DECIDING WHERE AND HOW TO INTERVENE:
Information Systems and Decision-Making Structures for Planning Improvement of Urban Low Income Settlements

by

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ABSTRACT

This thesis builds a framework which aims to help policy makers to redistribute decision-making power so that decisions can be made at the appropriate levels. The principal question addressed here is: how do you relate decision-making regarding urban low income housing, to the different information-holders in order to structure a more participatory and efficient process?

Of vital concern is the political process involved in planning for low income settlement improvement. It is an accepted fact that rational planning models neglect and/or impede these processes, while highly politicize models tend to abuse it. It is argued here that an appropriate planning approach should be based in establishing a decision-making structure which recognizes and incorporates the political process, by enabling the people who are more immediate to a particular situation to make the key decisions at that level. The critical factor that this thesis addresses is how to use the "implicit" information, possessed by the different actors, in a way that only where decision-making territories need to be connected, information is made explicit.

In this light, the notion of " complementary decision-making territories" --as the appropiate model for establishing a planning process which devolutes and redistributes decision-making power -- is proposed.

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CONTENTS:

TO MY WIFE ISABELLA
AND
OUR SON CRISTOBAL

INTRODUCTION

During my first visit to Sri Lanka, on December 1984, I recall being deeply frustrated when I found out how politicized the whole planning context behind the Million Houses Program was. I remember commenting on this discovery to my professors Nabeel Hamdi and Reinhard Goethert, when we were together in Sri Lanka. After the initial euphoria of seeing the successful results of the Sri Lankan housing policies and approach to settlement improvement, I began to see the whole program as politically manipulated, and somehow full of empty slogans. I felt at that time that we, as the MIT team, were also part of this manipulation. Our role was more to legitimize the whole process, rather than to be advisors for it. My professors patiently listened to my frustrated and impulsive comments, and then tried to present me with some hard facts of life.

With more time and further reflection on some later experiences, I began to understand the message which they were trying to put across. I came to learn that few processes which involve decisions regarding the development of a society are free of politics. Moreover, I understood that the political machinery behind the Million Houses Program was one of the vital engines which was making this program and others fly. Therefore, it was naively utopian to conceive a planning process which could substitute the rich political process that was in front of my eyes, with a more rational and professional approach.

On our second visit, on the summer of 1985, I had the opportunity to witness some of the activities involved in the Urban Sub-Program of the Million Houses Program at first hand. Through them, I had the chance to experience one of the most extreme top-down and on-the-spot decision-making processes that I could ever imagine occuring.

In particular I am referring to one of the Prime Minister's monthly visits to his electorates. In such a visit, he gets together all the top managers of the numerous agencies involved in housing and urban development in Sri Lanka and Colombo. There, on the site he gets all the agencies aligned behind him, and instructs them on actions to be taken for the improvement of the low income settlement that they happen to be visiting.

The decision-making process looked, and was to a major extent, substantially hierarchical and top-down, but the whole process was basically initiated by the organized lobbying of the community through political figures. In this case, the figure being appealed to was the Prime Minister himself. What we witnessed was the culmination of a rapid process of negotiation and plan formulation which was to be used for political promotion of the party in power. What this act of power was principally doing was to make the political commitment to some agency's plan explicit, and moreover, to coordinate and ensure the allocation of resources and participation of other agencies to the project so that its success could be garanteed.

Nevertheless, not all the decision-making processes that I observed were as extreme as the one presented. The other processes that I saw varied considerably in their approaches and results, even though they were framed under practically the same policy.

My diverse experiences made me question several soft and clinical assumptions behind the theoretical knowledge about planning improvement of low income settlements that I was able to absorb while studying at MIT. But what is more important, it became evident to me that the key issue featured in any policy for settlement upgrading was the decison-making process that this policy generated and structured.

Many questions came into my mind:

- How do you go about deciding where and how to intervene in improving low income settlements? How can this be done in such a way that you loose the inherent vital political process. How, instead can you redirect its energy so as to get the best out of it?

- What information is needed in order to decide on the above issue? Who should be making what decisions? What relationships should be established between information-holders and decision-makers in order to formulate a more ad-hoc and sensitive process?

- How do you go about redistributing decision-making power among the many actors involved in the upgrading process? How do you do this in such a manner that you enable decision-making territories to be established that complement, rather than cancel each other out?

- How can you enable the establishment of a decision-making structure that increases policy-makers ability to learn from what is happening in the field? Consequently, how can you make the whole process an experimental one, where feedback and communication between actors are incorporated as a normal part of the process?

Many of these questions were precisely what my professors were trying to deal with at MIT, inside the classrooms, and at Sri Lanka in the field. They were trying to deal with these issues in such a way that theory could guide practice and practice could inform theory.

The MIT/NHDA Joint Research has been a valuable opportunity to attempt to capitalize on this symbiotic relationship, and it has been used as a means to experiment with a third category -- which is thought to fill the gap between theory and practice-- , one of methods and procedures. Methods and procedures, are understood to be the only things that are replicable from one situation to the other, and thus, the only category of ideas that can really be generalizable while guiding practice.

The MIT/NHDA Joint Research Program has been quite successful in bringing theory to guide practice through the development of various guidelines and operational procedures, but rather weak in informing a developing theory. Further stages in this research project suggest that there is aneed to focus on learning from what has already been done, drawing general conclusions as a way of advancing theory.

Through this thesis I want to join this effort by attempting to find out --precisely through observation and analysis-- what can be learnt from how decisions are made while improving low income settlements, especially the relationships established between information use and decision-making structures. Therefore, an attempt is made to uncover what could be generalized as theoretical principles in establishing appropriate decision-making processes for improving low income settlements.

With this general objective in mind this study will elaborate on the above question through three stages:

Section 1: The development of an analytical framework and elaboration of key concepts on information and decision-making, which will then be analyzed through the case study of Sri Lanka.

This part will address the following questions:

a) What levels of decision-making and groups of activities can be recognized in the process of resolving where and how to intervene?

b) How are information needs generated within the decision-making process, and how is this information transferred within decision making structures?

c) How are decisions made?, thus, how are effective and appropriate relationships established between information-holders and decision-makers?

d) What type of information is used by different kind of decision-makers, and how do different types of information bring about different decision-making approaches?

e) How is information transferred and how do various actors communicate within a decision-making structure? How do different relationships between actors affect decision-making?

Section 2: An examination of the case of Sri Lanka as representative of an attempt to implement a nation-wide support-oriented housing policy with emphasis on urban upgrading. This part will focus on understanding

the actual relationships between information and decision-making which took place on both program and project level. It will specially point out the consequences of such relationships with regards to the way these decisions were made, as well as, the impact they had on the whole improvement process.

To clarify these issues two cases will be presented and analysed:

a) The program decision-making process that takes place at the Colombo Housing and Community Development Council (HCDC), while developing and implementing the Colombo Urban Housing Program.

b) The project decision-making process that took place in the case of the upgrading project for Wanathamulla shanty area. Three very different planning approaches implemented there are examined in detail.

The objective of this section is to present hard cases from which to derive lessons for the subsequent review of current theory and practice on the matter.

Section 3: A review of the case material examined in order to draw some lessons and principles on information and decision-making.

The purpose of this section is to discover the limits of current practice, as well as to summarize the cases' alternative theoretical interpretation made on the previous section.

The final objective will be to enunciate some basic principles on how to enable the development of an appropriate decision-making process which could allow greater participation and increase efficiency, in the process of upgrading low income settlements.

SECTION 1
ANALYTICAL FRAMEWORK

1.0. ANALYTICAL FRAMEWORK: KEY CONCEPTS IN INFORMATION AND DECISION-MAKING

Since the key issue at hand is the understanding of the relationships between different information types and uses and decision-making process established while improving urban low income settlements, it is important to develop a general analytical, conceptual framework. This framework should clarify actors, activities, responsibilities and their relationships in the cases to be analysed.

Within this perspective this section of the thesis will focus in understanding: 1) decison-making levels and groups of activities around which decision-making takes place; 2) information needs and transferral within the decision-making process; 3) relationships between information-holders and decision-makers, and how this influences the structure of decision-making; and 4) information and communication within the decision-making process, while improving low income settlements at the local government level.

These issues evolved from a preliminary reflection on the cases that are presented on Section 2, as to identify, in general, which issues are interesting to examine while analysing decision-making processes. Therefore, certainconcepts are developed here in order to clarify a language and construct the basis for an advanced theory.

1.1. GROUPS OF ACTIVITIES AND LEVELS OF DECISION MAKING

When institutions and professionals are involved in delivering services and products, they tend to divide the delivering process into somewhat linear stages which progressively advance to ward a preconcieved goal. In doing so they group activities and organized personnel under general headings such us: planning, design, implementation, testing, research, monitoring etc. The purpose is to structure activities in a way that they can be monitored and control every stage of the production. In the case of Sri Lanka this is very much what happens inside the institutions dealing with low income upgrading. There you can find Formulation Units, Implementation Units, Administration Units and Monitoring Units, which try to specialize in different stages or aspects of the delivery process.

This thesis will argue that upgrading related activities --because upgrading is by nature a process in itself rather than a product--, should be performed in an integrated manner and should not be divided into production stages delivered by different actors. The division of the process into groups of activities could only serve the purpose of analysing the delivery process in order to learn about what has been done, and should not organize the whole process.

With these ideas in mind this study has grouped activities related to the improvement of urban low income settlements, under some general headings. The grouping does not necessarily imply the existence of clear boundaries between these categories. Moreover, activities take place in a highly overlaping manner in time and space, and normally do not follow a linear and/or logical process. The division is made here only to simplify analysis and make it possible to focus on the issues being discussed.

The general headings are:

1. **Formulation & programming**: deciding what activities need to be carried out, as well as establishing how and when.

2. **Implementation & coordination**: carrying out activities and harmonizing actions.

3. **Management & administration**: supporting all groups of activities on a day to day basis, as well as organizing further maintenance of actions' outcomes.

4. **Monitoring & evaluating**: keeping track of activities and measuring their impacts on the system.

This grouping of activities is valid for two different but highly related levels of decision-making:

1. **Program decision-making level**: decisions related to an overall set of activities that form the basis of the intervention in the urban low income settlements within a local authority. These decisions have an impact on the whole low income settlement system, with its physical, human and activity subsystems.

2. **Project decision-making level**: decisions related to a particular set of activities that form the basis for intervention in a limited area. These decisions do not always have an impact on the entire low income settlement system, but only on a limited area.

Decision-making at the program level affects decision-making at the project level, setting up its terms of references and delimiting the scope of activities that can take place on project level. On the other hand, decision-making on project level does not always affect decision-making at the program level. The impacts of decisions made on project level are likely to remain within the boundaries of the project area, and only the officers directly involved in the project are likely to learn lessons from the process.. This is mainly due to the lack of mechanisms which might enable senior managers or policy-makers to learn from what is happening on the ground level.

Traditionally intervention in low income settlements is characterized by a hierarchical relationship with the program dominating the project, and little if any feed-back on the ongoing process at the top of the decision-making structure. Feed-back is often restricted to post evaluations which serve the purpose of political legitimization or professional justification of the decisions made.

Unless more appropriate ways of informing decision-making on all levels, and proper communication channels are established between program and project decision-making, housing policies emphasising program delivery will tend to overlook the impacts created on the ground level. Moreover, if upgrading housing policies are to have a higher probability of meeting their objectives, it is believed that adequate mechanisms --which allow learning from ongoing intervention that, in turn, facilitates policy and procedures adjustment-- should be deviced. In other words, adequate feed-back should become an intrinsic part of the nature and structure of the low income settlement programs.

The activity grouping and levels of decision-making descrived above will be used as a general framework to look at the case of Sri Lanka. It will serve the purpose of structuring analysis and help to focus on the particular use and handling of information on each level of decision-making, concentrating on two general areas of activities: **Formulation and Programming** and **Implementation and Coordination.**

1.2. INFORMATION NEEDS AND TRANSFER WITHIN THE DECISION-MAKING PROCESS

One of the crucial issues which determines how decisions are made is how information needs are established, (see appendix 1, Information Needs). It is generally agreed that in order to decide which cources of action should be taken to address a particular issue, you have to have some basic information regarding the issue in question. Nevertheless, there is no agreement as to how to decide which particular information is needed to make this decision. The traditional approach suggest that

no matter what issues you will need to address , you just go and collect data under some relatively standardized headings that feature in almost any low income settlements surveys.

These surveys vary their emphasis on physical features, socio-economic data or community organizational characteristics of. However, in general, they tend to stress on quantitative data based on educated opinion. Data is sometimes collected merely for the sake of collecting it, with no clear purpose as to how it is going to be used to make decisions, or to serve the monitoring purposes of an international funding agency, or even to validate decisions and actions already taken from a political point of view.

