and Three provided general, and essential background materials allowing the research investigation to be set in the framework of sustainable urban development and in the KIP context.

In Chapter One, the research problem was introduced by discussing the relationship between sustainable development and urban development with reference to the understanding of the concept of sustainability and development of their human settlements.

Chapter Two constituted the main literature search on the theories and concepts of sustainable development, urbanisation, human settlements, community participation and urban development. The conceptual explanations were reviewed mainly to give a lead in the exploratory area of sustainable urban development.

The national development policies in Indonesia were discussed in Chapter Three. This chapter highlighted the historical and important factors from the Dutch colonial and post-independent periods which have shaped the patterns of urbanisation and urban settlements in the country. In particular, the introduction of the New Era Policy and creation of urban kampungs in the capital city after the race riots of 1965 which had resulted in the rapid urbanisation of Indonesia in recent years were

examined. Against this background, this chapter surveyed the emergence of the Kampung Improvement Programme policy and objectives and examined the roles of agencies and infrastructural investment in the national KIP strategy.

The discussion of urban development in Jakarta in Chapter Four reveals that the urban development policy was initially concerned with the process of the growth of the city, in terms of formal development but also the informal development which was of the kampung type. Urban development was planned and implemented by central and local government in terms of the Structural Plan of Jakarta 2005. The local government of DKI Jakarta has attempted to overcome the problems of past kampung development and to prevent future kampung type settlement by implementing a KIP-MHT (Muhammad Husni Thamrin) since 1969. The aim is to improve the quality of life of inhabitants and to improve the urban efficiency of the city of Jakarta.

Chapter Five described the research strategy, the selection of the case study areas and the methods of data collection and analysis. It included a discussion of sampling techniques and the design of the questionnaire which was designed to discover the socio-economic characteristics of the households and the attitudes of the leadership in the kampung study areas. Chapter Six described the social, economic and physical characteristics and background of the kampung study areas of Jakarta.

The impact of the KIP on the settlers in the kampung study areas and their attitudes toward sustainable urban development were analysed in Chapter Seven. Given the fact that all hypotheses had been tested in this chapter and generally found to be true, policy implications can be extracted from the results obtained. To do so, it was necessary to relate the results obtained from this research to the theoretical context adopted for this study. From the analysis it had been shown that the KIP had led to more significant improvements in the improved kampungs than in the unimproved kampungs. Therefore, the benefits generated through improvements of living conditions and standards of living have led to improved quality of life, particularly in the improved kampungs.

The final chapter of this thesis in Chapter Eight provides a summary of research findings and considers some policy implications and suggests areas for further research. This makes it possible to formulate policies and strategies and make recommendations for sustainable urban development.

8.3 Summary of Discussion

The principal objective of the study has been to analyse the impact of the Kampung Improvement Programme on the residents and the people in the surrounding urban kampung areas in Jakarta, and to test whether the programme promotes sustainable urban development. Given the fact that the hypotheses had been examined and generally confirmed in the previous chapters, the summary of discussion will describe the major findings of the research in terms of general findings and specific findings. This will be done in the following section.

8.3.1 General Findings

From the discussion in the previous chapters, the general findings of the research on the Jakarta urban development projects and particularly in the Kampung Improvement Programme can be summarised as follows:

- (1) Since Independence and especially in the 1960s, Indonesia experienced considerable urbanisation, particularly on the densely populated island of Java (see Chapter Three). Furthermore, the largest cities showed the highest growth rates and of these, Jakarta has been the major destination of rural-urban migrants. This growth of the cities resulted in the uncontrolled, spontaneous expansion of urban kampungs, which were densely populated, low-income residential areas with predominantly temporary dwellings and very poor facilities. This settlement process occurred largely outside the control of the state and the production of housing in such areas took place through a self-help system and through the traditional, informal residential construction sector.

- (2) Urban kampungs are typical 'self-help' housing neighbourhoods where family decisions and capacity to invest in construction dominates the character and speed of development. In the past, no administrative regulation to influence these activities was likely to be effective. Settlements in the kampung study areas are predominantly inhabited by migrants to the city. The proportion of local residents still living in the area is less than one third of the total. The majority of migrants have originated from rural areas and from outside of the Jakarta region.
- (3) The implementation of urban development projects in Jakarta has benefited the target population socially and economically as expected in the Long-Term Development Plan. The Kampung Improvement Programme is presented as a major effort by the state to address the needs of the urban poor. KIP, through its settler settlement selection system (see Chapter Five), has successfully chosen the genuine urban kampungs for participation in the human settlement schemes. This study has shown that the improved kampungs have emerged as true successes and have improved the living conditions and quality of life of the settlers.
- (4) It was found that unlike many low income settlements, most of the kampung residents in Jakarta are house owners. The majority of heads of households have large families. Monthly income of the respondents reveals that the majority of the population in the kampung study areas are low income earners. Comparing the situation with the country as a whole, where 15 percent of the total population live under poverty, it can be claimed that the low income residents in the kampungs studied earn incomes which place them above the national poverty line, but only just.
- (5) Observation of employment patterns reveals that the urban kampungs of Jakarta are inhabited by heterogeneous occupational groups. The majority of the low income groups were employed in the informal sector of the city and made positive contributions to Jakarta's economy. It was observed that the majority of

respondents in improved kampungs have educational attainment to secondary level.

- (6) The comparative study between improved and unimproved kampungs has identified the differences that result from the KIP implementation. Yet occupation-wise, even the improved kampungs are largely oriented to the informal sector. In terms of education level, they still achieve no more than a low level of primary education. Yet within improved kampungs in particular, they have managed to reach income levels close to those of the middle income earners. In the unimproved kampungs, the living conditions have started to improve, even though the KIP has not yet been implemented. This is especially true in terms of quality of life, and this on the whole could lead to an emergence from poverty and decreasing of environmental degradation in such settlements.
- (7) Moreover, kampungs are increasingly becoming integrated within their respective cities. They are no longer self-contained semi-rural entities. More and more, the majority of kampung resident's activities like employment and income-earning, shopping, religious worship, entertainment, recreation, and higher education, particularly secondary education, are carried on inside and/or near the kampung.
- (8) The function and role of local leadership in the urban kampungs in the urban services delivery system has satisfied the residents. Their satisfaction is not only in terms of co-ordination and integration of government, leadership and community, but also in terms of the spirit of mutual-help including planning, implementing, operating, maintaining and monitoring in the KIP.

8.3.2 Specific Findings

The main aim should be: 'To achieve sustainable development which meets the needs of the present without compromising those of future generations'. This provides two purposes for the process. The first is to improve the quality of life as it relates to the environment such as improving physical conditions and surroundings, health and

safety, social activity and accessibility. The second is to minimise environmental degradation and achieve sustainable economic activity. Therefore, the specific findings of the research on the sustainable urban development are as follows:

- (1) The first important finding in this study with respect to the main goals in the physical and environment improvement, is that the KIP is consistent with the concept of sustainable urban development. It has been demonstrated that the poor have access to better and more secure livelihoods and the urban development process satisfies basic human needs. The improvements were verified through the improvement of housing conditions, roads and paths, sanitation and drainage system, health services and have an effect on improving physical, social and economic conditions of human settlements and lead to a minimisation of environmental degradation. This also related to the goals and objectives of sustainable urban development in that those associated with the meeting of basic human needs have included help for the urban poor, the need for self-reliant development, the issues of health control, appropriate technologies, clean water and shelter for all, and the notion that people centred initiatives are needed (Tolba, 1987).
- (2) Improving the quality of life is dependent upon achieving sustainability over the long term, since this sets the conditions of quality. The improvement of infrastructure and services as a result of KIP had given the settlers in the improved kampungs access to near modern standards of living. It had been concluded in this thesis that in terms of conditions of human settlements, the improved kampungs experienced a better standard of living and a higher quality of life than the unimproved kampungs. Therefore, sustainability will be achieved when all operational objective limits, such as physical surroundings, physical conditions, health and safety, economy activity and energy use, and sustainable impacts, are fulfilled and maintained in a stable condition.