A more sensitive approach would suggest that information needs should be generated out of the awareness of a particular phenomenon which needs to be considered. In other words, information should be collected with a clear understanding of how it will be used to make decisions. The purpose of data gathering is to elucidate the options available in addressing any particular problem.

In the case of Sri Lanka all these approaches appear to have been adopted in one form or another. This will be demonstrated in the analysis of Section 2 of this thesis. Nevertheless, it is appropriate to clarify that all these approaches are based on a common assumption, which relates to the need of acquiring data and processing it into explicit information, as well as the need to disseminate this explicit information throughout the decision-making structure.

This thesis argues that the making explicit of information could be kept to a minimum, if decision-making power is redistributed to the different actors on the basis of their possession of information regarding a particular problem and their knowledge of the possible options to address it. In other words, information needs for explicit information should be kept to a minimum by devising a decision-making structure which capitalizes on the "implicit" information possessed by the different actors. The assumption is that each actor already has enough information to decide the courses of action to address most of the problems. Any attempt to formally acquire this information will

result in artificially segregating valuable information or in focusing on irrelevant issues. Therefore increasing inefficiency and inequity in the upgrading process.

Meanwhile, for the purpose of clarifying part of the conceptual language to be used in this thesis, some categories related to how information needs are generated must first be established.

As it has been mentioned earlier, information needs are generated out of a question or set of questions regarding the **nature** (structure) or **state** (performance) of the low income settlement, (see appendix 1, Information Needs). These questions are categorized for the particular interest of this thesis in relation to two aspects: 1) the degree of **predetermined** versus **ad-hoc procedures** involved in determining the questions of interest, which in turn are characterized by, 2) their focus on either **baseline** (pre-action) situations or **consequential** (during and post-action) situations resulting from any action taken.

Four types of questions can then be identified according to their emphasis on the above aspects:

1. a) **Predetermined:** questions which are relatively standardized and do not respond to any particular characteristic of each different low income settlement situation. Decision-makers arrange to carry out standardized surveys which contain predetermined questions and involve prescribed ways of collecting and processing data. The resulting information presents no clear connections with its potential use in decision-making.

   For example, baseline surveys, or enumeration surveys, where questions revolve around physical characteristics (quality of dewellings, level of services, level of infrastructure provision, etc.), socio-economic characteristics (age, sex, marital status, household composition, average size of households., employment status, monthly income, housing expenditure, willingness to pay, etc.), as well as community organization characteristics (leadership, existing groups, number of members, activities, etc.). (see appendix 3 and 4)

b) **Ad-hoc**: questions which are generated from a general understanding of a low income settlement situation that makes it possible to focus on phemomena of interest. Decision-makers resolve pertinent questions and elaborate appropriate mechanisms to gather and process data, into **usable** information. The resulting information is more likely to be useful for making potential decisions , because information needs were generated from the awareness of the existence of a particular phenemenon.

For example, in the case where interviews to residents or informal community meetings are carried to address a known problem in the area. Questions that feature revolve around especific phenomenae like: when does the settlement get flooded?, which areas are more subject to it?, what do residents do in this cases?, where does affected families move?, how long does it last?, etc.

3. **Primal**: questions regarding the baseline nature (structure) or the baseline state (performance) of the low income settlement situation, (questions at the planning stage).

4. **Consequential**: questions arising from the execution of an action. These attempt to understand more about the nature and the state of the low income settlement situation by studying its reaction to the program.

The following category tree of information needs can be constructed: (see Fig. 1.1)

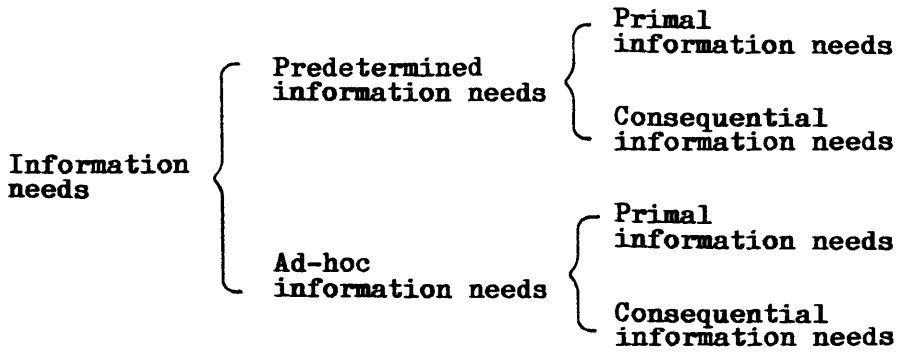


Fig. 1.1: INFORMATION NEEDS CATEGORIZATION TREE.

In general, any of these information needs categories are commonly associated with very different decision-making approaches. The differences in the nature of the questions which generate the information needs is illustrative of what spirit is guiding the decision-making process.

Predeterminated information needs are likely to be present in top-down and, hierarchical, non-participatory decision-making approaches, where decision-makers are relatively removed from the actual low income settlement situation, --which is the case of much policy and/or program decision-making, when there is a need to come up with aggregated quantitative ionformation. On the other hand, ad-hoc information needs are more likely to appear in bottom-up and participatory decision-making processes, because they are generated from tangible issues which needs resolution. Similarly, the emphasis on consequential information needs, over primal information needs, is more typical of a decision-making process where feed-back from the diverse actors on the impacts of the actions taken, is of relevance. This emphasis is characteristic of a more participatory decision-making process.

1.3. RELATIONSHIPS BETWEEN INFORMATION-HOLDERS AND DECISION-MAKERS: HOW ARE DECISIONS MADE?

The question of how decisions are made bring one to examine the relationships between the ones who **posses** information, **information-holders**, and the ones have the **power** to make decisions, **decision-makers.** This relationship becomes a crucial aspect of the process, especially when, in order for a decision-maker to have explicit information on a particular issue, rather complex mechanisms have to be set in motion. Such mechanisms determine, to a major extent, the level of participation of the actors involved in the upgrading process.

The current information system theory (see appendix 1, Components of a Generalized Information System), stresses the division of functions within an urban information system, to the extent that different actors get specialized in different functions, in order to keep an information

flow going. For this reason, people who gather data are different from the ones that process and disseminate information, and these, in turn, are different from the ones that use it to make decisions and the ones who carry them out. Consequently, information is transferred from one actor to the other in different forms and modes, increasing the chances of interference and miss-interpretations.

Another consequence of these approach is the distance that it establishes between the subject, --the low income settlements-- and the ones who decide on courses of action. It is assumed that detached decision-makers in possesion of unbiased information can make decisions in a more objective way. The consequences of these assumption are numerous and they will be addressed further on.

A more appropriate approach might be to reduce the division of functions, --in order to diminish information transferal and interference by integrating information-acquisition and decision-making into one body-- and, to reduce the distance of decision-makers from the low income settlement situation. This means moving decision-makers into a possition of closer proximity to the low income settlement, assuming that they will have better access to more useful and unbiased information. (see appendix 1, Information Systems and the Real Environment)

Nevertheless, in any of these approaches and their variations, there is a common assumption. This assumption relates to the notion that whatever relationships are established between the low income settlement, the information holders, and the decision-makers; the resulting decision-making structure is suppose to deal with questions at all different levels, e.g. resolving infrastructure financing procedures, infrastructure main lines layout, individual connections, and design of latrine systems. However, this does not take into account the possibility that different relationships could be established for resolving different levels of issues.

This thesis argues that there is not one structure or one model of decision-making which is appropriate for resolving all issues involved in upgrading low income settlements, but a combination of approaches,

where each one addresses questions on different levels, but where all of them are interrelated and overlap to some degree.

Meanwhile, it is important to clarify the possible relationships that could be established between the low income settlement, the information-holders, and the decision-makers, while resolving appropriate courses of action.

All decision-making, whether logical or irrational, uses some kind of information to resolve policies, strategies and actions to be taken. This information may be obtained through diverse mechanisms, that can include a number of stages and actors. (see appendix 1, Components of a Generalized Information System). But in all of these mechanisms can be recognized some form of **observing and measuring** phenomena, **processing** data, and **storing** information concerning the low income settlement systems. These mechanisms are used either to **disseminate** and **store** information or eventually to **make decisions.** (see Fig. 1. 2) On the other hand, in terms of actors, at least **information-holders** and **decision-makers** can be also identified at the inside of the decision-making process.

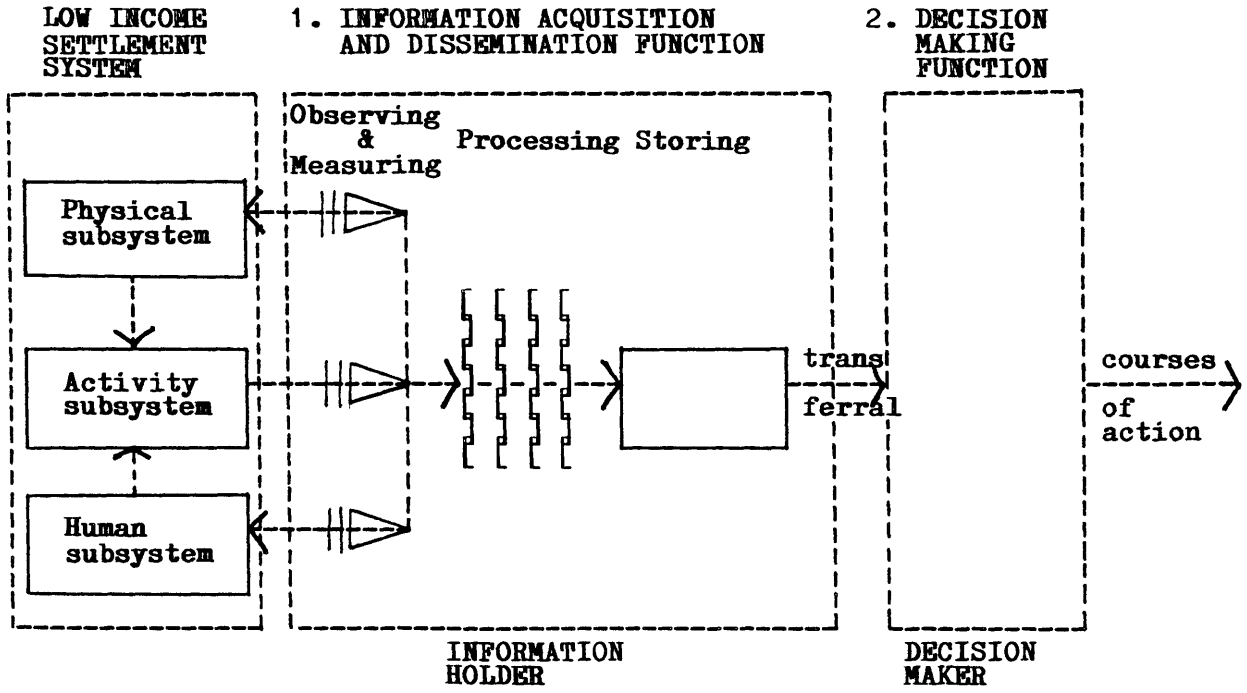


Fig. 1.2: GENERALIZABLE INFORMATION GATHERING AND TRANSFERRAL MECHANISM

Information-holders are not necessarely the ones who perform the special task of gathering, processing, storing, and disseminating information to decision-makers. They can simply be the ones who **posses** some kind of information (**implicit information**) about the nature or state of any specific aspects of the low income settlement. Their nomination as information-holders --in the context of this thesis-- does not depend on how they have acquired information, but on their status in terms of their level of involvement with the situation. This will be demonstrated later.

Decision-makers are either individuals that act alone, or groups of individuals that act on the basis of some kind of consensus. Each of them has clearly delimited boundaries of action, which comprise a **territory** (1) within which they can decide about things. The "**size**" of this decision-making territory is mainly determined by the level of **power** and **control** the decision-maker posseses. Among the many factors of which these territories are compromised, the present work will focus on **information.**

The relationship between the low income settlement system, the information-holder and the decision-maker is of major interest and worth analysis. Two variables are relevant to consider in examining these relationships:

1. The **level of involvement** of the information-holder and/or the decision-maker with the low income settlement situation. By this is meant their **level of awareness** or **knowledge** of the state and performance of the low income settlement, which in some cases could be **level of proximity** or **immediacy** to the situation.

2. The **distance** between the low income settlement, the information-holder, and the decision-maker, in relation to the **number of transferrals** that need to take place to keep a flow of information.

(1) territory: the concept has been used because of its connotation in relation to power, control, etc. It is not therefore to be confused with spatial territories, although they can coincide.

Based on these variables, some working concepts and models have been constructed, which may help to better understand the differences between diverse decision-making structures and the way in which they gather, transfer, and use information, in relation to the decision-makers themselves:

1. **Coupled information/decision-making**: where information-holders act also as decision-makers or vice-versa:

   a) **1st level**: when close to the context information-holders also act as decision-makers. (see Fig. 1.3)

   b) **2nd level**: when remote information-holders also act as decision-makers. (see Fig. 1.4)

2. **Decoupled information/decision-making**: when information-holders and decision-makers function independently:

   a) **1st level**: when close to the context information-holders transfer information directly to decision-makers. (see Fig. 1.5)

   b) **2nd level**: when remote information-holders transfer information to decision-makers. (see Fig. 1.6)

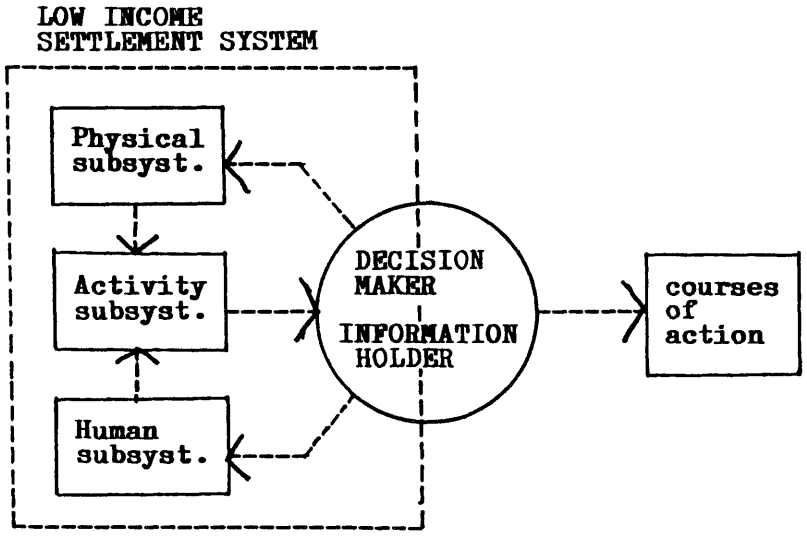


Fig. 1.3: COUPLED INFORMATION/DECISION-MAKING 1ST LEVEL

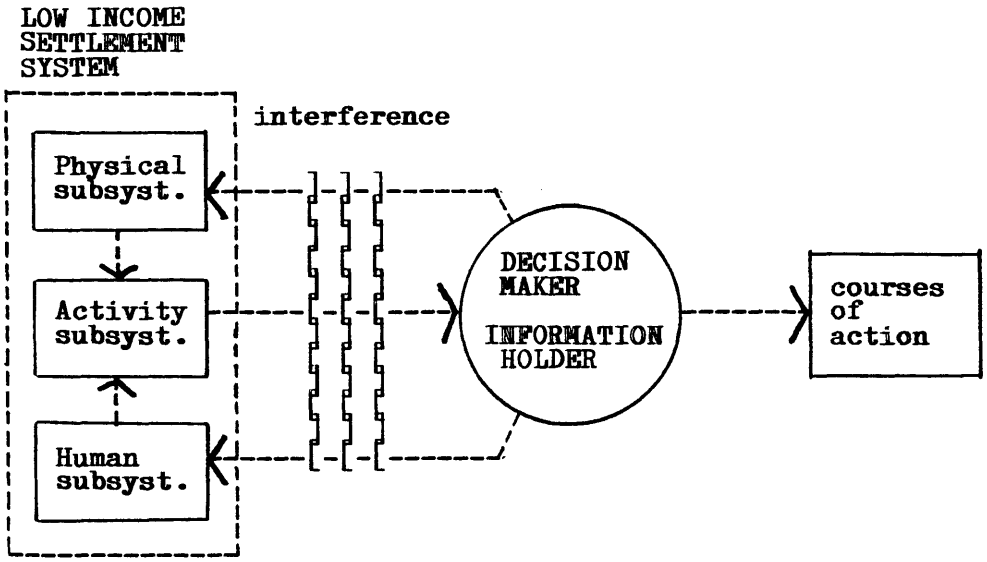


Fig. 1.4: COUPLED INFORMATION/DECISION-MAKING 2ND LEVEL

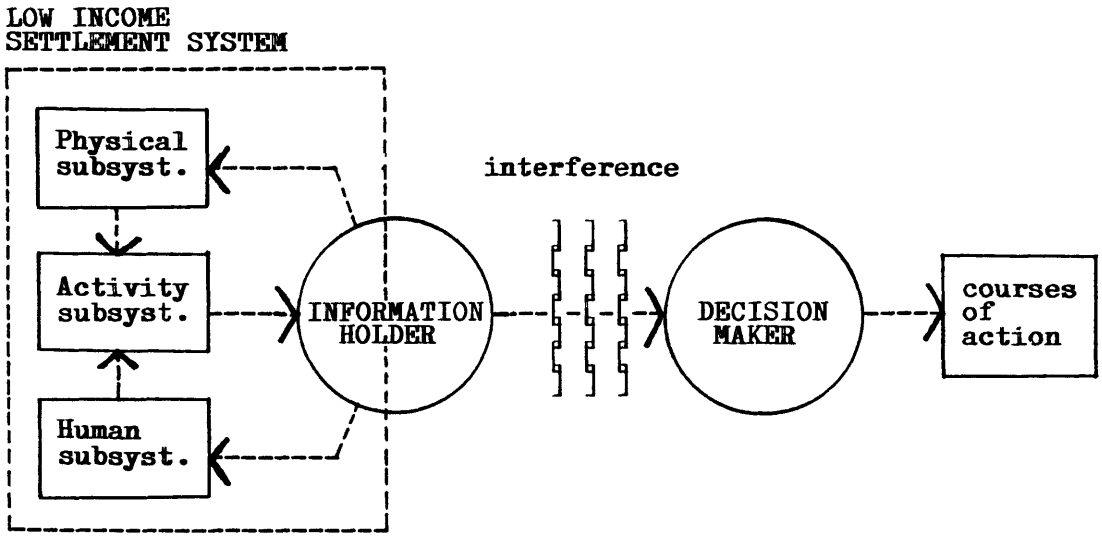


Fig. 1.5: DECOUPLED INFORMATION/DECISION-MAKING 1ST LEVEL

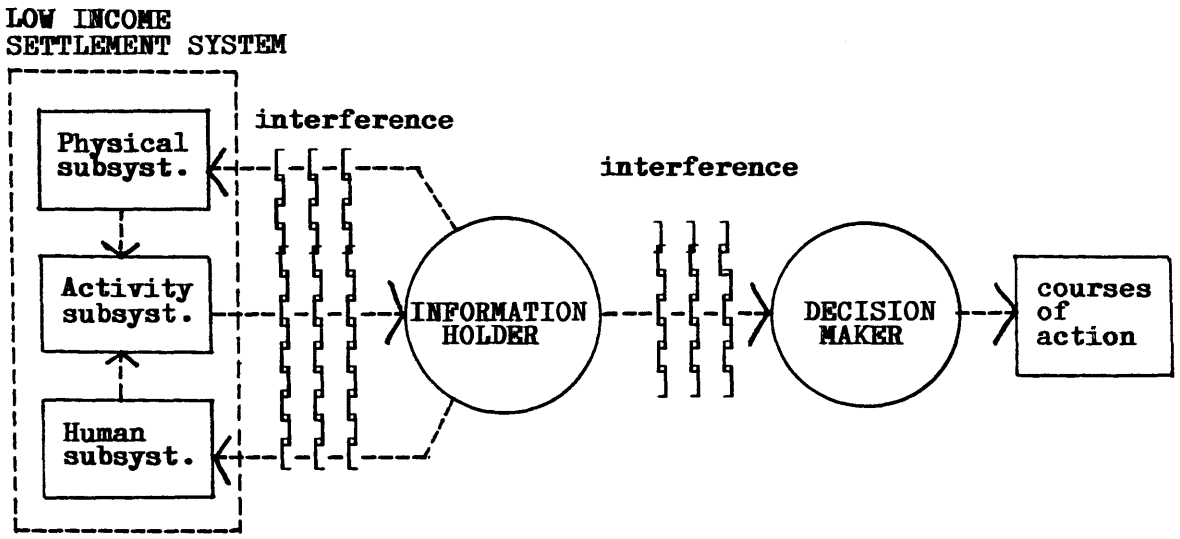


Fig. 1.6: DECOUPLED INFORMATION/DECISION-MAKING 2ND LEVEL

Some assumptions, which can help establishing a base to understand these relationships, can be made:

- The **less involved** the information-holder is, with regards to the low income settlement situation, the **greater** are the possibilities of using **incorrect information** or of focusing on **irrelevant information** about the low income settlement situation. The more **removed**, the higher the risks are. On the contrary, the **more involved** the informant is with the situation the **less** the possibilities of acquiring **incorrect information** or of focusing on **irrelevant information.** Therefore it can be assumed that for some levels of questions, **residents** are in a better position or have a **higher** chance of possessing **correct** and **relevant** information on some aspects of the low income settlement situation than non-residents.

- The **larger** the number of information **transfers** (between residents, surveyors, analists, processors, and finally decision-makers), the **greater** the possibilities of **interference** affecting the information transferral, thus, the **higher** the probabilities of **biased information** at the end of the process. On the contrary, a **smaller** number of information **transfers, lessens** the possibility of **interferences** affecting the process, therefore, diminishing the generation of **biased information.** It is then assumed that the **fewer** the **intermediaries** between **resident-informants** and **decision-makers** the **higher** the chances of gaining **unbiased** information. Moreover, in most cases if the immediate information-holders act also as decision-makers, the posibilities of deciding upon the correct course of action are increased.

Nevertheless, it is important to clarify what appears to be somewhat simplistic assumptions. To the positive relationship established between **immediacy** to the low income situation and the use of appropriate and **relevant information,** it is crucial to introduce the issue of **different levels of questions** to be resolved. Thus, in the case where questions are of a level beyond the information base of the most immediate actors (the residents), it may be assumed that other actors, who are one slightly involved in the situation, may possess the needed relevant information to resolve those questions. In other words, the assumption is valid if by understanding that more complex questions require familiarity with multiple situations, --(for example, in the case of the layout of a main water line, the decision-maker will have to be familiar with the location of existing trunk lines, future planned water lines, resistance of the soil, level of pressure, etc.)--, we can still talk about the existence of one actor who is more immediate to the whole situation.

1.4. INFORMATION AND COMMUNICATION WITHIN THE DECISION-MAKING PROCESS

A final aspect to focus on while analyzing decision-making is how participating actors communicate within the decision-making structure. It is especially interesting to look at the transfer and sharing of knowledge between the actors involved in existing problems, the available options and their consequences.

Traditional top-down decision-making involves handling options and choosing from them at the top level, later transferring these decisions to the grass roots actors. Communication between actors is basically limited to conveying information on decisions already taken, in tends only to occur in one direction (unidirectional), from the top down, without seking any substantial feed-back from the grass roots actors. Top level decision-makers resolve practically all the issues featured in low income settlement upgrading, from general procedures to detailed physical design, limiting to a major extent the participation of other actors.

A more sensitive approach, --known as the bottom-up approach--, suggests increasing participation of grass roots actors to the extent that they get involved in defining problem and priorities, as well as, deciding on optional course of action. This participatory approach sees the role of top actors as the ones who clarify options and consequences to grass roots actors; decisions are then made through negotiation between actors. Communication between actors tends to be in two directions; it involves the transfer of information and requires feed-back. Generally speaking, it becomes necessary to arrive at a concensus. Inevitably if this approach is compared to the traditional top-down process, it is a more time consuming one.

These two approaches and their variations can readily be illustrated through the case of Sri Lanka, which appears in Section 2 of this thesis. At this point some of the key assumptions behind them are further analysed.

These two approaches are based on different assumptions, but they share some common aspects:

1. They both assume a clear hierarchical relationship between actors, whether the emphasis is on top-down or bottom-up processes. This results in a decision-making process that is vertically structured.

2. They both assume that whatever decision-making structures and relationships between actors are established, they can deal with issues at all levels, from general policies and procedures to detailed physical design. This results in an all encompassing decision-making structure.

This thesis argues that there is a need to emphasize horizontal decision-making within the structure. This means, that issues on different levels should be resolved by different actors, on the basis of their knowledge (implicit information) of a particular issue. Thus, the emphasis should be placed on enabling the creation of horizontal decision-making territories, where vertical communication between actors' territories should put stress on feed-back from the bottom-up, as well as on harmonizing decisions in the regions where territories overlap.