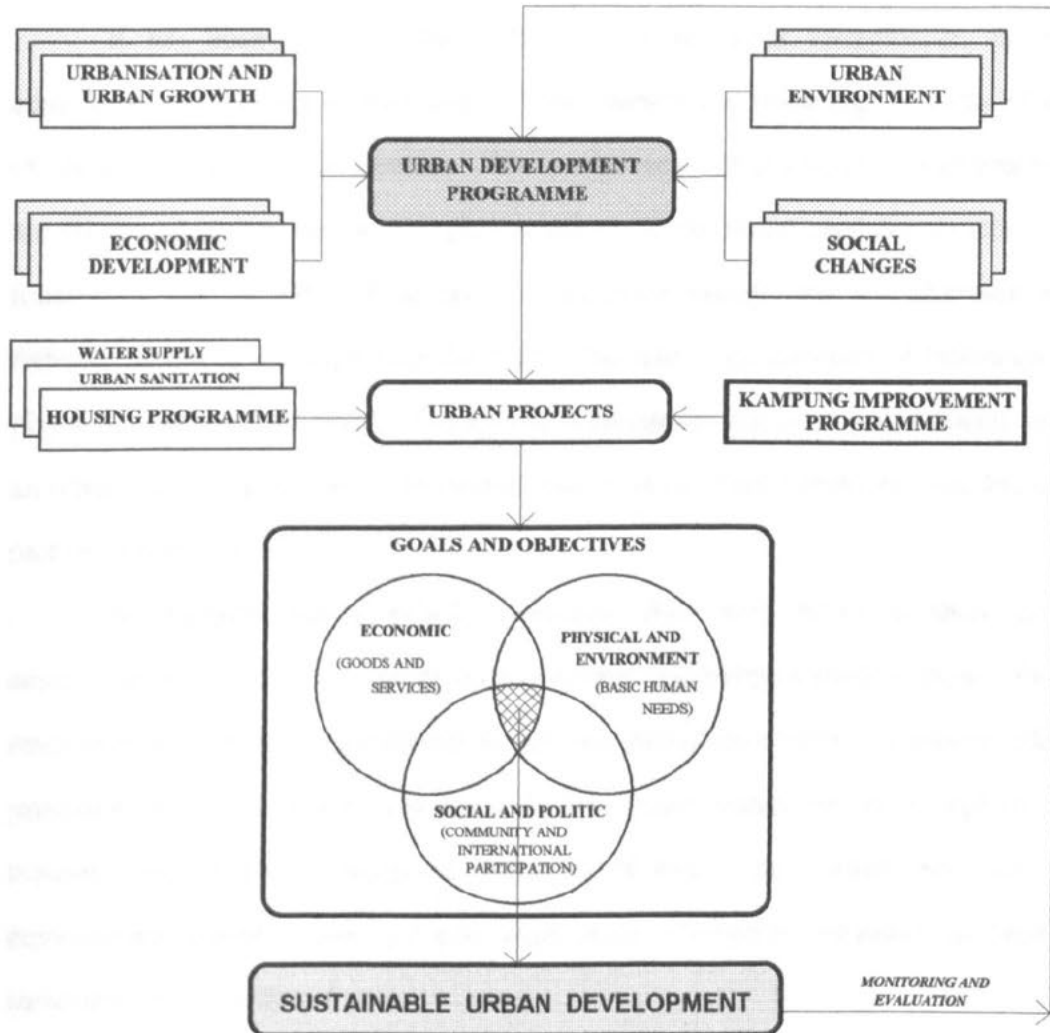
- (3) The implementation of KIP in improving social facilities has had an impact which will also be felt by future generations. The general findings in this study revealed that the improved kampungs have contributed indirectly towards increases in the level of education of settlers. For this reason, the younger generation in kampung areas have received a better education which may lead to better opportunities of jobs. The capacity for education in every urban kampung in Jakarta can be considered as a valuable asset to the region, on the assumption that a better educated labour force is more efficient, a factor which might enhance future development.
- (4) If sustainable urban development is to have any meaning at all, it must be defined to include the minimisation in the use of non-renewable resources, the achievement of the sustainable use of renewable resources, staying within the absorptive capacity of local and global waste absorption limits and meeting basic human needs (Hardoy, Mitlin and Satterthwaite, 1992). The first of these is the way goods and services are produced within such a framework in economic development. Production in the kampung study areas is primarily in the informal sector. The sector is one which is not wasteful but is efficient in the use of those resources which it does exploit, including energy, minerals, land and natural resources. The KIP approach is based on the concept of improving the well being of the urban poor by upgrading their physical environment and increasing their access to modern municipal services. This also includes the generation of livelihoods conducive to both sustaining and improving the well being of settlers.
- (5) Moreover, self-reliance and self-help undoubtedly become increasingly important elements of any strategy toward urban sustainability, such as the inclusion of the public into the development process of their own communities. In most areas of the world today, community participation is seen a basic element of the community development process. Choguill and Silva-Roberts (1993) state that the community could only successfully participate in the development process if

they are organised in an effective manner, if the leadership of such organisations actually reflect the wishes and desires of the community and if this leadership has the support of the authorities of the state. It has been revealed in this study that the spirit of mutual-help (*gotong royong*) in kampung study areas has given rise to public participation among the government, leaders and residents. Many physical and social facilities have been built by this community participation, such as mosques/churches, community halls, MCK, and others public services. As a result, the residents in the kampung study areas are more concerned with community participation that can directly result in the implementation of improvements rather than the planning process.

- (6) The community improvements that are made are those that the community wish to be made, not those that are determined by some remote government official in either a provincial or national capital. This is discovered in the implementation of KIP, which is designed to be carried out by local government with resident responsibility, where the central government only serves as the technical advisor and provides the initial financial assistance.
- (7) Finally, sustainable urban development must be adopted at the international level because cities are linked not only within a nation, but internationally. The experienced of KIP in Indonesia has shown the involvement of the foreign development agencies in aiding the physical, social, economic and environmental improvements, agencies which include, among others, the World Bank, UNEP, UNICEF and ADB.

In summing up the two major findings in these discussions, Diagram 8.1 seeks to illustrate that policies oriented towards sustainable urban development can be based on principles similar to those contained in the Kampung Improvement Programme, which can form a basis for urban development programmes and policies in Indonesia.

Diagram 8.1
Policies to Achieve Sustainable Urban Development in Indonesia



Source: Summarising Diagrams 2.1 and 2.2, and a result of general and specific finding of section 8.3.

8.4 Some Policy Implications

The Kampung Improvement Programme (KIP) has been in existence for more than two decades and has improved the standard living conditions and quality of life of settlers. This research has, however, revealed some weaknesses of the programme which indirectly undermines the concept of sustainable urban development. Therefore,

there is the need for more effective policy measures to improve the performance of the programme.

It has been revealed that slight, sometimes even insignificant, differences actually exist between the improved and the unimproved kampungs in terms of quality of life and infrastructural facilities. The programme lacks effective coordination and monitoring at various levels of implementation. There is the need for an urban policy framework that would address these weaknesses taking into consideration all the different actors or participants in the KIP. The central government of Indonesia could play a key role in this regard. The role of both central and local governments creating an urban policy framework in Indonesia, like in most Third World nations, has a track record of frequent failures.

As Satterthwaite (1992a:2) mentions, they have failed in three essential environmental actions: to enforce environmental legislation including those related to environmental health, occupational health and pollution control; to ensure adequate provision for water supply and for solid and liquid waste collection and treatment systems; and to ensure adequate provision of health care which not only treats environment-related illness but also implements preventive measures to limit their incidence and severity.

The observations, as they apply to Indonesia, are analysed in the following section.

8.4.1 Policy to Improve Water Supply, Sanitation and Waste Disposal

The findings of this analysis concerning the effectiveness of KIP should be strongly considered for integrated development and upgrading of all infrastructure components if satisfactory living conditions are to be achieved and social and economic development is to be promoted for the inhabitants in kampung areas. The study points out that dwellers in the kampung study areas, who are predominately low-income earners, need a reliable supply of safe drinking water, as well as water for bathing,

laundry and defecating. Drains are needed to take away waste water and, where possible, to take away excreta. Sanitation facilities such as leaching pits, septic tanks and public communal hygiene areas, such as MCK (*Mandi Cuci Kakus* or Bathing, Cleaning and Toilets) are needed where water-borne sewerage systems are too expensive. They also need safe paths for pedestrians and wide roads for traffic, regular collection of garbage, and social services such as health care.

The KIP has generated some improvement in the physical infrastructure in urban kampung areas. However, there are still some problems which remain to be solved. Therefore from the analysis of KIP in the kampungs studied, the key policy on infrastructure focuses on measures to improve the water supply, sanitation and waste disposal, which would minimise the environmental degradation. Some of the possible policy measures are discussed below.

Water Supply. Jakarta is a coastal city with serious problems of subsidence resulting from the drawing of too much water from underground aquifers and from saline intrusion into such groundwaters. Especially in urban kampungs many households can no longer drink the water from the wells they use because of saline intrusion. The research revealed that there is still a lack of readily available drinking water for households in urban kampungs and the city of Jakarta as a whole. Limited quantities of water mean inadequate supplies for washing and personal hygiene, and for washing food, cooking utensils and clothes.

The most common source of water for settlers in kampung areas is groundwater. Water is obtained from hand-dug shallow wells or by pumping from a deep well. In fact, there is a serious problem of salt water intrusion and water pollution resulting from extensive domestic uses of groundwater. Consequently many residents use water drawn from shallow wells only for bathing and laundry, if they are not using nearby rivers, and buy from water vendors (see section 6.4.3, page 190). However, even in the KIP areas, the most important factor in improving the supply and distribution of water is the efficiency of water management from central government,

specifically the PAM (*Perusahaan Air Minum* or Water Supply Agency). The major problem in supplying pipe-borne water to the urban kampungs and the city as a whole is that central government still does not have the necessary finance to construct large capacity water storage and distribution facilities.

The research findings, therefore, suggest that the basic policy for the development of the water supply in kampung areas should be to consider strong coordination between KIP and PAM. Immediate action should be taken to implement this policy to increase the capacity of the water supply and distribution network and to give priority to drinking water services in densely populated kampungs and/or residential areas and those where groundwater conditions are not good. One possible solution to the problem is the provision of public taps or public ground water as a temporary plan. Alternatively, installing water pipes in homes or in household yards is a good investment. Regular supplies of pipe-borne water to the homes would mean that the inhabitants in kampung areas would no longer have to fetch and carry large volumes of water from standpipes and buy from the vendors. A readily available water supply and the means to heat it makes laundry, maintenance of personal hygiene and the execution of many household tasks easier, more convenient and less time-consuming.

Sanitation. The findings of the study suggest that in the urban kampungs which are densely-populated, residents have a strong desire for improved sanitation. Removing and safely disposing of excreta and waste water is a critical environmental health need. In the KIP areas, however, no drains exist to take away waste water and excessive rainwater creates waterlogged soils and stagnant pools which transmit diseases. Pools of standing water can convey enteric diseases and provide breeding grounds for mosquitoes which spread filariasis and malaria.

Septic tanks are now very common in Third World cities in low-, middle- and high-income areas (Sinnatamby, 1990:131), including in Indonesia. The conventional, water-borne sewerage system is by far the most convenient sanitation system.

However, it is very expensive and may cost seven to ten times as much as simple, but equally hygienic, latrines or septic tanks. The septic tank is a watertight settling tank to which wastes are carried by water flushing down a short length of pipe. Solids settle on the bottom of the tank where they are digested anaerobically while the effluent overflows to a drain field or sewer system (Ibid:143).

In Jakarta, septic tanks serve about 68 percent of the population with 17 percent relying on pit latrines or toilets which discharge directly into ditches or drains, 6 percent use public toilets (generally with septic tanks) and about 9 percent have no formal toilet facilities (DKI Jakarta, 1987). The research found that in the kampung study areas, the majority of households have to rely on septic tanks for the disposal of human waste. The remaining residents have to use communal septic tanks serving two or more houses, or the MCK (*Mandi Cuci Kakus* or Bathing, Cleaning and Toilets) implemented as a result of the KIP (see section 7.6.2, pages 250-251). Unfortunately, no system has been developed to keep the septic tanks or latrines clean, so a majority of residents object to having an MCK nearby due to the bad odour. Shortage of water during the dry season also contributes to the problems associated with the use of MCK sanitation as well.

Therefore, these findings suggest that a policy is needed in urban kampungs to improve the supply, use and maintenance of septic tanks, latrine pits and public services such as MCK. Most household or community systems for excreta still need a regular and reliable system to empty them. However, this is not a part of the KIP. Perhaps it would be more rewarding to provide a reliable disposal that would use the waste materials as compost for agricultural purposes. This is a task that can be taken on by the Department of Public Cleansing (*Dinas Kebersihan*) of Jakarta in collaboration with the community.