In particular it is important to clarify some concepts related to communication and decision-making, which will be used while analysing the case of Sri Lanka.

Two variables are relevant to examine:

1. The **direction** of communication of options and consequences, and/or decisions already taken, within the decision-making structure and the degree of emphasis placed on feed-back from other actors.

2. The **degree of comprehensiveness** of decision-making. This could entail the existence of one decision-making territory which resolves questions at all levels, or the division of decision-making into various territories which address questions on different levels.

With regards to the direction of communication established between the different actors involved in the decision-making proces, two extreme categories are defined:

1.a) **Unidirectional communication/decision-making structure:** where information of available options and consequences, and/or decisions already taken are communicated in one direction --most likelly top-down--, to other actors. In this case, there is no real interest in any feed-back coming from the other actors, or at least feed-back does not affect decisions already taken. (see Fig. 1.7)

b) **Bidirectional communication/decision-making structure:** where information on available options consequences, and/or decision taken flow in both directions within the structure. Feed-back is expected and wanted in order to verify decisions. (see Fig. 1.8)

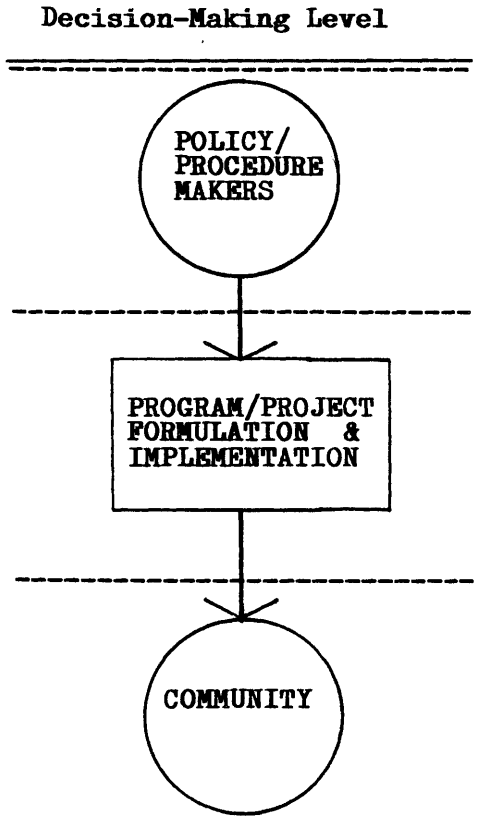


Fig. 1.7: Unidirectional communication/decision-making structure.

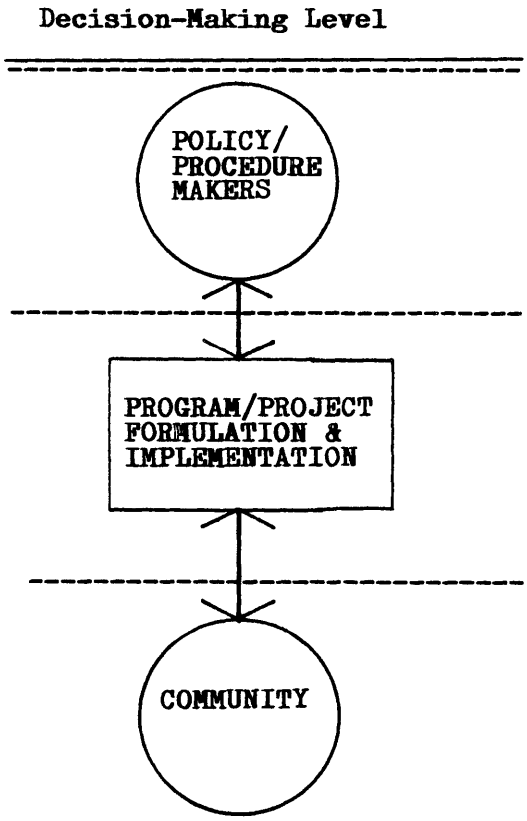


Fig. 1.8: Bidirectional communication/decision-making structure.

In relation to the degree of comprehensiveness of a decision-making structure, again two categories can be presented:

2.a) **Vertical decision-making**: when decision-making attempts to cover all levels of issues, and is ussually performed by one actor, who then transfers decisions made to the other actors in the structure. There is one territory which encompasses all the decision-making area. Thus, there is no stratification of decision-making. (see Fig. 1.9)

b) **Horizontal decision-making**: when the existing decision-making area is divided into territories among the different actors. Decision-making territories correspond to different levels of issues to be resolved. Thus decisions are made by different actors, at different levels, and then they are transfered within the structure. (see Fig. 1.10)

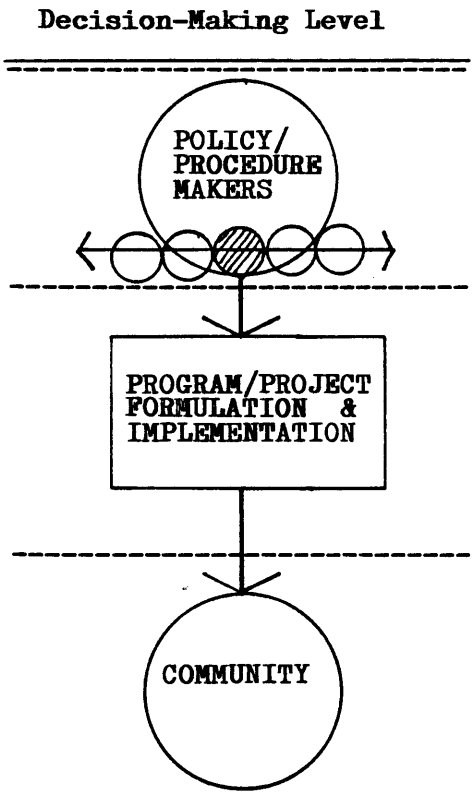


Fig. 1.9: Vertical decision-making structure.

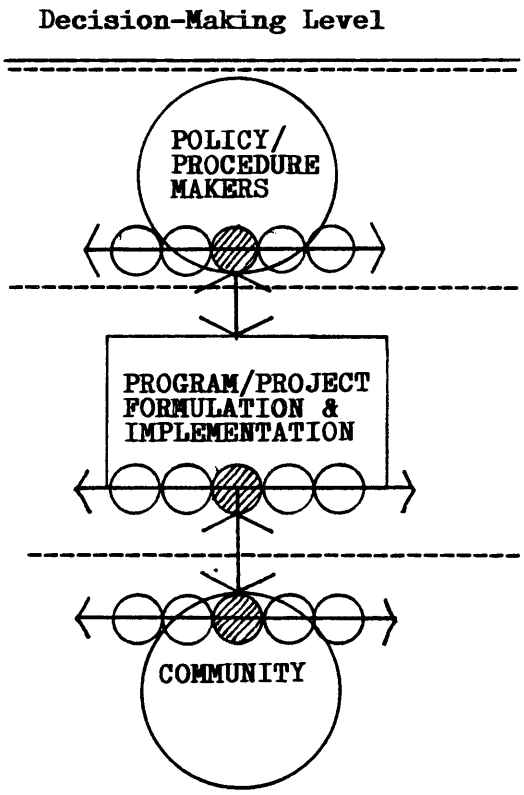


Fig. 1.10: Horizontal decision-making structure.

It is unlikely that these categories appear in a pure form, but rather in combinations of them. Nevertheless a clear stress on one or more of these categories may be identified in any decision-making process .

1.5. LIMITS OF THE ANALYTICAL FRAMEWORK

This analytical framework does not pretend to cover all the issues involved in low income settlement improvement, but focuses on some aspects which the author thinks are relevant for this research. The concepts and assumptions presented here are personal and explorative, and as such, they need to be further developed in the future.

Some preliminary hypotheses have also been included here, for the purpose of providing the reader with an horizon while following the unfolding arguments of the thesis. After going through the case studies, they will be reformulated as potential lessons and principles about information and decision-making in the context of low income settlements.

Finally it is important to mention that this section of the thesis, apart from helping to clarify the thesis focus to the author, is intended to clarify a language which potentially will serve as a base to advance theory.

SECTION 2
THE CASE OF SRI LANKA

2.0. THE CASE OF SRI LANKA

The case of Sri Lanka has been selected to be examined in this section of the thesis, not only because of the author's personal experience in a case which is also an important part of the current MIT research agenda, but because of being a case where actors and decision-making processes are clearly identifiable and rich in variety.

The objective is to use the case of Sri Lanka to see what can be learned from how decisions are made while resolving where and how to improve low income settlements, and thereby, providing a means for improving existing decision-making approaches and contributing to advanced theory.

As a way of introducing the reader to the case of Sri Lanka, a brief description of the Sri Lankan housing policies, upgrading experience, and institutional set up, is given. Then, two cases are examined in detail using the analytical framework presented in Section 1:

1. The program decision-making process that takes place at the Colombo Housing & Community Development Council, while formulating and implementing the Colombo Urban Housing Program.

2. The project decision-making process that took place in Wanathamulla shanty area upgrading, where three very different approaches are to be examined.

2.1. SRI LANKAN HOUSING POLICIES AND URBAN LOW INCOME SETTLEMENTS: UPGRADING EXPERIENCES & APPROACHES.

Improvement of urban low income settlements in Sri Lanka has been a relatively recent priority in the Federal Government's housing policies. Previous housing policies ,since 1956, attempted to deal with the existing urban low income settlements by embarking on large scale slum and shanty clearance and the construction of new housing units. The new housing schemes were based on minimun standards and included high subsidies so as to make housing available to lower income people. The intention was to provide "proper" alternative housing for those living in substandard conditions in slums and squatter areas. The results were not that successful. The units built ended up in the hands of middle income groups, and well connected civil servants who happened to have easy access to this subsidized rental housing; the bulk of the urban low income population found their way into other slums and shanty areas.

Economic growth slowed down during the 60's, and it became impossible to maintain the same level of sector spending and subsidies. In the early 70's, the government, under a communist Prime Minister, was inclined to find a more optimal use of the limited financial resources. The efforts resulted in the introduction of various measures based on state-control, which attempted to reduce private speculation in the housing sector. This is how rent control and anti-eviction statutes came to be implemented, helping a large number of poorer families living in rental slums, who otherwise would have been forced out due to pressures of the market. On the other hand, these measures were also subject to strong criticism, considering their negative impacts in terms of accelerating housing stock decay and creating stagnation in the private housing industry. In trying to address the issues of environmental decay of the rental slums and the lack of activity of the private sector, the government set up a Common Amenities Board (CAB) and began undertaking direct construction of houses and self-aided programs, with their own financing, for low and middle income households.

The new program also failed to attain the expected production levels. It merely provided restricted access to those in the low income sector with regular employment, still excluding the families constituting the informal sector, (more than 50% of the labour force in Colombo city).

The most significant development related to low income housing in the early 70's, was the promulgation of the "Ceiling on Housing Property Law", which placed a limit on how much urban property a private could owned. This resulted in changing the pattern of ownership in the urban areas, specially in the tenement slums, which hosted the majority of the urban poor. The law was aimed at cutting land speculation, broadening the basis of ownership in the slums , and at regulating the size and cost of construction in further development.

The decade of the 70's was marked by major reforms that restricted the ownership of land and houses, and allowed the government to redistribute the surplus of houses to the original tenant families. These reforms resulted in the creation of a special and advantageous but nevertheless complex situation that evolved in the formation of a considerable government land-bank that later was to set up the basis for future government intervention in improving urban low income settlements.

By 1977, when the United National Party (UNP) assumed power the country was facing a very slow economic growth, particularly in the urban areas. The new government aimed at solving these problems by: a) relaxing regulations on private investment, b) encouraging industralization, c) expanding public works through an active participation of the private sector, d) limiting government to a subsidiary role, and e) cutting state welfare spending and subsidies.

Housing at this times , more than in previous governments, became one of the top political priorities of the government. In order to stimulate private investment in the housing sector, --with the objective of giving impetus to a home-owner society--, the government modified the earlier legislation incompatible with the new economic ideology, thus, liberating restrictions regarding property ceilings.

Intervention by UNP's government, in which the Prime Minister is also the Minister of Local Government, Housing and Construction, took the form of the "One Hundred Thousand Houses Program", which began in 1978. The program was based in the broad notion of increasing stock through direct construction, aided self-help and the provision of housing loans. The first proposal assumed that half of these units were going to be built in Colombo, a quarter in other towns and the rest in rural areas. Administrative problems, cost implications ,and difficulties in mobilizing financial resources were the reasons that brought about a shift that centered housing activities in the rural areas, on a 75% to 25% ratio, and no longer in Colombo city, now facing major housing problems.

The Department of Housing was split into two- one half to look after the day to day administration and the other to build 100,000 housing units. This is how the National Housing Development Athority (NHDA) was established in 1979. It was created as an implementation agency to carry out the development part of the One Hundred Thousand Houses Program. The role of NHDA as implementor in this program was a relatively sucessful one if consider that some 47,000 units were finished by 1985. On the other hand, high subsidies and changes in target population were necessary in order to sell them houses at affordable prices. In fact if we analyse the real impact that the program had over the housing stock, it amounted to only 12% of the addition to the total housing stock produced between 1977 and 1983. The bulk was largely achieved by the informal sector.

While the One Hundred Thousand Houses Program was under implementation, the first serious effort in upgrading urban low income settlements, was undertaken by the Urban Development Authority (1), (UDA). UDA pointed out in the Colombo Master Plan Project, the advantages of slum and shanty upgrading for the low income sector as a way of providing direct benefits to the urban poor at potentially lower costs than direct construction.

(1) UDA was established in 1978 as the agency responsible fordepeloping and managing the Colombo Master Plan.

With the above objective in mind the Slum and Shanty Division (SSD), was created in 1979. Since then, the Slum and Shanty Division has been directly responsible for various slum and shanty improvement projects (Demostration Projects) funded through direct government fund allocation (Rupees. 32 Millions) (2) and by several foreign donors (3). The upgrading activities organized by the Slum and Shanty Division involved the participation of the Community Amenities Board (CAB) as the agency which carried out the construction component of the projects, while the Slum and Shanty Division was responsable for project formulation and overall control of the implementation and management stages.

The Slum and Shanty Division's main focus, since its creation has been in research and implementation of pilot projects. These projects were intended to inform the development of an urban low income settlement upgrading policy and to create a basis for the elaboration of procedures and guidelines on how to formulate and implement such upgrading programs and projects at national scale. Therefore, pilot projects were considered as prototypes.

The Division's urban upgrading attempts, --until recently, confined to Colombo--, have been blamed by having many inconsistencies and contradictions. Some of them related to the issue that the upgrading policy at the time did not provide rights of tenure to the families in slums and shanties, today is considered a basic feature if families are going to be able to take advantage of minimun upgrading and are expected to undertake investment and house improvements on their own. On the other hand, projects have failed to limit themselves to the household affordability level. Costs have escalated to more than 2 or 3 times the original estimates, and the implementation target date has rarely been met.

Nevertheless valuable experiences and lessons have been drawn from these activities, which have proved to be relevant in guiding future intervention in urban low income settlements.

(2) 25 Rupees = 1 US dollar approx.

(3) Among them the Government of Netherlands and U.N. HABITAT

The current government awareness of the fact that urban housing requires stronger attention than is given at present time, is a clear demonstration of the improvement in attitude. Government's perception of upgrading as one of the most viable ways of creating a supportive housing context, is an outcome lesson of the previous process. This leads one to believe, that better economic development opportunities for the urban poor can be established in the near future.

2.2. THE MILLION HOUSES PROGRAM AND URBAN LOW INCOME SETTLEMENT UPGRADING: THE URBAN SUB-PROGRAM

The high level of sustained government investment in the One Hundred Thousand Houses Program and the fact that it was reaching just a small percentage of the population, which were not the neediest, made the government feel that this approach could not sustain itself anymore, either politically or financially. A change in policy seemed necessary; the NHDA was to play a key role in bringing it about.

The change in approach of the Sri Lankan government came about with the formulation of the Million Houses Program in 1984. The program was jointly formed by the Ministry of Local Government Housing and Construction (MLGHC) and NHDA, the latter emerging as the program's key implementator. NHDA's role resulted from its previous experience in the housing sector, and its active involvement in the articulation of government intentions in turning a support oriented housing program, into a structured policy and a program.

The Million Houses Program was based on the concept of the state acting as "support" for the mainstream of the people, helping them provide houses for themselves, rather than as "building" finished units for them. The program was to be an "enabling" one rather than a "prescriptive" one.

In attempting to increase the program's coverage by providing small loans to more beneficiaries, emphasis was given to (4): a) the recipients' autonomy in making their own vital shelter decisions; b) the need to cater to a greater variety of different housing needs and priorities, thus relaxing standards; and c) the relevance of decentralizing decision-making at all operational levels. In this way, planning and implementation were to be structured from the bottom up. The new slogan was "MINIMAL SUPPORT BY THE STATE: MAXIMAL INVOLVEMENT OF THE BUILDER FAMILIES". In other words the state was going to finance the demand for housing in a decentralized manner, and supply government land and infrastructure through other programs and agencies when it was feasible and appropriate.

The central government was to determine policy and programs, as well as provide funds to the different country's Districts, where the local government body would have the responsibility to deliver the program through out Sri Lanka. The key instrument of the Million Houses Program was perceived to be the "Housing Options and Loans Package" (HOLP), a minimun amount of cash to finance and encourage the production or upgrading of the housing stock, through the resurrection of vernacular construction methods.

During its first year of implementation (1984) the program focused on the rural areas, through the Rural Housing Sub-program (RHSP), --where NHDA had had further experience--, because it provided a less complex context in which to test the new approach. Intervention under the Million Houses Program in the urban areas, through the Urban Housing Sub-program (UHSP), was limited to some sites and services projects (Nava Gamgoda Projects) and few shanty upgrading schemes funded by UNICEF. The objective was to build up substantial operational skills within the institutional delivery structure, before attempting a major intervention in the urban areas.

(4) from Million Houses Programe Implementation Guidelines 1984, National Housing Development Authority & Department of local Government, January, 1984, Sri Lanka.

The performance of the Rural Housing Sub-Program was remarkable. In 1984 more than 43,000 families were reached, over 100% of the year's target, all of them families with monthly incomes below Rps. 1,000. The Housing Options and Loan Package approach appeared to be a sensible one. Families were able to choose from the loan options depending on their needs and ability to pay, producing substantial improvements in their housing situation with very small loans. In fact, the average upgrading package amount was Rps. 7,500.

Nevertheless the program was not free of problems. Just over 37% of the families were able to complete their work by the end of the year, 27% had completed over 50%, and the rest had completed less than 50%. Among many possible reasons for the results were: a) lack of district managerial and planning skills to deliver the loans, producing a serious backlog late in the year; b) some rigidity in the loan ceilings of each loan option, that created constraints in the level of flexibility to allocate the district's financial resources; and c) the level performance of the grass-root organizations , the Gramodoya Mandalas (GM) (5), where less than 25% showed to be efficient in their role of selecting benefitiaries, supervice the use of loans, assist in cost recovery and help the community in the design and construction process, and manage the repayment of loans. Another aspect causing concern wass the rate of cost recovery, which was considered to be low. Extra-official figures give a low 46% of people who were able to keep up with their loan repayments; figure which could make the whole program fail if further attention is not given to cost recovery.

Despite the many benefits that the Million Houses Program is providing to Sri Lankans, rural areas appear to have minor housing problems compared to the critical condition that urban low income housing presents in the country. By 1982, Colombo's slums and shanties compromised about 400,000 people or 67,000 families, more than the 50% of Colombo population (616,000), as it was also observed in 1977 in a UDA report (6).

(5) Gramododoya Mandalas: community based organizations

(6) Colombo Master Plan Project Synthesis Report, Volume 4, UDA, 1977

These people either lived in decaying and unserviced slums or squatted illegally in semi-permanent shanties, most of them on low-lying, marginal land. Nevertheless, not only Colombo had been affected by the growing problem, but also those rural centers with populations between 10,000 - 20,000 and 20,000 - 50,000 inhabitants, which have experienced the highest growth during the period mentioned (1977-82).

Even though the urban population in Sri Lanka is said to be a low 25% and the urbanization rate (1978), has been lower (ie. Colombo 1.5%) than the growth for Sri Lanka as a whole (2.0%), the low income housing situation in urban centers is much worse than its rural counterpart.(7) Moreover this sector has been negleted for much longer by Sri Lankan official housing policies.

The overcrowding of so many of the urban population into marginal sites has resulted from both the lack of affordable alternative accomodation and the lack of financial and economic resources of the urban poor. The Sri Lankan low income settlement situation is thus characterized by the coexistence of physical decay, high rates of unemployment and/or under-employment, low level of education, and a greater incidence of malnutrition and desease compared to other urban communities.

The urban low income settlement situation in Sri Lanka is serious but, as many experts agree, still possible to manage. The government is starting to consider it as one of the priority situations that need to be addressed. The Urban Housing Sub-Program of the Million Houses Program, is attempting to deal with these issues based on the concepts earlier stated in the thesis: a) minimal intervention, maximal support by the state: maximal involvement of builder families; b) minimun assistance for many rather than ample aid for few; c) minimun standards for many people rather than high standards for few; d) decision-making, planning and implementation to be done in a decentralized manner by urban local authorities and community; e) community action for local community development.

(7) synthesis of view expressed in Policy Paper: Slum & Shanty Upgrading in Colombo Municipal Council MLGHC, Urban Development Authority, September 18, 1979

During the first term of 1985, the first year of implementation, ..."the program was largely confined to loans for individual families under the Housing Options and Loan Package. This was good for a start, for rapid implementation and achieving targets, with little preparatory work. However, this left out squatter settlements. i.e. settlements with little land, no access roads and no access to urban services".(8)

A review of the Urban Housing Sub-Program on August 1985 refers to upgrading of settlements and Nava Gamgoda projects (sites & services) as follows:

- Squatters form a major portion of the Urban Low Income community.

- To meet their needs, Local Authorities will have to embark on integrated upgrading projects and Nava Gamgoda projects.

- Upgrading projects should be carried out by the provision of security of tenure, water, sanitation, drainage and loans for housing improvement.

- For families living in settlements that cannot be upgraded, alternative serviced plots should be provided through the implementation of Nava Gamgoda projects.

The above remarks and objectives together with the substantially higher funds allocated to the Urban Housing Sub-Program for 1986, show that the Million Houses Program emphasis will be placed on the improvement of urban low income settlements. Thus, it seems that this program will provide the opportunity to implement upgrading projects and Navagamgoda (sites & services) projects, which include substantial infrastructure and land developments at a national scale for the first time.

(8) from "Notes on Preparing for 1986", First Urban Housing Sub-Program Review, NHDA, Sri Lanka, August 1985

2.3. INSTITUTIONAL DELIVERY STRUCTURE & ROLE OF THE LOCAL GOVERNMENT

URBAN HOUSING DIVISION GOALS & RESPONSIBILITIES WITHIN THE URBAN HOUSING SUB-PROGRAM INSTITUTIONAL FRAMEWORK

The Urban Housing Division (UHD) of NHDA was structured early in 1984 with the objective of managing and implementing the Urban Housing Sub-Program of the Million Houses Program (83-89), islandwide. The objective was that Urban Housing Division should manage and coordinate all the existing urban housing operations in Sri Lanka through one agency, in this case NHDA. The Urban Housing Sub-Program was programmed to be initiated by 1984, on a low-key level, mainly confined to implementing the urban Housing Options and Loan Package and a few Nava Gamgoda demonstration projects. The program was to be escalated in 1986 by implementing integrated upgrading projects and Navagamgoda projects with infrastructure and land development.

The Urban Housing Sub-Program represented a challenge to NHDA and Local Authorities because it was based on an approach were few experiences and experiments at such a scale of operation existed. Thus, there was much to be done. While implementing the Housing Options and Loan Package in 1984-85 the new Urban Housing Division staff was to develop implementation guidelines and organize the institutional delivery structure for the Urban Housing Sub-Program in 1986. Institutional actors and responsabilities were to be defined, and legal, financial and training tools developed in order to implement the program. The NHDA General Manager, together the recently incorporated Urban Housing Division Manager, played key roles in developing these tasks, drawing on the assistance of the Development Planning Unit (DPU) of London College University and the Design and Housing Group of the Massachusetts Institude of Technology (MIT), teams who acted as advisors. This resulted in a series of implementation guidelines and operational procedures, the publication of training material and workshops of a more technical nature directed to improve the operational

level of NHDA staff. The former related to guidelines for sites & services and upgrading projects design, and the latter were aimed at training NHDA and Local Government managerial and technical staff, in developing micro-plans for the urban low income settlement areas.

While the 85' Urban Housing Sub-Program was under implementation the Minister of Local Government Housing and Construction decided that the Slum and Shanty Division activities should come under the Urban Housing Sub-Program so to coordinate all low income settlement improvements under one agency. Consequently, Urban Development Authority's Slum and Shanty Division was merged with NHDA's Urban Housing Division on March, 1985. The merge brought to NHDA, more than 65 projects at different stages of completion, and over 30 highly trained Slum and Shanty Division staff members, with more than seven years of experience in research and intervention on urban low income settlements.