Waste Disposal. Solid waste disposal has been a long term problem in Indonesian kampungs. Public waste bins were installed to help solve this problem. However, this has become one of the less successful KIP development activities or

strategies. Unfortunately, provision of public solid waste bins under the KIP has not substantially changed the solid waste disposal habits of the majority of kampung residents: people continue to throw rubbish along the banks of streams, in gullies, and on vacant lots (see section 6.4.5, page 197).

The findings of the study suggest that the KIP should provide more information about safe garbage disposal and the advantages of clean environmental conditions in the kampungs. This should be incorporated into the special training programme for community leaders (RW, RT and LKMD). Residents in kampung areas and other parts of the city of Jakarta should also be involved in the training and information sharing process. The training should aim at teaching residents how to dispose solid waste safely using household rubbish container or bins approved for the KIP. Local communities should also be trained to maintain and repair public garbage collection kits or facilities as part of the spontaneous mutual-help (*gotong royong*). Therefore, in the future all residents of kampung areas and community leaders would have a good understanding of clean environmental issues and would participate significantly in environmental management.

Lack of coordination among community leaders (RW and RT), KIP projects and local authorities (see section 6.4.5, page 198) is the major problem associated with rubbish collection from urban kampungs and delivering it to the city disposal site on a regular basis. The findings suggest the need for a strengthening of the coordination between KIP projects and local authorities, specifically the Department of Public Cleansing (*Dinas Kebersihan*) of Jakarta. *Dinas Kebersihan* of Jakarta takes over the maintenance of the kampungs after the completion of KIP. LKMD and *Yayasan Sosial*, as participatory organisations of the residents in the kampung areas, can also play an important role in helping devise innovative strategies for waste disposal, such as a spontaneous *gotong royong* directed towards cleaning up the garbage thrown in vacant lots. Door to door household waste collection services also have to be improved.

Furthermore, lack of transportation facilities and difficulties in finding proper sites for solid waste disposal is a central problem of local government of Jakarta. The findings of the research suggest that the basic policy should be to increase transport services for solid waste disposal by means of the environmental improvement programme, with inter-agency coordination and with public participation. There is a need to adopt a more effective strategy to remove waste especially in urban kampung communities with limited municipal budgets. For instance, paving roads and paths leading to and within urban kampung settlements can reduce waste collection costs while, in turn, improved waste collection ensures and drainage can lessens water pollution. Another policy measure is to develop efficient solid waste disposal techniques, such as land reclamation techniques along the sea shore and sanitary land fill sites which have very little adverse environmental impact.

Furthermore, although, it is not part of KIP, the findings of the analysis suggest the benefits of the promotion of a programme that would reduce wastes and recycle materials. These could become central to the needed policy on solid waste management strategy, which would aim to reduce resource consumption and land, water and air pollution. As Elkin, McLaren and Hillman (1991:174-175) mention "the most desirable solid waste management goal is to reduce the amount of waste generated, then to reuse the material for the purpose for which it was originally intended. ...to dispose of the remainder by landfilling or other approved method". The undertaking of this is the responsibility of *Dinas Kebersihan*. It has to promote composting of waste disposal whereby the organic and synthetic recyclable would be separated and the organic wastes composted. This programme can promote sustainable urban development and encourage the practice of urban agriculture.

Furthermore, Hardoy, Mitlin and Satterthwaite (1992:190) have stated that there are three key policy areas to secure both development and sustainability of local and municipal government. These are relevant to the kampung study areas and the city of Jakarta as a whole:

- (1) Respond to citizen demands for a safe and healthy living and working environment, which includes ensuring the availability of shelter and the provision of basic infrastructure and services, for example; and to ensure there is an effective legislative and regulatory system to protect dwellers of kampungs from exploitation by landlords and employers;
- (2) Manage urban growth to promote minimal use of environmental capital while meeting social and economic goals, for example, provide for kampung generated wastes to be handled effectively; and
- (3) Identify and support the development of new economic activities which enhance both the urban centre's economic base and its environment. If incomes rise, then money can be productively invested in kampungs.

However, local and municipal governments may well fulfil these three roles while no modifications are made to ensure that the consumers and producers within their boundaries contribute to sustainable urban development.

Lastly, the findings of the analysis also suggest that the public good is best served when water, roads, paths and drainage are installed simultaneously. First, this brings the greatest improvement in health. If only water supply is improved, this may increase health problems as waste water forms stagnant pools which then serve as breeding grounds for insects which spread diseases. Second, there are large cost savings if pipe-borne water, roads, paths, and drainage systems are installed together, along with the paving of roads and footpaths.

8.4.2 Policy for Central and Local Government

The kampung study areas in Jakarta have heterogeneous population as a result of in-migration from region all over Indonesia. The improvement of urban kampungs by KIP in areas with homogeneous populations, such as in Bandung, Surabaya, Medan, Ujung Pandang and others big cities in Indonesia, is expected to be more successful. In this respect, KIP has shifted its focus from metropolitan and big cities to the smaller

cities in the whole of Indonesia where villages have become centres for accommodating the growth in city population and may become the urban kampungs of the future. Therefore, the findings of the study support this movement as an aspect of the public works approach towards the improvement of kampung areas which is now firmly established within the urban development policy of the Indonesian Government (see section 3.4.3, page 71). In the last Five Year Plan (Repelita V) some 200 cities were targeted to receive seed capital as a central government grant for urban projects, covering 60 hectares in small cities and 100 hectares in large cities. The purpose of this transfer payment was to provide an incentive to local governments for initiating KIP in their jurisdiction and to develop the institutional framework and professional manpower to continue the programme from local financial resources.

However, the functions and implementation of BAPPEM P-MHT of KIP in Jakarta, which is the organisation with the responsibility for the project, still has some problems which cannot be solved by KIP alone. The rights established in the local and central government have not yet been guaranteed in practice. In fact, this provision, still requires a strong coordination system and inter-association among them. The research also found some weaknesses in the centralised approach of delivering local government and public services as mentioned in section 8.4.1 above. It is, therefore, suggested that there is a need for greater responsibility at the local government and local authority level for planning, financing and managing urban services be pursued; a better integration of sectoral activities in a framework of cooperation should be put in place; and measures to strengthen the institutional and financial capability of local government should be provided.

Furthermore, if government sincerely wants to provide a higher standard of housing for its low-income people, it should concentrate in policy for land development. In response to this policy, the central government has adopted one example of an innovative programme, Guided Land Development, which is essentially a simplified form of land readjustment. It seeks to regulate and accelerate the efforts

of people to house themselves by providing serviced urban land affordable by low and middle income households in areas with adequate groundwater (UN, 1989:24-5). Large scale land development by government owned corporations can be used to control land prices and to guide urban development according to the urban land use plan. It can also be used to practice a cross subsidy system in land priority to help the low-income people. On the other hand, in many cases, low-income people can effectively participate in the land development process if they have access to land. In situation of limited resources, as this research has observed in the KIP, the findings of the research propose that the focus must not be on the production of housing units but on land in order to deliver a sufficient number of land plots to low-income people. The KIP is one example of land development that has succeeded in low-income communities.

8.4.3 Policy for Community Participation

This research has found that the residents in both improved and unimproved kampungs have a strong interest in community participation on a mutual-help basis (*gotong-royong*). The mutual-help efforts have been made through the kampung study areas to improve and to maintain the environment. Also, there are good tripartite relationships among government, community leaders (i.e. RW, RT, LKMD and *Yayasan Sosial*), and the residents in the kampung study areas (see section 7.8.2, pages 263-265). The findings of the analysis suggest that other policies which require consideration are the community's involvement in the provision of basic services. Hopefully it is apparent that urban sustainability cannot be achieved by the local community alone. Community involvement appears to be one way of overcoming local deficiencies in basic services, in achieving the health benefits that result from such facilities and in improving the quality of neighbourhood infrastructure.

The research also found that the most typical of resident participatory organisations is the formal LKMD (*Lembaga Ketahanan Masyarakat Desa* or

Organisation for Community Security) organisation and the *Yayasan Sosial* or Social Foundation which is an informal organisation which is a Non-Government Organisations (see section 7.9.1, pages 268-269). The aim of this social activity is to improve the welfare of neighbours in kampung areas, and also to help the community in various community projects, such as building mosques or churches, building housing and others public services.

However, the KIP-MHT is very much characterised by top-down approach, in which the central and local government took the initiative, decided about design and financed the whole programme. The kampung communities were involved in merely the implementation and the construction works. Therefore, the findings of the analysis suggest there should be a mechanism for coordination and integration, as well as a bottom-up and top-down approach of programme coordination, and consequently there has to be institution building in the kampungs which would perform this function and responsibility. Therefore, using these social organisations (LKMD and *Yayasan Sosial*) as a part of mutual-help, the community is encouraged to organise itself starting from the preparation of the planning process, to create a forum for the exchange of ideas within the community and to develop the construction of certain kinds of physical infrastructure. The implementation and maintenance are closely monitored by community leaders and local government. In this instance, local authorities and state department assistance still needs to be provided to the social organisation, including residential leaders, given that they have special training courses with the objective of improving the quality of the infrastructure services in their kampung areas. Once these activities are successfully established, several urban projects can be proposed.

8.4.4 Policy for Implementing Sustainable Urban Development

The major policy implication of the research may be to encourage urban policy-makers and planners in Indonesia to rethink their current urban development policies

which emphasise the goal of sustainable urban development. Elkin, McLaren and Hillman (1991:7) mention that "Sustainable urban development is a new goal. It requires the identification of environmental constraints to human activities in and related to cities and the adoption of methods designed to keep the results of our activities within those constraints. These goals can be achieved through an appropriate mix of regulation and incentive". This thesis has concerned itself with practical solutions, based on existing urban kampungs as part of the city. Because the city must be treated as a whole, the built form of the city is merely the tip of the 'iceberg' of the urban system (Ibid:8). The influence of urban activities on economic and ecological systems spreads far wider. Additionally it has been noted that the built form of the city, including kampung areas, interferes with ecological systems on a smaller scale. A broader perspective on the urban ecological system within the context of sustainable urban development is worth considering. Therefore, whole cities can be made more sustainable.