Even though both divisions were dealing with the same issues, they had relatively different approaches and experience with urban low income settlements intervention. As has been mentioned the Slum and Shanty Division has focused since its creation, on research and implementation of pilot projects, intended to inform policy and the development of procedural guidelines. Thus, it was not concerned with quantity and timing, or with the level of impact of their operations, but with learning from what it was doing as a form of research, aiming at the formulation of a national upgrading policy. On the other hand, the Urban Housing Division is now in the position of implementing an urban housing program nation-wide, and therefore it is more concerned about impacts at national level and quantitative aspects of the program. The Urban Housing Division stresses the need for emphasizing an "action" planning approach entailing immediate intervention with maximum high impact on the urban low income settlement areas, and assures learning is to take place while actually doing rather than through research.

The above discussion lead one to think that Slum and Shanty Division staff would have had to go through some changes in both the way they perceive their role and consequently, the way they operated. On the other hand, the Urban Housing Division has a lot to learn from Slum and Shanty Division staff past experience. A process of mutual adjustment

and learning has already been taking place at the Division, and it is in this context that the thesis will look at the existing use and management of information and its relationship with the decision-making process.

THE INSTITUTIONAL SET-UP: ROLES AND RELATIONSHIPS

The Million Houses Program views Urban Local Authorities as the "vital institutions of this new implementation process"(9). There are three basic relationships in this new institutional structure that need to be analized.

1.Center/Local Authority Relationships (Fig. 2.1)

The Ministry of Local Government Housing and Construction (MLGHC) as the umbrella institution at the central government level, is situated at the top of the Urban Housing Sub-Program institutional delivery structure. Its major activities are to design the national policy and monitor overall performance of the program.

NHDA as its implementation agency, at the central government level, is responsible for spreading the Million Houses Program nation-wide. Among the agency's major activities related to the Urban Housing Sub-Program are: a) managing the program funds through its district offices; b) providing Urban Local Authorities and NHDA district offices with technical and training support to implement the program; c) monitoring Urban Housing Sub-Program performance in the districts; and d) managing and disseminating information related to the program.

NHDA relation with the Urban Local Authority is through a new institution that has been introduced to the institutional set-up, the Housing and Community Development Council (HCDC), created with the purpose of decentralizing decision-making in the implementation of the Urban Housing Sub-Program. (see Fig. 2.1)

(9) from "The Institutional Structure", 1985 UHSP Implementation Guidelines # 3, NHDA, Sri Lanka, Nov. 1984.

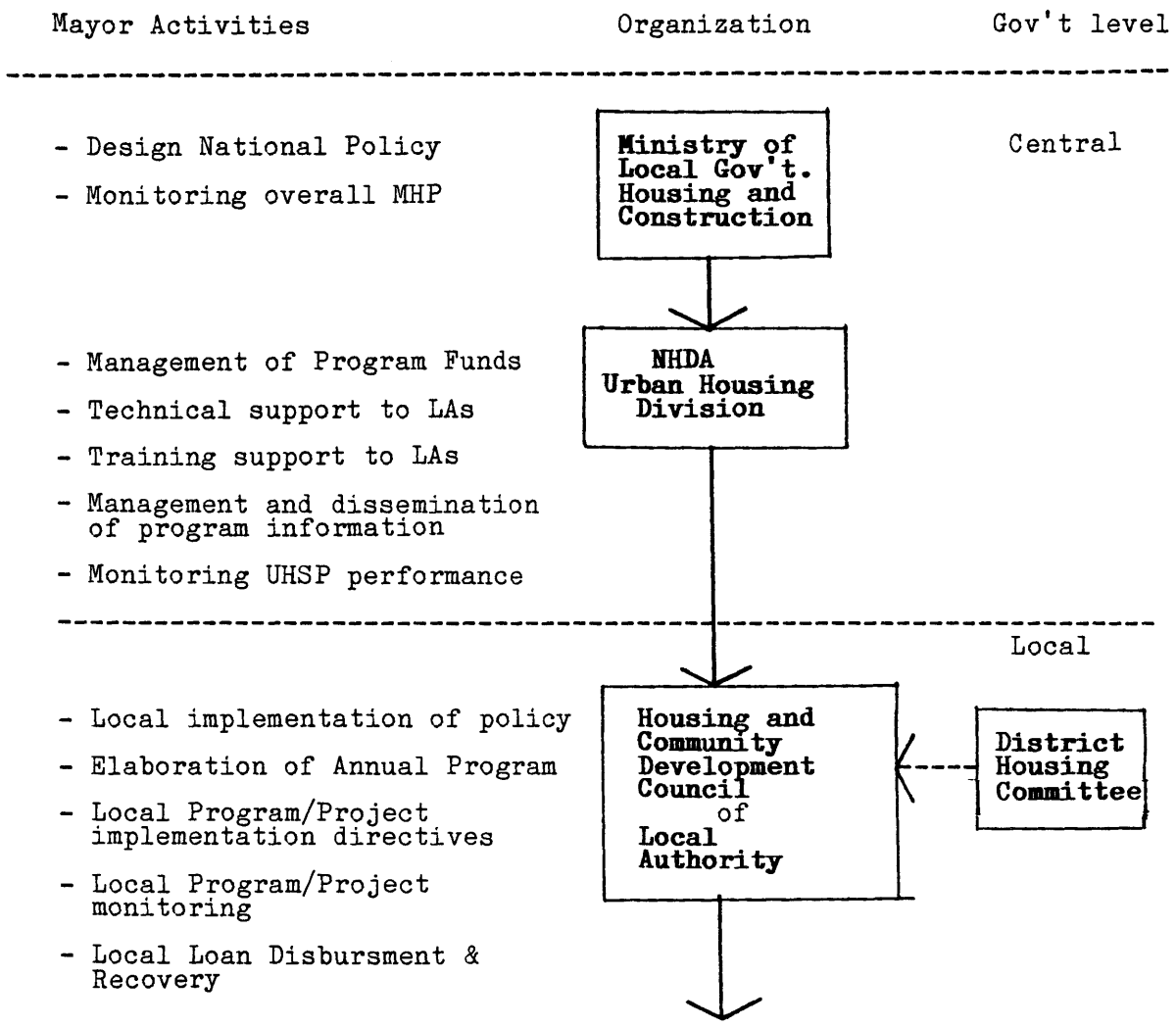


Fig. 2.1: CENTRE/LOCAL AUTHORITY RELATIONSHIP

source: modified version of NHDA/UHD, Urban Housing Sub-Program, The Institucional Structure, 1985 UHSP Implementation Guidelines # 3, Nov., 1984.

NHDA district offices are supposed to work in direct relation to the Housing and Community Development Council of the Local Authority, playing a key role in supporting its activities through the elaboration of projects and the assignment of technical staff. NHDA district offices seek to support Housing and Community Development Councils in a wide variety of activities, wich include: a) elaborating the Housing and Community Development Council annual program; b) assessing the low income settlement situation within the urban Local Authority, gathering the neccesary data and processing it to be useful information; c) implementing local programs & projects, providing project and technical officers that deal with day-to-day operations; and, d) program/project monitoring and loans disbursment and recovery. NHDA district offices are expected to play a decisive role in getting the newly formed Housing and Community Development Councils to an operational level.

Housing and Community Development Councils are planned to be the critical organizations in the whole process of decentralizing decision-making. They are expected to be in charge of planning at the local level based on local needs and priorities, playing a fundamental role in reaching the low income settlement communities.

Housing and Community Development Council members are the chairmen and representatives of the key agencies, groups and institutions who are in one way or another related to local development and improvement of urban low income settlement. Some of them are: Mayor/Chairman of Urban Local Authority (Chairman of HCDC); Commissioner/Secretary (Secretary of HCDC); Council Members' Representatives; Gramodaya Mandalaya Chairman; Non Government Organization's Representatives; District Manager of NHDA; and others. Members of Parliament for the area, Chairman of the District Development Council and Government Agent/ District Secretary are to be advisory members of the Housing and Community Development Council.

Housing and Community Development Councils are responsible for: a) local implementation of policy; b) prepare annual program based on local needs and priorities; c) making program/project implementation directives; d) program/project monitoring; and e) coordinating loan disbursment and recovery.

All work being done within the Local Authority area seeks to be integrated into one Local Authority Urban Program. From whatever source or agency those works originated, they are forseen to be harmonized and integrated into one program, to be coordinated by the Local Authority's Housing and Community Development Council.

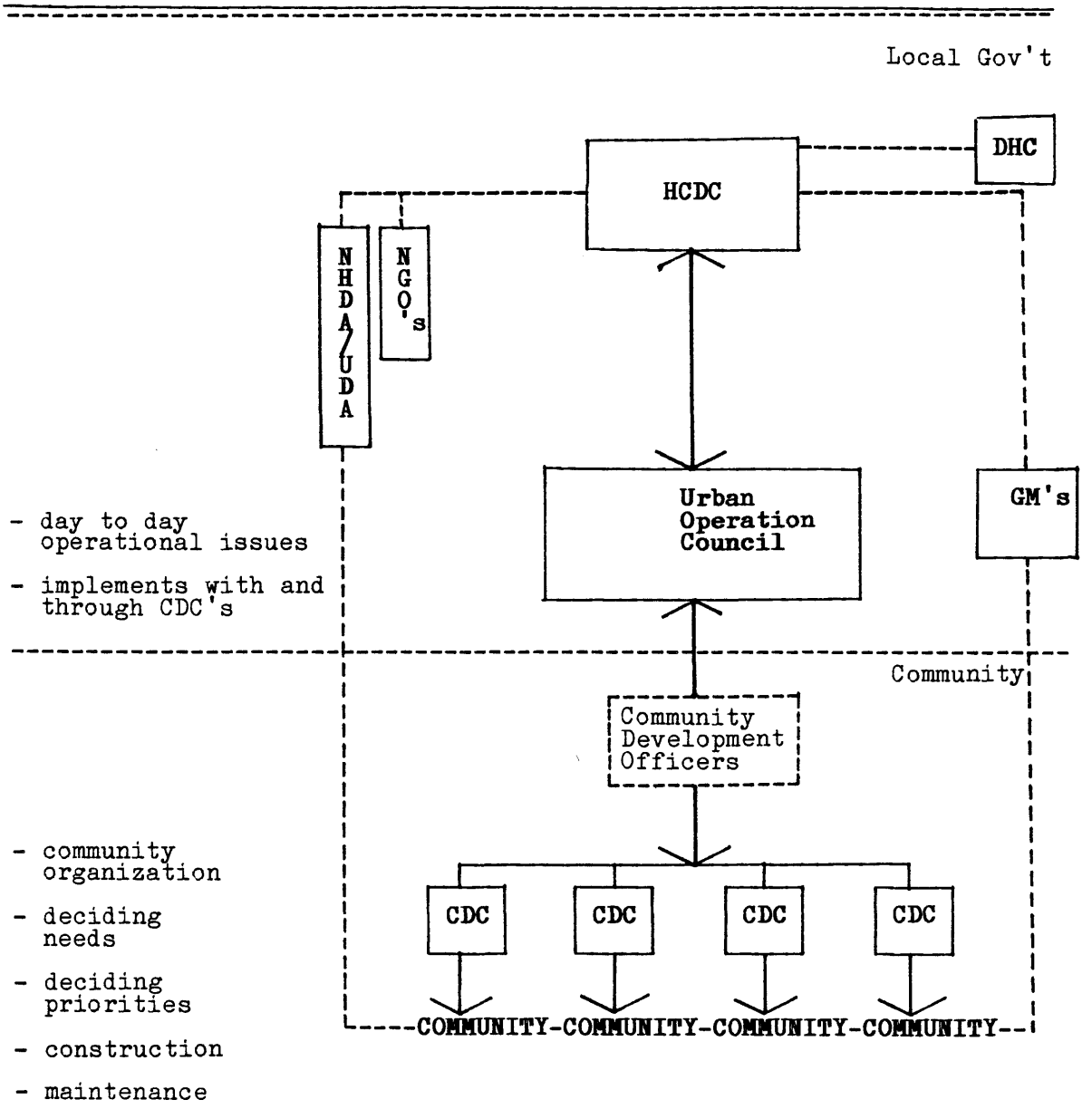
2. Local Authority/Community Relationship (Fig. 2.2)

The Housing and Community Development Council of the Urban Local Authority is expected to structure its relations with the community through the operations of yet other two institutions created at the local government level. These are the Urban Operation Council (UOC) and the Community Development Councils (CDCs).