The findings of the analysis suggest that the emphasis of urban policy should be more placed on the building of institutions and policy programmes in order to tackle the environmental problem of urban kampungs and cities as a whole. According to Hardoy, Mitlin and Satterthwaite (1992:196-197), "one of the most important policy issues in implementing sustainable urban development is building the institutional framework within each city, district and region which can develop and implement sustainable development strategies which are acceptable to the majority of people living there". Therefore, in terms of kampung study areas, it requires commitment and participation from all sectors of society but most importantly it requires governmental recognition of the potential for environmental damage that is present in urban kampungs. Government must also take immediate precautionary action to establish a framework in which all sectors can contribute to the achievement of sustainable urban development.

In this respect, there should be good coordination and consultation among the various ministries, KIP-MHT, local authorities and community leaders who will be involved in the development of urban infrastructure and services. It is in this regard that Choguill (1993:7) mentions, "in order to achieve sustainability, it would appear that municipal authorities should take a flexible and sensitive approach to standards. If progressive improvement of a city's housing stock is to be achieved, tolerance is sometimes required". However, this research found that in Jakarta, local governments still cannot take on these roles without a strong financial base, the support of national government and an appropriate legislative, regulatory and incentive structure. Therefore, the findings of the study propose that there is a strong need for mechanisms to increase the capability of local government staff, institutions (the various agencies in DKI Jakarta, including KIP-MHT), and community leaders (RW, RT and LKMD) to execute urban development activities more effectively in the context of strengthening their roles. Responsibility will be enhanced by institutional development, procedural improvement, where appropriate, as well as training to be provided by means of a coordinated programme of local government manpower development to address development and sustainability goals.

The findings of the study also suggest that continuously encouraging mutual-help (*gotong-royong*) activities in Indonesia is a national goal. This essentially indicates that the community activities actually have potential to develop their own built environments in the kampung areas, but have no links with the local government programmes. The capacity of local government working together with community leaders, LKMD and *Yayasan Sosial*, is also central to the achievement of sustainable urban development goals. Therefore, the government should be able to organise and mobilise such potential to help the developing environment kampungs and others urban areas in the future.

8.5 Research Recommendations

From the analysis of the impact of the KIP in Chapter 7, it has been indicated that various constraints and problems of urban projects need to be addressed and rectified in order to improve the existing achievements and to sustain their viability as well as to face the future challenges. These factors will be discussed below and recommendations will be made in each case.

First, looking to the experience of KIP, the improvement of infrastructure in densely populated kampungs results in some people having to give up part of their property and in some cases having to move. In most cases, the people who have to move belong to the lowest and the low-income groups because they built their dwellings close to the footpaths or over drains. Therefore, it is recommended that efforts are needed to strengthen the local authorities, particularly BAPPEM P-MHT and LKMD to encourage dissemination of more information for local residences so they can effectively participate in the development of the urban areas, including as a last resort, moving to new settlements. If resettlement takes them far from their employment opportunities and requires much energy and money to build new housing, in many cases, it will lead to their return to squatter settlements, a situation which must be avoided.

Second, the study has revealed that the settlers in improved kampungs were satisfied with what they had received from the urban development process and the urban services as a result of KIP. They were also satisfied with the co-ordination and integration which had taken place within the neighbourhoods, and the spirit of mutual-help (*gotong royong*) in operation, maintenance and public participation in the KIP. Therefore, as participatory urban services are dependent upon people's active involvement if they are to succeed, the most practical recommendation is to expand residents' awareness of the need for and scope of such activities and their essential roles in bringing these to fruition. If more people can be involved at all stages of

service provision, including planning, implementation, maintenance and evaluation, it is more likely that the service will be provided.

Third, this study has demonstrated that the central government has reduced its influence over the implementation of KIP and the urban development process through supporting the leaders and the residents' activities in planning, implementing, maintaining and monitoring. The government has stated clearly in the goals and the objectives of the Fifth Five Year Development Plan (REPELITA 1989-1994) that the KIP must proceed and be upgraded. The KIP should also be considered in formulating the future strategy of the urban development policies. Therefore, it is recommended that the role of the central government should be to create a developmental environment by way of providing the infrastructure and facilities needed by planners, developers and land users. There must be a good relationship and understanding between the government, the urban citizens, the local leaders and the private sector, thereby blending the political will of the government and the active participation of the people and the community.

Fourth, the experience of KIP indicates that the need to strengthen local authorities is an important issue. When local authorities are weak, urban kampung settlement development is bound to suffer. There are many causes of weakness, including inadequacy of funds made available by central government, inability or unwillingness to generate local revenues, poorly developed capacities for operational and fiscal management, paucity of trained manpower, and lack of career prospects for those who choose to work at the local level. It is at this level, however, that urban kampung policies and plans are implemented, and it is here that the burdens placed on settlement institutions are growing most rapidly. Therefore, governments should carefully consider the critical role of local bodies in the formulation and implementation of policies, strategies, and plans for urban settlements. Measures to support local authorities imply an additional flow of resources from central government as well as

the broadening of local revenue-raising powers. Some of these measures deal with planning, administration and training for urban kampung settlement development.

Fifth, in terms of development of the urban sector, particularly in kampung areas, it is suggested that:

- (1) There is a need to strengthen the economic-base of urban kampungs in Jakarta. The regional economies have to be diversified to maintain income stability.
- (2) Under the Fourth and Fifth Development Plans (REPELITA 1984-1989 and 1989-1994) and national development planning, the role of the private sector has been highlighted as an active participant in the development in the urban and rural development. This role should be strengthened within the kampung context as a means of providing further economic and employment opportunity for residents.
- (3) The household survey has shown the presence of various types of skills possessed by the settlers and these should be developed. Small businesses and home industries should be exploited as the economic base of urban kampungs.
- (4) National policies are needed which minimise the generation of waste and pollution. This requires promotion of re-use and recycling of waste through source separation for recycling, and assisting or promoting investment in reclamation technology.

Sixth, moreover, the cost of units in public construction projects cannot be limited to the affordable means of low-income people in kampung areas. Limitations in government financial resource allocation obviously restrict the number of units and number of people which can be served. Although it is not a subject of the study, the involvement of the private sector enterprises and the use of appropriate technology in maximising the utilisation of settlements in KIP should be seriously considered. The government's hope is that the private sector will provide the capital needed to expand and improve services, if offered the opportunity. Therefore, the private sector would be taking over some of the responsibilities of central and local government, and

moreover, the sustainability of the KIP and the whole of the urban programme will be enhanced and highlighted.

Finally, urban sustainability is not an easy state to achieve. In order to achieve something approaching urban sustainability, a reconsideration of the way current priorities, such as economic, societal, ecological and technological, are set is needed to include the environment in its broadest sense. Similar views have been expressed by Choguill (1993) that all of these elements are interrelated, but in too many areas, urban planners and government officials are only now beginning to understand the relationships and feedbacks that exist among them. In addition, the art of urban planning must necessarily be extended into new areas.

Therefore, it is suggested that the consistency of KIP to sustainable cities should not be considered as a temporary step because kampungs have existed within Indonesian cities for many years. The kampung developments cannot be separated from other parts of the city. They grow with people, and it is people's inspiration and spirit which builds their environment. It is the duty of planners, architects and policy makers to improve the conditions not only for the people, but also with the people. Kampungs should not be treated as 'creeping cancers', but as 'slums of hope', and KIP should be considered as a component part of sustainable urban development as a means of improving the standards of living and increasing the quality of life.

8.6 Prospect for Further Research

At this point, it is appropriate to note that the scope of this study was limited by constraints of finance, resources and time. There were also other problems which were, however, generally overcome with the experience gained in the research process. This study has revealed some areas and issues that need to be explored and considered further by the policy makers and planners. Many of the issues could not be fully examined in this research for a variety of reasons but deserve more attention in future work. First of all, the limitations of towards sustainable urban development that have

been highlighted in this research and need to be further explored. The list below enumerates the areas that can be investigated with more detail and in most cases represent areas for further research:

- (1) This study was limited to the very fast growing metropolitan area of Jakarta. Further studies of smaller cities with slower rates of growth and at a different point in the urban development cycle are still needed. It will provide better understanding for preparing appropriate spatial planning approaches to more modestly sized and slower growing cities.
- (2) Studies are required to assist in the identification of factors which will lead to the creation of internal dynamism which it is strongly believed could overcome the dependency of the settlers on KIP. Creation of internal dynamism will create a broader scope of secondary activities which will create more sources of future income.
- (3) In terms of potential labour, this study has shown that in community participation in the building of mosques, schools, public health facilities, dwellings, the community generally provides the labour. The important thing is to consult with the community in the planning of activities that will be conducted together so that the people will recognise the benefits provided by these activities. Studies on how this might be achieved could assist the process.
- (4) Since 1985, Indonesia's on-going Integrated Urban Infrastructure Development Project (UIDP) has proved to have the potentiality of bringing modern infrastructure to the cities of Indonesia. The whole UIDP approach was built on the strengths and experiences of the earlier successful KIP, which was the first large-scale integrated infrastructure provision programme at neighbourhood level and UIDP expanded this approach into a city-wide urban betterment and urban development programme. Because the UIDP not only follows a basic needs approach but has as its major objective the increase in the role of provincial and local governments, of the private and community sectors and the provision,

financing and management of a larger proportion of local infrastructure through the development of appropriate local institutions to support this process, this would seem to be a useful model for the future. Future studies of the interrelationships between KIP and IUIDP could lead to the definition of this model.

- (5) Another model for future research is the involvement of women's participation. This study has not analysed the role of women in social activities or those that support and supplement their spouses' incomes. Women do, however, play an important role in kampung improvements. Women monitor building materials, informally supervise construction activities and supply food and drinks to the workers. Their role is most prominent in maintenance and follow-up. They sweep footpaths and keep drains free of rubbish, collect money to buy trees and other vegetation and plant these in borders along the footpaths. Women also make commercial investments following kampung improvement, including opening beauty salons, starting tailor shops, selling home-made food or starting other home industries. All activities of women are channelled through the Family Welfare Organisations or PKK (*Pembinaan Kesejahteraan Keluarga*) as a part of LKMD. Therefore, in this regard, an independent study is required to investigate their role and potential of women in improving the standard of living of their families and the general well-being of the people.
- (6) Economic development strategies and human settlements policies are both concerned with the creation of conditions conducive to sustainable economic and urban development. Strengthening the linkages between economic development and human settlements policies can be expected to result in the improvement of both, enhancing their individual and combined contributions to the process of raising standards of living and the quality of life. Therefore, future studies are also required on the spatial linkages in economic development programmes and sustainable urban development and their relationships. With the inclusion of the

urban kampungs in Jakarta, research should focus on how to absorb these urban kampungs effectively into the urban and regional economy without changing their present diversified economies and social structures.