The Urban Operation Council is supposed to be concerned with day to day operational issues. It is structured to service the Housing and Community Development Councils, and implement projects with and through them. Its staff members are to be the core group of technical officers of the Local Authority, who are expected to implement the local urban program.

The Community Development Council is the new unit of community organization and development. Every low income housing project is supposed to have one or more Community Development Councils, depending on the settlement population size and characteristics.

Community Development Councils are expected to be the vital units which organize communities for their self-development. Their function is to decide and transmit the needs and priorities of the community to the Community Development Officers, as well as to organize the construction process and maintenance of the improvement works. Community Development Council members are to be elected by the community and expected to be truly representative of their constituency.



NHDA : National Housing Development Authority
UDA : Urban Development Authority
NGO : Non-Government Organization
HCDC : Housing and Community Develoment Council
DHC : District Housing Committee
GMs : Gramodaya Mandalas (community based organizations)
CDC : Community Development Council

Fig. 2.2: LOCAL AUTHORITY/COMMUNITY RELATIONSHIP

source: modified version of NHDA/UHD, Urban Housing Sub-Program, The Institucional Structure, 1985 UHSP Implementation Guidelines # 3, Nov., 1984.

Finally, other organizations at the Local Authority level are:

Non-Government Organizations: They relate to both the Housing and Community Development Council (HCDC) and the Community Development Councils (CDCs). They are represented in the Housing and Community Development Council and usually work directly with one or several Community Development Councils in supporting their activities. Non-Government Organizations most of the time manage their own resources , but allocate them on a programmed way in agreement with Urban Operation Council and Housing and Community Development Councils.

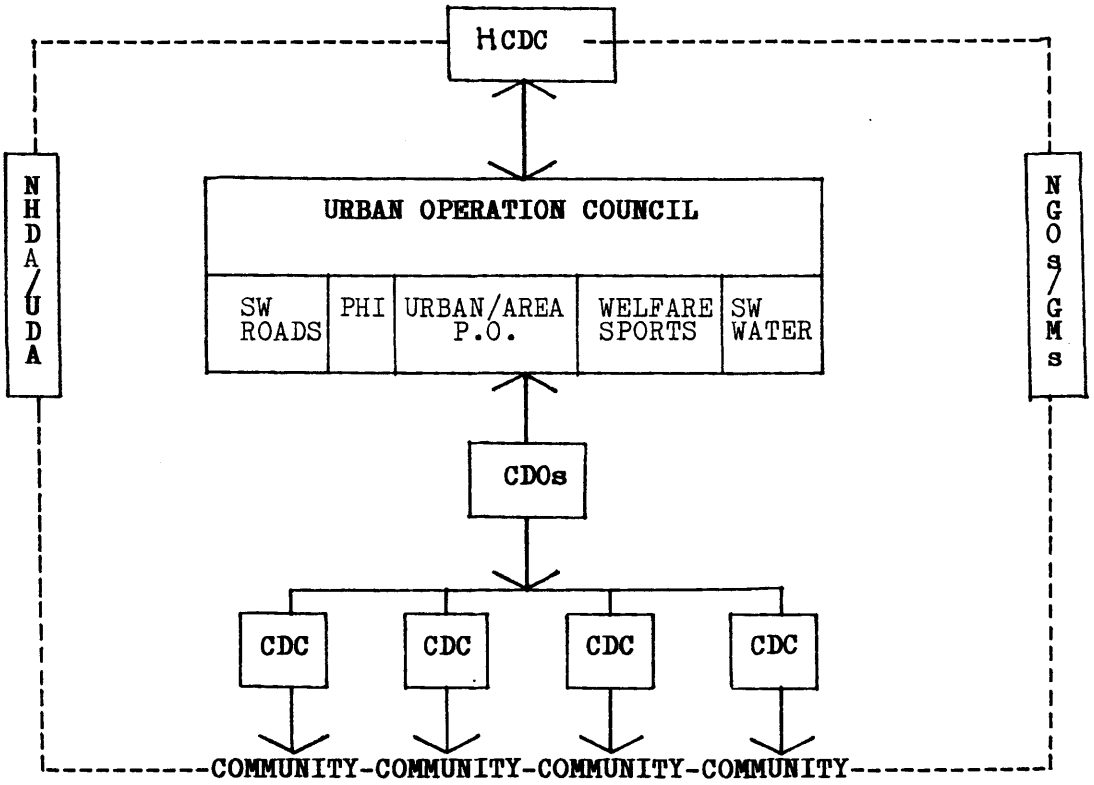
NHDA/UDA: Both are resource agencies. They provide professional, support services to the Housing and Community Development Councils when they are requested by the Local Authority. These services are of vital importance at the early formation and operation phases of the Housing and Community Development Council, where one might well see substantial involvement of NHDA district office staff.

Gramodaya Mandalas: These are community based organizations with a long history in rural Sri Lanka. They are playing a key role in the implementation of the Rural Housing Sub-Program, selecting loans beneficiaries, supervising the use of loans, assisting in cost recovery, assisting the community in the design and construction of houses, and supervising the repayment of loans. They too relate to both the Housing and Community Development Council and the Community Development Councils. Having a certain number of representatives in the former organization and working very closely with the latter, depending on the particular circumstances.

3. Local Authority Internal Relationships: Municipal Council/Urban Council Organization (Fig. 2.3)

Urban Local Authorities in Sri Lanka (59 of them) are categorized into Municipal Councils (MCs, 12 nos.) and Urban Councils (UC, 39 nos.). The former being more numerous and extensive than the latter.

The Urban Housing Sub-Program, being a new activity of the Local Authorities, created changes in the Municipal and Urban Councils internal organization. Municipal and Urban Councils existing divisions have to be mobilised and reoriented to play a new role as implementors of their low income housing program. All staff functioning at this operational level are members of the Urban Operation Council, chaired by the Commissioner, with the Urban or Area Projects Officer as Secretary.



NHDA : National Housing Development Authority
UDA : Urban Development Authority
NGO : Non-Government Organization
HCDC : Housing and Community Develoment Council
GMs : Gramodaya Mandalas (community based organizations)
UOC : Urban Operation Council
SW : Superintendent of Works
PHI : Public Health Inspector
PO : Project Officer
CDOs : Community Development Officers
CDC : Community Development Council

Fig. 2.3: LOCAL AUTHORITY INTERNAL RELATIONSHIPS: MC/UC ORGANIZATION

source: modified version of NHDA/UHD, Urban Housing Sub-Program, The Institucional Structure, 1985 UHSP Implementation Guidelines # 3, Nov., 1984.

All Municipal/Urban Council Divisions: Roads, Public Health, Urban, Welfare & Sports, and Water Division, are to deal directly with improvement of low income settlements in their own fields. A core of Community Developmnet Officers (CDOs) are appointed by each Local Authority. They are supposed to act as vital links between the communities and the Local Authorities. As the name implies, they are primarily community based staff, in charge of organizing Community Development Councils in the low income settlement areas, as well as supporting communities in organizing and developing their activities.

The institutional delivery structure and the basic relationships of its components presented here, is a theoretical and clinical one. The model experiences variations in the real environment, and components' roles and activities will most likely overlap and go well beyond their theoretical boundaries, Thus, resulting in a more dynamic structure.

Most Housing and Community Development Councils have been structured into the 59 Urban Local Authorities during 1984-85, and hopefully are at an operating level. Their main focus of activity during the first year of the Urban Housing Sub-Program implementation has been the disbursment of loans to individual families, without treating low income settlement areas as units of intervention. However, the coming emphasis on improvement of urban low income settlement areas (upgrading) of the Urban Housing Sub-Program in 1986, will create new demands and pressures on the Local Authority organizations. Therefore, there will be a demand for more skills and delivery capacity from their staff, which will need to be addressed through some training program.

This new institutional delivery structure seems to open more opportunities for participation of local actors, but the extent of participation will very much depend on what relations are locally established between the actors. In other words, because procedures are very general and not clear, they will have to evolve locally, and this will bring about very diverse decision-making structures.

2.4 PROGRAM DECISION-MAKING AND INFORMATION: THE CASE OF COLOMBO HOUSING & COMMUNITY DEVELOPMENT COUNCIL

This part will examine the program decision-making process that takes place at the **Colombo Housing and Community Development Council** (HCDC). It will focus on the decision-making process in relation to how the program is formulated and implemented, with special emphasis on the role of the **Urban Housing Division** (UHD) of the NHDA in this process. In doing so, it will attempt to understand: a) how diverse actors influence the process, b) what criteria are established and which ones dominate the process, c) how potential program components are identified, who identifies the need for considering an area as a potential component of the program. Furthermore, this part will attempt to clarify the relationships between: a) the information that was used in the process and the way it was acquired, and, b) the established decision-making structure and the levels of participation attained.

CONTEXT AND FOCUS

Colombo Housing & Community Development Council was formally established in 1985 with the objective of decentralizing decision-making and concentrating the planning activities of the Urban Housing Sub-Program (UHSP) of the Million Houses Program in one body at the local government level. Its role is to elaborate an Annual Urban Housing Program for the city of Colombo, as well as to provide directives on local program & project implementation, monitor progress of program & projects , and to coordinate and integrate all other programs in the Urban Council, which relate to settlement improvement.

Colombo Housing & Community Development Council members are the chairmen and representatives of the key agencies, organizations and institutions which are in one way or another related to local development and improvement of urban low income settlements.

Some of them are: the Colombo Mayor, acting as Chairman of the Housing & Community Development Council; the Colombo Commissioner, acting as Secretary of Housing & Community Development Council; Council Members' Representatives; Urban Housing Division Manager and Unit Managers; Colombo Municipal Council's Representatives of Departments of Physical Plan, Works, Health, Electricity, Water supply and Sewerage; Non-Government Organizations like UNICEF, Save The Children, etc; and finally representatives of government agencies like the Urban Development Authority and the Community Ammenities Board.

Colombo Housing & Community Development Council's first activities were related to monitoring Slum & Shanty Division projects, Colombo-wide. During its earlier monthly meetings, the Council started to examine Slum & Shanty Division projects in order to familiarize itself with the many aspects involved in the new task. While doing so, it continually addressed numerous requests for intervention coming from politicians and organized communities, as they arose. Ultimately, actual learning by doing took place within the Housing & Community Development Council, and various procedures and criteria evolved out of the whole process, which then guided the way program was to be elaborated and managed.

The procedures and criterias that evolved out of this process will examined in an attempt to understand the actual way in which Colombo Housing & Community Development Council decides where and how to intervene so as to improve urban low income settlements.

PROGRAM/PROJECT FORMULATION AND IMPLEMENTATION PROCEDURES

An examination of the early procedures which were outlined while establishing the Housing & Community Development Councils, seems important at this point, in order to compare them with the actual process that takes place at Colombo Housing & Community Development Council.

The basic steps outlined in the Local Program/Project Formulation Diagram (see Fig. 2.4), represent the ideal model which was supposed to be followed while formulating and implementing the local urban housing program.

Step	Organization	Major Activities
1	HOUSING & COMMUNITY DEVELOPMENT COUNCIL	- Prepares annual program. - Identifies projects. - Makes directives regarding implementation policy. - Appoints sub-committee to select beneficiaries.
2	URBAN OPERATION COMMITTEE	- On the recommendation of the HCDC prepares draft project proposals on prescribed forms. - Enumerates beneficiaries and gather their socio-economic data.
3	NHDA DISTRICT MANAGER	- Inspects project sites with LA staff. - Forwards project proposal to NHDA with comments.
4	NHDA DISTRICT OFFICE PROJECT TEAM	- "On Site" Project Design team visits site. (Team: Manager(Urban) Project Planner/Architect, Project Engineer, Surveyors/Technical Officer, Community Development Officer, Project Officer, Superintendent of Works, and LA Technical Staff). - Designs on site in consultation with the Community Development Council. - Presents design options to Housing & Community Development Council to select one option.
5	PROJECT TEAM	- Prepares final design and costs. - Apply for Urban Development Authority planning permission.