- (7) Further studies can be also identified in the areas where the main changes are now being made in Indonesia. In this respect the impact of urban development programme need to be examined in terms of the implications of the definitional concepts of urban sustainability because urban development programme is rapidly increasing in Indonesia. Secondly, the linkage pattern of technology-oriented sectors also need further attention as they are increasingly emphasised in urban development. This provides valuable information for urban planners and policy makers in Indonesia who have recently begun to integrate high technology constraints into urban development policy particularly for the urban poor settlements.
- (8) Finally, future research on sustainable urban development should identify the variables which come into play in determining the impact of the global environment on the urban kampung areas and the impact of local urban environments on global environmental concerns. Moreover, it is also important to identify the actual and potential conflict which can arise between urban and national concerns in determining amelioratives to urban environmental problems. The links which can be forged between collective action at the community level and government provisioning mechanisms should also be studied.

8.7 Conclusions

In this chapter, the author has summarised the discussions from the previous chapters by first reviewing the literature which forms the conceptual framework of the study. Further, the existing conditions and the problems of the urban development in Indonesia, particularly in Jakarta, were examined followed by an analysis of the impact

of the Kampung Improvement Programme in Jakarta in terms of sustainable urban development.

Using a case study of urban kampungs of Jakarta, an analysis of social, economic and physical characteristics of the kampung areas and the impact of KIP on sustainable urban development were carried out. It has been shown that it has had a positive impact on improving the standards of living and the quality of life of the urban kampungs. The implications of the findings of the research in sustainable urban development have shown that more broadly based social, economic, physical and environment activities, and a more integrated approach among the government, community and international agencies are necessary in order to promote the continuous and sustained growth of the urban areas as a whole. These are concerned with the creation of balanced urban development without jeopardising future generations.

Some policy recommendations have been suggested to the policy makers and the authorities to review the existing strategies and problems in the implementation of the Kampung Improvement Programme in other cities. These include the need to attract more local urban population to participate in the development process, the need to improve the economic base and its linkages, and the need to reconcile the conflict between the urbanisation and urban policies in the region.

In order to have a better understanding of the research process of sustainable urban development, future research efforts have been suggested to focus on the implications of the definitional concepts of urban sustainability, to measure not only environmental costs within the city but within the city's hinterland, community participation of local urban residents, the relationship among the central/local governments, local leaders and residents, also with the planner. Moreover, urban studies should identify the impact of global environment on the urban development policies.



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AND
APPENDIXES**

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APPENDIX 1-A

**SCORING SYSTEM OF KAMPUNGS TO
DETERMINE KIP ELIGIBILITY
(1978-1989)**

APPENDIX 1-A

SCORING SYSTEM OF KAMPUNGS TO DETERMINE KIP ELIGIBILITY (1978 - 1989)

Criterion	Eligibility factor	Points
Age of kampung	a. existing before 1945 (old)	3
	b. existing between 1946 and 1960 (young)	2
	c. existing after 1960 (new)	1
Population density	a. between 551 - 990 people per Ha	3
	b. between 271 - 550 people per Ha	2
	c. between 100 - 270 people per Ha	1
Family income (1978 prices)	a. Rp. 30,000 per month and lower	3
	b. Rp. 31,000 to 59,000 per month	2
	c. Rp. 60,000 per month and more	1
Location	a. within the central district	3
	b. inside the middle district	2
	c. on the peripheral district	1
Building conditions	a. temporary/emergency	3
	b. semi-permanent	2
	c. permanent	1
Accessibility (road condition)	a. no facility, mud road	6
	b. no facility, roads with some temporary surface layer	4
	c. good facility, many good roads with asphalt surface	2
Land use (the status of land use in kampungs is based on the Jakarta Master Plan, and not on the existing land use)	a. completely housing	9
	b. housing and public building	6
	c. industry, greenbelt	3
Water Supply	a. no water supply, no wells, people buy from vendors	9
	b. no water supply, good water from wells, people wash/clean in streams/rivers	6
	c. water supply exists, good water from wells	3

Criterion	Eligibility factor	Points
Sanitation	a. no latrine, some bathing facilities, people wash/clean in streams/rivers	9
	b. some latrines, bathing facility exists, some wash/clean in streams/rivers	6
	c. many latrines, many bathing facilities, nobody washes/cleans in streams/rivers	3
Incidence of floods	a. throughout the area	9
	b. part of the area	6
	c. no incidence	3
Health conditions	a. high mortality rate	9
	b. moderate mortality	6
	c. low mortality rate	3
Schools	a. schools nonexistent	3
	b. schools not sufficient	2
	c. enough schools	1
People's attitudes	a. high mutual aid spirit, active role in development, high participation	6
	b. evidence of mutual help spirit, some participation	4
	c. no mutual help spirit, no participation	2

Source : BAPPEM P-MHT, KIP-MHT 1 and 2, 1978.

APPENDIX 1-B

**SCORING SYSTEM OF KAMPUNGS TO
DETERMINE KIP ELIGIBILITY
(1990 to Present)**

APPENDIX 1-B

SCORING SYSTEM OF KAMPUNGS TO DETERMINE KIP ELIGIBILITY (1990 to Present)

Criterion	Eligibility factor	Points
<u>A. Social Factors</u>		
1. Institutional	a. staff exists and passive, no activity, no budget and no office/equipment	5
	b. staff exists and active, no activity, no budget, and no office/equipment	4
	c. staff exists and active, activity exists, no budget and no office/equipment	3
	d. staff exists and active, activity exists, enough budget and no office/equipment	2
	e. staff exists and active, activity exists, enough budget, have office, and enough equipment	1
2. Environment and health conditions	a. People do not understand importance of clean environment and good health	5
	b. a little understanding	4
	c. some understanding	3
	d. good understanding	2
	e. strong understanding of clean environment and good health	1
3. Level of self-sufficiency	a. weak participation in LKMD and KIP	5
	b. very little participation	4
	c. a little participation	3
	d. good participation	2
	e. strong participation in LKMD and KIP	1
4. Level of security	a. high crime rate, fires, and floods	5
	b. low crime rate, fires, and floods	3
	c. a little crime, fires, and floods	1
5. Labour condition	a. low level of skills	5
	b. average level of skills	3
	c. high level of skills	1

Criterion	Eligibility factor	Points
<u>B. Economic factors</u>		
1. Institutional	a. no cooperative bank	5
	b. a little participation from community in cooperative activity	3
	c. high participation and have cooperative bank	1
2. Level of productivity	a. very little knowledge about management, labour, quality of product, capital and marketing	5
	b. a little of knowledge	4
	c. fair of knowledge	3
	d. enough of knowledge	2
	e. high knowledge about management, capital, and marketing	1
<u>C. Physical factors</u>		
1. Incidence of floods	a. every rainy season and a long time to clear	5
	b. every rainy season and 3 hours to clear	4
	c. every rainy season and 2 hours to clear	3
	d. every rainy season and one hour to clear	2
	e. no incidence	1
2. Density of buildings	a. very crowded per hectare	5
	b. much crowded per hectare	3
	c. a little crowded per hectare	1
3. Accessibility (roads conditions)	a. no network plan and still soilpaved	5
	b. some network plan and road deterioration	4
	c. some network plan and road failure	3
	d. good network plan and many good roads	2
	e. good network plan and asphalt roads	1
4. Water supply	a. high contamination in groundwater and no piped water distribution	5
	b. high contamination in groundwater and a little distribution of piped water	4
	c. low contamination in groundwater and some distribution of piped water	3
	d. low contamination and enough distribution	2
	e. little contamination and high distribution	1

Criterion	Eligibility factor	Points
5. Sanitation	a. very little capacity of MCK and septic tanks	5
	b. little capacity	4
	c. enough capacity	3
	d. high capacity	2
	e. very high capacity of MCK and septic tanks	1
6. Garbage/environment	a. dirty environment and very few garbage bins	5
	b. somewhat dirty environment and enough bins	3
	c. clean environment and many garbage bins	1
7. Open space	a. very little open space and green area	5
	b. a little open space and green area	4
	c. some open space and green area	3
	d. enough open space and green area	2
	e. much open space and green area	1
8. Housing conditions	a. messy and temporary materials	5
	b. mixed temporary and semi-permanent	4
	c. orderly semi-permanent materials	3
	d. good network, mixed semi and permanent	2
	e. good network, tidy, and permanent materials	1
9. Population density	a. more than 500 people per Ha	5
	b. between 400 - 500 people per Ha	4
	c. between 300 - 400 people per Ha	3
	d. between 200 - 300 people per Ha	2
	e. between 100 - 200 people per Ha	1

Source: BAPPEM P-MHT, KIP-MHT 3, 1990.

APPENDIX 2

QUESTIONNAIRE OF HOUSEHOLD SURVEY

APPENDIX 2

**AGENCY FOR THE ASSESSMENT AND APPLICATION OF TECHNOLOGY
(BPP TEKNOLOGI)**
cooperation with
UNIVERSITY OF SHEFFIELD
DEPARTMENT OF TOWN AND REGIONAL PLANNING

**RESEARCH SURVEY OF SUSTAINABLE URBAN DEVELOPMENT
IN THE KAMPUNG IMPROVEMENT PROGRAMME
JAKARTA - INDONESIA (1992/1993)**

HOUSEHOLD SURVEY

Surveyor(s) :	
Respondent :	
Kecamatan :	Kelurahan :
Kampung :	Street/No. :
RT/RW :/.....	Date : / / 199 .

ACKNOWLEDGEMENT

I am sending you this questionnaire as part of the study of "**Sustainable Urban Development in the Kampung Improvement Programme - Muhammad Husni Thamrin (KIP-MHT) in Jakarta**", which is required for my thesis of Doctor of Philosophy in Sheffield University - Department of Town and Regional Planning, United Kingdom. This survey intended to increase the knowledge, experience and research in terms of urban settlement and environment in Jakarta.

The information and statement you give me in this questionnaire are very important to support the implementation and the sustained of the Kampung Improvement Programme (KIP-MHT) in Jakarta. For that reason, could you answer all the question in this questionnaire.

All information and statement you give me will be completely confidential and only used for academic purpose and for the success of this programme.

Thank you for your valuable contributing to the study.

Your sincerely,

Hasan Mustafa Djajadiningrat

A. BACKGROUND OF THE HOUSEHOLD

NAME OF RESPONDENT :																					
No.	Items	Please cross (X) in the relevant box where is appropriate																			
A.	Sex	1	2																		
B.	Marital status	1	2	3	4																
C.	Number of children	1	2	3	4	5	6	7													
D.	Religion	1	2	3	4	5	6														
E.	Level of education	1	2	3	4	5	6	7	8	9											
F.	Origin of respondent	1	2	3	4	5	6	7	8	9	10	11									
G.	Time of living in Jakarta	1	2	3	4	5	6														
H.	Status of citizen	1	2	3																	
I.	Occupation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
J.	Income per month	1	2	3	4	5	6	7													
K.	Number of family member	1	2	3	4																
L.	Total number of people in house	1	2	3	4	5															
M.	Other source of income	1	2	3	4																

NORESP

HA01A
HA01B
HA01C
HA01D
HA01E
HA01F
HA01G
HA01H
HA01I
HA01J
HA01K
HA01L
HA01M

Note.

No. A:
1. Male
2. Female

No. D:
1. Muslim
2. Protestant
3. Catholic
4. Buddha
5. Hindu
6. Believer

No. F:
1. Jakarta
2. West Java
3. Central Java
4. East Java
5. Sumatera
6. Kalimantan
7. Sulawesi
8. Maluku
9. Bali and Lombok
10. NTB and NTT
11. Irian Jaya

No. H:
1. Jakarta
2. Outside Jakarta
3. None

No. J:
1. < Rp. 50,000
2. Rp. 50,001 - Rp. 100,000
3. Rp. 100,001 - Rp. 150,000
4. Rp. 150,001 - Rp. 200,000
5. Rp. 200,001 - Rp. 250,000
6. Rp. 250,001 - Rp. 300,000
7. > Rp. 300,001

No. L:
1. 3 people
2. (4 - 5) people
3. (6 - 7) people
4. (8 - 9) people
5. > 10 people

No. B:
1. Married
2. Not Married
3. Divorce lived
4. Divorce dead

No. I:
1. Army
2. Civil service
3. Street vendors
4. Scavengers
5. Small business
6. Mechanic
7. Electrician
8. Teacher
9. Housewife
10. Retired
11. Taxi/Public driver
12. Builder/Plumber
13. Carpenter
14. Private services

No. K:
1. One family
2. Two families
3. Three families
4. > Four families

No. M:
1. Husband or Wife
2. Children
3. Other family members
4. None

No. C:
1. None
2. One
3. Two
4. Three
5. Four
6. Five
7. > Five

No. E:
1. No schooling
2. Finished Primary school
3. Not finished Primary school
4. Finished First high school
5. Not finished First high school
6. Finished Senior high school
7. Not finished Senior high school
8. Finished University/College
9. Not finished University/College

No. G:
1. < one year
2. 1 - 5 years
3. 6 - 10 years
4. 11 - 15 years
5. 16 - 20 years
6. > 20 years

15. Home industry
16. Industry worker
17. Security/guard
18. Nurses/Mid-wife

19. Peddlers
20. Unemployed

B. EXPENDITURE OF HOUSEHOLD

2. Could you describe the **estimated expenditure** of the household per weekly or monthly?

NO.	Expenditures	Weekly (1000 Rp)	Monthly (1000 Rp)		
a.	Food	.....	.....	HB02A	<input type="text"/>
b.	Clothing	.....	.....	HB02B	<input type="text"/>
c.	Rent of house	.....	.....	HB02C	<input type="text"/>
d.	House maintenance	.....	.....	HB02D	<input type="text"/>
e.	Transportation	.....	.....	HB02E	<input type="text"/>
f.	Water supply	.....	.....	HB02F	<input type="text"/>
g.	Maintenance and improvement water	.....	.....	HB02G	<input type="text"/>
h.	Electricity	.....	.....	HB02H	<input type="text"/>
i.	Garbage services	.....	.....	HB02I	<input type="text"/>
j.	Drainage and sewerage	.....	.....	HB02J	<input type="text"/>
k.	Septic tank or MCK	.....	.....	HB02K	<input type="text"/>
l.	Security	.....	.....	HB02L	<input type="text"/>
m.	Education	.....	.....	HB02M	<input type="text"/>
n.	RT/RW contribution	.....	.....	HB02N	<input type="text"/>
o.	PBB (Property tax)	.....	.....	HB02O	<input type="text"/>
p.	Recreation / others	.....	.....	HB02P	<input type="text"/>
q.	T O T A L	.....	.....	HB02Q	<input type="text"/>

C. MOBILITY

3. Reason of **first move** to Jakarta

HC03

1. Find a job
2. Increase income
3. Job transfers

4. Children's' education
5. Unsatisfied with previous site
6. Originally born in Jakarta

4. Factor that **influenced to stay** in the kampung:

HC04

1. Nearness to work place
2. Cheap house rents
3. Pressure from longer-term residents
4. Proximity to family and friends

5. Any intention to **move out** from this kampung

HC05

1. Yes

2. No

6. If **Yes**, **reason** of move :HC06

1. Lack of utility services
2. Lack of social services
3. Poor sanitation
4. Lack of personal security
5. Lack of children's educational
6. Tenure security
7. High income rate
8. Higher housing cost

D. HOUSING7. **Housing status** :HD07

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Ownership 2. Rent from private landlord 3. Lodging with relatives/family | <ol style="list-style-type: none"> 4. Government/privates' own 5. Don't know |
|---|--|

8. **Land Status** :HD08

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Land owner 2. Government | <ol style="list-style-type: none"> 3. Private land 4. Don't know |
|--|--|

9. **Construction quality** of the housingHD09

1. Permanent
2. Semi Permanent
3. Temporary

10. **House type** :HD10

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. One storey 2. Two storeys | <ol style="list-style-type: none"> 3. Row houses 4. Barrack |
|---|---|

11. **Total house size** :HD11

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Less than 10 m2 2. 10.1 - 20 m2 3. 20.1 - 30 m2 4. 30.1 - 40 m2 | <ol style="list-style-type: none"> 5. 40.1 - 50 m2 6. 50.1 - 60 m2 7. More than 60 m2 |
|---|--|

12. **Number of rooms** in the house :HD12

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. One room 2. Two rooms | <ol style="list-style-type: none"> 3. Three rooms 4. More than Three rooms |
|---|--|

E. ROAD and PATH13. **The Construction** of the road/path :HE13

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Asphalted 2. Cemented 3. Brick | <ol style="list-style-type: none"> 4. Soilpaved 5. Mud |
|---|--|

14. Who has **established the road**?

HE14

1. Public Works
2. DKI Jakarta
3. Don't Know

4. Under KIP
5. Community Participation

15. Who **furnished the land** for the road?

HE15

1. Private owner/Community
2. Municipality

3. Under KIP
4. Don't know

F. WATER SUPPLY

16. How is water obtained for **drinking/cooking**?

HF16

01. Piped Water connected
02. Water taps, public (KIP)
03. Deep well, public (KIP)
04. Deep well, private
05. Hand pump, shallow well, public (KIP)
06. Hand pump, shallow well, private
07. Dug well with bucket scoop, public
08. Dug well with bucket scoop, private
09. Vendors
10. River

17. How is water obtained for **hygienic and other purposes**?

HF17

01. Piped Water connected
02. Water taps, public (KIP)
03. Deep well, public (KIP)
04. Deep well, private
05. Hand pump, shallow well, public (KIP)
06. Hand pump, shallow well, private
07. Dug well with bucket scoop, public
08. Dug well with bucket scoop, private
09. Vendors
10. River

G. TOILET

18. What **toilet system** is on the house?

HG18

1. None
2. Ventilated WC
3. Non ventilated WC

19. If **no latrine**, where do you defecate yourselves?

HG19

1. Neighbour shared latrine
2. Public latrine (MCK)
3. Unoccupied land
4. River
5. Ditches or drainage's

20. Who has **established the MCK** (Communal sanitation facilities)? HG20

- | | |
|----------------------|-----------------------------|
| 1. Public Works | 4. DKI Cleansing Department |
| 2. Health Department | 5. Mutual Help |
| 3. Under KIP | 6. Private |

21. What kind of **water supply system** is in the MCK? HG21

1. Piped water supply (city mains)
2. Deep well
3. Hand pump, shallow well
4. Dug well
5. Vendors

22. How many **households** use the MCK? HG22

_____ families

23. Where is the **liquid effluent** from the toilets going? HG23

1. to sewer
2. to septic tank with drain fields
3. to septic tank with overflow to drains
4. to leaching pit
5. direct discharge to drains
6. direct discharge to streams, rivers

24. **Physical conditions** of the MCK? (surveyor's judgement) HG24

1. Very good, well maintained
2. Good
3. Poor, inadequate

25. If **inadequate**, why? HG25

1. MCK is too old
2. Maintenance neglected
3. Lack of finance sources

26. Who **furnished the land** for the MCK? HG26

1. Private owner
2. Government
3. Under KIP

H. SOLID WASTE

27. What is done with **rubbish**? HH27

- a. Collected by DKI Cleansing Department
 1. rubbish is picked up from the house by hand carts
 2. delivered by family to a storage/transfer point for truck collection
- b. Collected by local community system, run by the RT's (Rukun Tetanggas) or RW's (Rukun Warga), whereby
 3. rubbish picked up from the house by hand carts

4. delivered by family to a storage/transfer point for truck collection
5. Thrown by family on the roadside, open land
6. Thrown into drains, open ditches
7. Thrown into river
8. Burn
9. Composting

28. What are the **solid waste facilities** used by the house owner? HH28

- | | |
|---------------------------------|---------------------|
| 1. Concrete bins | 4. Garbage cans |
| 2. Oil drums mounted on a stand | 5. Open/any where |
| 3. Paper bags | 6. Wood/Bamboo bins |

29. Role and attention of **RT and RW** to the wastes: HH29

- | | |
|---------------------------------------|------------------|
| 1. High attention and regular control | 3. Low attention |
| 2. Fairly attention | 4. No control |

I. DRAINAGE

30. **Drain system** in the kampung was designed and built by : HI30

1. None. **If none, continue to number 33**
1. Public works
2. Under KIP
3. Private company
4. Community participation

31. **Operation and maintenance** of drain system are responsibility of : HI31

1. Public works
2. DKI Jakarta/KIP
3. Community Participation

32. **Physical conditions** of the drain : HI32

- | | | |
|--------------|---------|---------|
| 1. Very good | 2. Good | 3. Poor |
|--------------|---------|---------|

33. The **reason of poor** of the drain HI33

1. Old age
2. Damages
3. Narrowing
4. Obstruction by road widening
5. Obstruction by coverings
6. Main drainage disfunction

34. Role and attention of **RT and RW** to the drains : HI34

1. High attention and regular control
2. Fairly attention
3. Low attention
4. No control

35. The **ditch system** in the area serves for removing by : HI35
1. Storm water only
 2. Storm water and sullage water (from kitchen/bathing/washing)
 3. Storm water, sullage water and overflow from pits
 4. as (3) and solid waste

36. How is the **trash** taken from the drain disposed of? HI36
1. To designated pick-up places
 2. Along the vehicular roads
 3. Along the waterways
 4. None

37. Is the drain **flooded** during rainy days? HI37
1. Yes
 2. No

J. ELECTRICITY

38. What kind of **energy system** is in your house? HJ38
1. None
 2. Electricity from PLN
 3. Fuel
 4. Candle

39. What kind of **electricity** is connected in your house? HJ39
1. Legal connection
 2. Share with neighbour
 3. Illegal

K. COMMUNITY PARTICIPATION IN THE SPIRIT OF MUTUAL-HELP

40. What kind organisation are you involved in your neighbourhood? HK40
1. LKMD (Village Social Committees)
 2. Yayasan Sosial (Social Foundation)
 3. Not active

41. As far as you and your family are concerned with the spirit of mutual-help, have you, or do you intend to become really involved in the process of the KIP? HK41
1. Yes
 2. No

42. If **Yes**, what kind of activities have you, or will you be involved during the process of implementation of KIP? HK42
1. Planning Process
 2. Concept and Design Plan
 3. Monitoring and Implementation
 4. Construction
 5. Maintenance
 6. Administration

43. What kind of cooperation and supportive have you, or will you give to implement the KIP? HK43
1. Financial
 2. Land for services

3. Willing to restructure house and/or plot
4. Would contribute labour to improvements
5. None

L. PERCEPTION AND OPINION OF KAMPUNG IMPROVEMENT PROGRAMMES

44. Do you think that the Kampung Improvement Programme has contributed to solutions of **urban environment** in your area?

HK44

1. Very big contribution
2. A little contribution
3. Very little contribution
4. No contribution

45. What do you think about **the success** of Kampung Improvement Programme implemented by the Jakarta Municipality Government (DKI Jakarta)?

HK45

1. Very successful
2. Rather successful
3. Seldom successful
4. Unsuccessful

46. How did you feel about the following **social-cultural and economic conditions** in your area during the period 1970 - 1990?

Items		A	B	C	D	E		
a.	Social activities and integration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46A	<input type="checkbox"/>
b.	Community organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46B	<input type="checkbox"/>
c.	Children care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46C	<input type="checkbox"/>
d.	The type of people living nearby	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46D	<input type="checkbox"/>
e.	Mutual help of the neighbourhoods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46E	<input type="checkbox"/>
f.	Internal security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46F	<input type="checkbox"/>
g.	Self help housing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46G	<input type="checkbox"/>
h.	Employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46H	<input type="checkbox"/>
i.	Number of informal sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46I	<input type="checkbox"/>
j.	Activity of small business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46J	<input type="checkbox"/>
k.	Activity of home industries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL46K	<input type="checkbox"/>

Note : A = very big improvement
 B = small improvement
 C = no improvement

D = slightly deteriorated
 E = deteriorated very much

47. How did you feel about the following **condition of urban services** in your area during the period 1970 - 1990?

Items		A	B	C	D	E		
a.	Education facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL47A	<input type="checkbox"/>
b.	Health facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL47B	<input type="checkbox"/>
c.	Religion facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL47C	<input type="checkbox"/>
d.	Playground and green area conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL47D	<input type="checkbox"/>
e.	Market and shop facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL47E	<input type="checkbox"/>
f.	Communal hall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HL47F	<input type="checkbox"/>

Note : A = very big improvement
 B = small improvement
 C = no improvement

D = slightly deteriorated
 E = deteriorated very much

M. SATISFACTION LEVELS TOWARD URBAN DEVELOPMENT

48. Do you think the KIP or Jakarta Municipality Government (DKI Jakarta) have effected the **urban development services** in your kampung?
 Please tick (v) in the relevant box where appropriate.

Items		A	B	C	D			
a.	Providing capacity of education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48A	<input type="checkbox"/>	
b.	Providing capacity of religious house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48B	<input type="checkbox"/>	
c.	Providing capacity of health centres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48C	<input type="checkbox"/>	
d.	Improvement of administration procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48D	<input type="checkbox"/>	
e.	Providing public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48E	<input type="checkbox"/>	
f.	Increasing quality and quantity of water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48F	<input type="checkbox"/>	
g.	Providing capacity of garbage collection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48G	<input type="checkbox"/>	
h.	Flooding and pollution improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48H	<input type="checkbox"/>	
i.	Improving quality of sewerage and drainage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48I	<input type="checkbox"/>	
j.	Providing public services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48J	<input type="checkbox"/>	
k.	Providing playground and green areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HM48K	<input type="checkbox"/>	

Note : A = very much effected
 C = little effected

B = some what effected
 D = no effected

APPENDIX 3

QUESTIONNAIRE OF LEADERSHIP SURVEY

APPENDIX 3

AGENCY FOR THE ASSESSMENT AND APPLICATION OF TECHNOLOGY
(BPP TEKNOLOGI)
cooperation with
UNIVERSITY OF SHEFFIELD
DEPARTMENT OF TOWN AND REGIONAL PLANNING

RESEARCH SURVEY OF SUSTAINABLE URBAN DEVELOPMENT
IN THE KAMPUNG IMPROVEMENT PROGRAMME
JAKARTA - INDONESIA (1992/1993)

LEADERSHIP SURVEY

Surveyor(s)	:	.....		
Respondent	:	.....		
Kecamatan	:	.....	Kelurahan	:	.....
Kampung	:	.....	Street/No.	:	.....
RT/RW	:	...../.....	Date	:	/ / 199 .

ACKNOWLEDGEMENT

I am sending you this questionnaire as part of the study of "Sustainable Urban Development in the Kampung Improvement Programme - Muhammad Husni Thamrin (KIP-MHT) in Jakarta", which is required for my thesis of Doctor of Philosophy in Sheffield University - Department of Town and Regional Planning, United Kingdom. This survey intended to increase the knowledge, experience and research in terms of urban settlement and environment in Jakarta.

The information and statement you give me in this questionnaire are very important to support the implementation and the sustained of the Kampung Improvement Programme (KIP-MHT) in Jakarta. For that reason, could you answer all the question in this questionnaire.

All information and statement you give me will be completely confidential and only used for academic purpose and for the success of this programme.

Thank you for your valuable contributing to the study.

Your sincerely,

Hasan Mustafa Djajadiningrat

Number of respondent

NORESP **A. THE NEIGHBOURHOOD DEVELOPMENT INSTITUTION (LKMD)**

1. As far as you know about LKMD, do you think the LKMD have affected in your area? LA01
1. Yes 2. No
2. If No, what is the reason? LA02
1. No participation from the neighbourhood
2. The goal of LKMD is unclear
3. The shelter is complex or real estate
4. Most of the people are seasonal workers
3. Since two years ago, what kind of activities from LKMD domineer the development in your area (give in ranking) LA03A
LA03B
LA03C
1. Building construction
2. Road construction
3. Cleanliness of environment
4. Training
5. Formal education
6. Make co-operative
7. Guidance and counselling
8. art
4. What is the main stalled in that activities? LA04
1. Not enough budget 3. Less of interest
2. Less of self-sufficient 4. Less of participation
5. From the project developments that were constructed by LKMD, which one is relevant to the community (give in ranking) LA05A
LA05B
LA05C
LA05D
LA05E
1. Religion facilities
2. Transportation facilities
3. Economy facilities
4. Education facilities
5. Social and culture facilities
6. How about community participation in development programmes? LA06
1. Strongly influenced 3. Some what influenced
2. Active 4. Does not active
7. What is the best way to increase community participation in development programmes? LA07
1. Sporadic meeting 3. Give instruction
2. Give good example & motivated 4. Cultivated

8. How about the relation among neighbourhoods? LA08

1. Very tight
2. Normal

3. No communication
4. Very difficult

B. PARTICIPATION IN THE KAMPUNG IMPROVEMENT PROGRAMME.

9. As far as you are concern with the spirit of mutual-help, did or will you really know that your neighbour were or will be involved in the process of the KI? LB09

1. Yes

2. No

10. If Yes, what kind of activities they were or will be involved? LB10

1. Planning process
2. Concept and design plan
3. Monitoring and implementation

4. Construction
5. Maintenance
6. Administration

11. What kind of cooperation and support had or will you give to implement the KIP? LB12

1. Financial
2. Land for services
5. None

3. Willing to restructure house and/or plot
4. Would contribute labour to improvements

C. PERCEPTION AND OPINION OF THE KAMPUNG IMPROVEMENT PROGRAMME.

12. Do you think that the KIP has contributed to solutions of the urban environment in your area? LC12

1. Very big contribution
2. A little contribution
3. Don't Know

3. Very little contribution
4. Never contribution

13. What do you think about the success of KIP implemented by the Jakarta Municipality Government (DKI Jakarta)? LC13

1. Very successful
2. Rather successful

3. Seldom successful
4. Unsuccessful

D. FACTORS AFFECTING THE OPERATION AND MAINTENANCE OF THE KIP

14. Do you think the factors below can influence the operation and maintenance of the KIP in your areas?

Please tick (v) in the relevant box where appropriate.

Factors		A	B	
a.	Mutual-help among the neighbours	<input type="checkbox"/>	<input type="checkbox"/>	LD14A <input type="checkbox"/>
b.	Involvement through the activities of LKMD	<input type="checkbox"/>	<input type="checkbox"/>	LD14B <input type="checkbox"/>
c.	Community participation to sustain the KIP	<input type="checkbox"/>	<input type="checkbox"/>	LD14C <input type="checkbox"/>

Note : A = active

B = not active

15. Do you think more factors below can influence the operation and maintenance of the KIP in your area?

Please tick (v) in the relevant box where appropriate.

Other factors		A	B	C	D	E	
a.	Interest and support from Government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LD15A <input type="checkbox"/>
b.	Socio-economic conditions in Jakarta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LD15B <input type="checkbox"/>
c.	Technological aspects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LD15C <input type="checkbox"/>
d.	Cultural characteristics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LD15D <input type="checkbox"/>
e.	Operation and maintenance of facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LD15E <input type="checkbox"/>
f.	Service from Central Government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LD15F <input type="checkbox"/>
g.	Implementation procedures in local authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LD15G <input type="checkbox"/>

Note : A = strongly influenced

B = some influenced

C = not influenced

D = undecided

E = strongly does not influenced

E. SATISFACTION LEVELS TOWARD URBAN DEVELOPMENT

16. Do you think the KIP or Jakarta Municipality Government (DKI Jakarta) have effected the urban development services in your kampung?
Please tick (v) in the relevant box where appropriate.

Items		A	B	C	D	
a.	Providing capacity of education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16A <input type="checkbox"/>
b.	Providing capacity of religious house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16B <input type="checkbox"/>
c.	Health posts and centres (PUSKESMAS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16C <input type="checkbox"/>
d.	Improvement of administration procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16D <input type="checkbox"/>
e.	Providing public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16E <input type="checkbox"/>
f.	Increasing quality and quantity of water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16F <input type="checkbox"/>
g.	Providing capacity of garbage collection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16G <input type="checkbox"/>
h.	Flooding and pollution improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16H <input type="checkbox"/>
i.	Improving quality of sewerage and drainage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16I <input type="checkbox"/>
j.	Providing public services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16J <input type="checkbox"/>
k.	Providing playground and green areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LE16K <input type="checkbox"/>

Note : A = very much effected
C = little effeted

B = some what effected
D = not effected

APPENDIX 4

ADMINISTRATIVE PROCEDURES



Department of Town and Regional Planning

Sheffield S10 2TN
Tel: (0742) 768555 Ext 6180
Telex: 547216 UGSHEF G
Fax: (0742) 722199

Head of Department: Professor Charles L. Choguill

clc/vh

October 20, 1992

To whom it may concern

This is to certify that **Mr Hasan Mustafa Djajadiningrat** is registered as a full-time postgraduate student, reading for the degree of Doctor of Philosophy, in the Department of Town and Regional Planning at the University of Sheffield, United Kingdom.

Mr Hasan is sponsored by the Office of the Minister for Research and Technology/The Agency for the Assessment and Application of Technology (BPPT) in the framework of the Science and Technology for Industrial Development (STAID)/World Bank Loan Number 3134-IND.

Mr Hasan is conducting questionnaire surveys of Households in the Kampung area of Jakarta, Indonesia. This is an absolutely crucial element of his PhD research which could have considerable implications for future urban development in Indonesia. He may have to complete this survey work within a limited time period before returning to the UK.

I would be grateful if all necessary help and assistance could be provided for Mr Hasan to assist in his survey work. Relevant information and/or data regarding his survey topic should also be provided for Mr Hasan to effectively complete his thesis in the required time.

Yours faithfully,



Professor Charles L. Choguill
Head of Department



**BADAN PENGAJIAN DAN PENERAPAN TEKNOLOGI
(BPP TEKNOLOGI)**

JALAN M.H.THAMRIN NO. 8 JAKARTA 10340 - INDONESIA
TEL.: 3041 TELEX : 61331 BPPT IA; 61321 BPPT IA

Nomor : 1357/Dep.Adm/BPPT/XII/1992
Lampiran : 1 (satu) berkas
Perihal : Permohonan ijin penelitian

4 Desember 1992

Kepada Yth.

Bapak Gubernur/Kepala Daerah Khusus
Ibukota Jakarta
di-

Jakarta

Dengan hormat,

Dalam rangka Program Peningkatan Sumber Daya Manusia, BPP Teknologi mengirimkan staf untuk tugas belajar ke Inggris dengan biaya dari Project Science and Technology for Industrial Development (STAID)/Loan World Bank No: 3134-IND, yakni :

Nama : Hasan Mustafa Djajadiningrat
N I P : 68000802
Program Studi : PhD (S3) dalam Perencanaan Kota
Universitas : Department of Town and Regional Planning-University of Sheffield

dengan ini kami sampaikan hal-hal sebagai berikut :

1. Salah satu persyaratan dalam pembuatan thesis Doktor adalah melakukan penelitian dengan pengumpulan data primer dan sekunder.
2. Bidang yang akan diteliti adalah "Sustainable Development in The Kampung Improvement Programme : A Case Study of Jakarta-Indonesia".
3. Yang bersangkutan merencanakan akan melakukan penelitian dalam bidang sosial, ekonomi dan fisik di :
 - a. Kelurahan Menteng (Jakarta Pusat)
 - b. Kelurahan Kali Anyar (Jakarta Barat)
 - c. Kelurahan Pela Mampang (Jakarta Selatan)
 - d. Kelurahan Ujung Menteng (Jakarta Timur)
 - e. Kelurahan Sunter Jaya (Jakarta Utara).
4. Adapun penelitian lapangan tersebut akan membutuhkan waktu selama 2 (dua) bulan terhitung Desember 1992 dan Januari 1993. Terlampir surat rekomendasi dari Professor Charless L. Choguill-University of Sheffield.

Sehubungan dengan hal tersebut mohon kiranya Bapak dapat membantu yang bersangkutan untuk melakukan penelitian di lingkungan Bapak.

Demikian dan atas perhatian Bapak serta kerja sama yang baik diucapkan terima kasih.

Deputi Ketua Bidang Administrasi/
Ketua Tim Pelaksana STAID,


Dr.-Ing. Wardiman Djojonegoro, *Dr.*

Tembusan :

1. Kepala Direktorat Sosial Politik
- 2. Kepala Biro Pemerintahan
3. Ketua Bapem Proyek MHT Jakarta
4. Ka PusDiklat BPP Teknologi



**KEPUTUSAN GUBERNUR KEPALA DAERAH KHUSUS
IBUKOTA JAKARTA**

Nomor : 6305/1992
tentang

**PEMBERIAN IZIN MENGADAKAN SURVEY, ANGKET DAN/ATAU
POLL PENDAPAT MASYARAKAT DALAM WILAYAH
DAERAH KHUSUS IBUKOTA JAKARTA**

GUBERNUR KEPALA DAERAH KHUSUS IBUKOTA JAKARTA ;

- Membaca** : surat permohonan Ketua Tim Pelaksana STAID BPP Teknologi - Nomor 1357/Dep-Adm/BPPT/XII/1992 tanggal 4 Desember 1992 dan Rekomendasi Direktorat Sosial Politik DKI Jakarta Nomor 417/B.XII.92/P.078.6 tanggal 7 Desember 1992 perihal izin penelitian tentang Pembangunan Berkesinambungan Untuk Program Perbaikan Kampung (MHT) di Jakarta.
- Menimbang** : bahwa tidak keberatan untuk memenuhi permohonan Instansi tersebut di atas untuk mengadakan Survey, angket dan/atau Poll Pendapat Masyarakat dalam Wilayah Daerah Khusus Ibukota Jakarta.
- Mengingat** :
1. Undang-undang Nomor 5 Tahun 1974 tentang Pokok-pokok Pemerintahan di Daerah;
 2. Undang-undang Nomor 11 Tahun 1990 tentang Susunan Pemerintahan Daerah Khusus Ibukota Negara Republik Indonesia Jakarta ;
 3. Keputusan Gubernur Kepala Daerah Khusus Ibukota Jakarta Nomor 409 tahun 1983 tentang Pendelegasian Wewenang Penandatanganan Produk Hukum dan Naskah Dinas kepada Pejabat tertentu dilingkungan Sekretariat Wilayah/Daerah Khusus Ibukota Jakarta;
 4. Keputusan Gubernur Kepala Daerah Khusus Ibukota Jakarta Nomor 1680 Tahun 1989 tentang Persyaratan Untuk Mengadakan Survey, Angket dan/atau Poll Pendapat masyarakat Dalam Wilayah Daerah Khusus Ibukota Jakarta

MEMUTUSKAN :

- Menetapkan** :
- Memberikan Izin Kepada** : **BADAN PENGKAJIAN DAN PENERAPAN TEKNOLOGI (BPP - TEKNOLOGI) - Ir. HASAN MUSTAFA DJAJADININGRAT**
- Alamat** : **Jalan M.H. Thamrin No. 8 - Jakarta 10340.**

untuk mengadakan Survey, Angket dan/atau Poll Pendapat Masyarakat dalam Wilayah Daerah Khusus Ibukota Jakarta tentang :

" PEMBANGUNAN BERKESINAMBUNGAN UNTUK PROGRAM PERBAIKAN KAMPUNG (MHT) DI JAKARTA ".

Terhitung mulai tanggal : 14 Desember 1992 s.d. 28 Pebruari 1993.

Jumlah Petugas sebanyak : 10 (sepuluh) orang.

Jumlah Responden :

Pemegang Izin tersebut diatas wajib menyampaikan laporan tertulis mengenai hasil Survey, Angket dan/atau Poll Pendapat Masyarakat yang telah dilakukan kepada Gubernur Kepala Daerah Khusus Ibukota Jakarta c.q. KepalaBiro Bina Pemerintahan dan Kepala Pusat Penelitian dan Pengembangan Perkotaan dan Lingkungan DKI Jakarta sesuai dengan Pasal 5 Keputusan Gubernur Kepala Daerah Khusus Ibukota Jakarta Nomor 1680 Tahun 1989 tentang Persyaratan Untuk Mengadakan Survey, angket dan/atau Poll Pendapat Masyarakat Dalam Wilayah Daerah Khusus Ibukota Jakarta.

Ditetapkan di : J A K A R T A

Pada tanggal : 10 Desember 1992

a.n. GUBERNUR KEPALA DAERAH KHUSUS
IBUKOTA JAKARTA

PLH Sekretaris Wilayah/Daerah



H. EDDY RUCHIJAT SOHEH, SH
NIP. 470009681

TEMBUSAN : Keputusan ini disampaikan kepada Yth.

1. Yang bersangkutan ;
2. Instansi, Kepala Wilayah (Walikota, Camat) dan Lurah yang bersangkutan