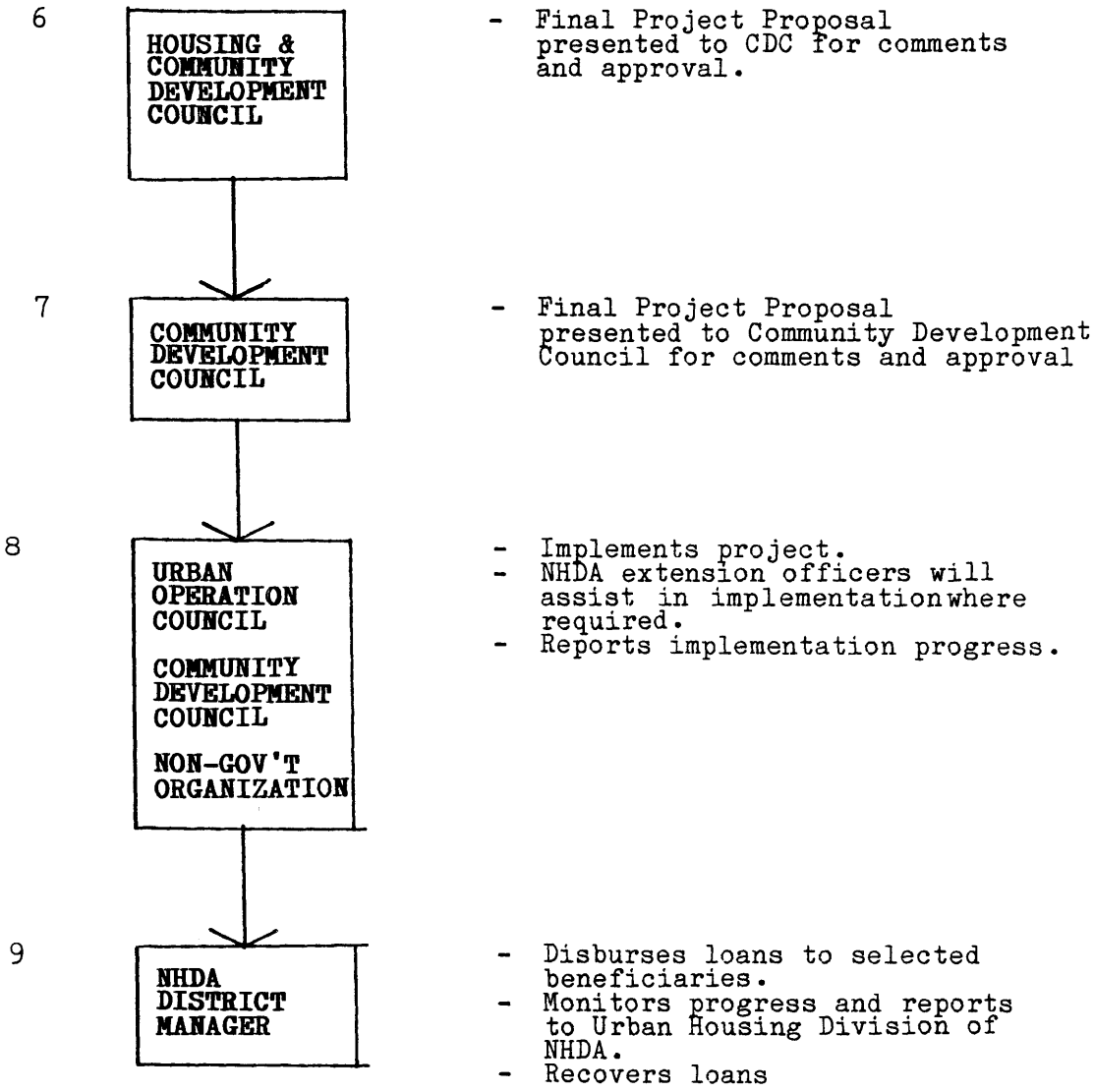


Fig. 2.4: LOCAL PROGRAMM/PROJECT FORMULATION & IMPLEMENTATION STEPS

source: modified version of NHDA/UHD, UHSP, Project Formulation & Implementation Steps, 1985 UHSP Implementation Guidelines # 5, Nov., 1984.

Like all models this one tends to oversimplify and logically structure a process into consecutive steps, which, in the real environment, do not occur in so clear a manner. Almost always, activities overlap, outcomes of activities modify former decisions, sequences are by-passed, and processes go through iterative loops. All of the above are phenomena which characterize the nature of any decision-making process which involves deciding where and how to intervene so as to improve low income setllements.

Nevertheless, the model is useful as a guide for clarifying overall steps, actors and responsibilities, as well as providing a basic checklist for programming purposes.

Again, while risking the danger of oversimplifying, it is important to outline the real steps of the decision-making process that takes place in Colombo Housing & Community Development Council, in order to make a comparison. (see Fig. 2.5)

Unlike what the ideal model suggest, (see Fig. 2.4), the process is not initiated by Colombo Housing & Community Development Council itself --who is supposed to prepare the annual program, to identify projects and make directives regarding implementation policy--, but by organized low income settlement communities who mobilize themselves to request government intervention in their areas. Until the present time, Colombo Housing & Community Development Council, until the present time, has mainly reacted to community requests made either directly to it or through local politicians. This is the real origin of the program formulation process.

On the other hand, these requests are not resolved in the first instance by the Housing & Community Development Council. Instead, they are put forward to a Special Committee, principally formed by personnel from the Urban Housing Division of the NHDA (ex personnel of the Slum & Shanty Division), and some Colombo Municipal Council officers, who further study the requests and recommend a course of action to the Housing & Community Development Council. In the Colombo Housing & Community Development Council case, there was no Urban Operation Council formed, and basically the Urban Housing Division of the NHDA took that role.

Step	Actors	Major Activities
1	COMMUNITY	— Makes request for intervention to the Housing & Community Development Council, or to local politician.
	LOCAL POLITICIAN	- Supports community request and presents it to the Housing & Community Development Council.
2	HOUSING & COMMUNITY DEVELOPMENT COUNCIL	- Analyse requests and forward them to Special Committee (basically formed by Urban Housing Division personel) for further study.
3	SPECIAL COMMITTEE (UHD)	- Studies requests and screen them into minor and major interventions. - Minor interventions are forwarded to Community Ammenities Board, Municipal Departments, or Reclamation Board (land flooding). - Major interventions are further studied by Special Committee (UHD).
4	SPECIAL COMMITTEE (UHD)	- Studies feasibility of major intervention - Visits sites and gathers first-hand information from community. - Selects project areas and recommends courses of action to HCDC.
5	HOUSING & COMMUNITY DEVELOPMENT COUNCIL	- Discuss Special Committee recommendations and forwards resolution to Urban Housing Division of the NHDA for project formulation and implementation
6	URBAN HOUSING DIVISION PROJECT TEAM	- Assigns Project Team (Project Officer, Technical Officer and Community Development Officer). - Project Team moves to site and formulates project in consultation with Community Development Council - Presents project options to HCDC for discussion and selection
7	(same as step 5 and continuation of Fig. 2.4: Local Program/ Project Formulation and Implementation)	

Fig. 2.5: COLOMBO HCDC LOCAL PROGRAM/PROJECT FORMULATION & IMPLEMENTATION STEPS -- ACTUAL PROCESS.

After Housing & Community Development Council decides on the Special Committee's recommendations, the process follows, in broad terms, a similar path to the one outlined in the ideal model, --understanding that project formulation and implementation approaches vary much in each particular case.

The way Colombo Housing & Community Development Council is actually operating, is a sort of particular symbiosis of political power and professional judgement. Colombo Housing & Community Development Council top members are, for the most part, politicians who have the power to implement decisions and co-ordinate activities of other agencies, but who understand very little about housing and infrastructure upgrading. On the other hand, the Urban Housing Division of NHDA, acting through the Special Committee, is the one providing professional expertise. They are well prepared to judge the feasibility of an intervention and develop projects, but they need political support to materialize their ideas.

The symbiosis seems to work. Politicians have clear priorities about where they would like to intervene --as a way of answering the needs of their constituency--, and these priorities are the ones which generate the draft list of possible components of the program. Professionals then screen these components in terms of feasibility and priority of intervention, --according to a developed criteria-- and present their recommendations to the top members of the Housing & Community Development Council.

When an Urban Housing Division manager was asked how willing polititians were to listen to professional judgement. He said that politicians were very interested in the success of "their" projects, and therefore, very careful and willing to listen to and accept professional judgement and recommendations.

However, it cannot be denied that political criteria play a major role in the program decision-making process. Members of Parliament, representing Colombo's 5 electorates and Government Ministers have a direct political interest in serving the needs of their constituency. They themselves, or members of their political coterie are constantly approached by groups of well-organized settlers who ask for government resources to be poured into their area.

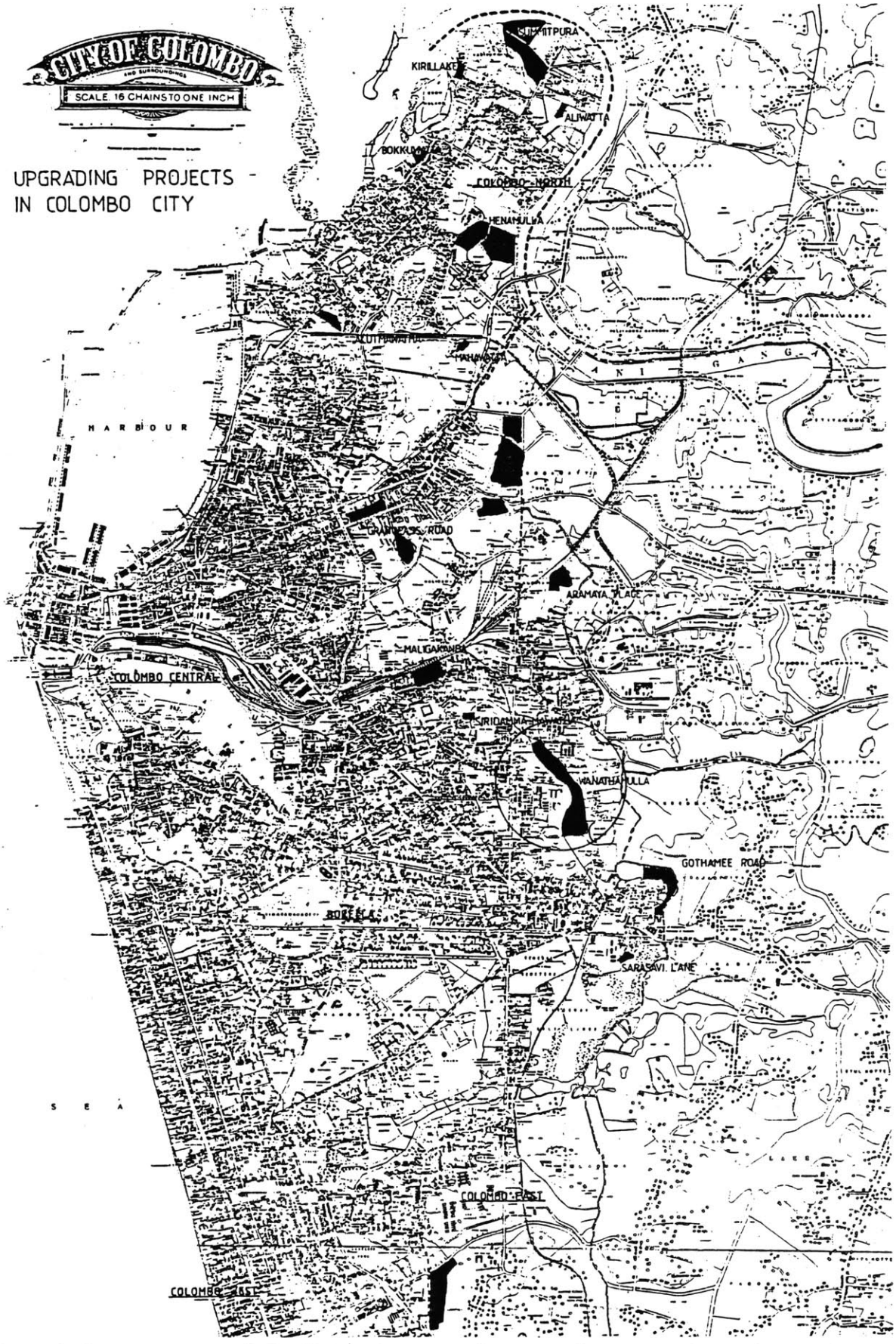


Fig. 2.6 : Colombo HCDC Urban Housing Program, Projects in Colombo Area.

Members of Parliament and Ministers become highly motivated to allocate resources to the areas they represent, in order to improve their political base. The government machinery supports this motivation through a tacit agreement which allows politicians to have access to resources. An Urban Housing Division manager commented that during the selection of project areas, one of the criteria they used was to evenly distribute government funds among the electorates.

It can be argued that this highly politicized process is a good example of a bottom-up one, where the community raises the need for intervention and transmits it to the top political decision-makers. But, on the other hand, it can also be argued that this process could be transformed into a segregated and inequitable one, where only the well-organized and connected settlers will benefit, or where the political interest of the authorities is the one which will prevail.

When asking an Urban Housing Division Project Officer what the most frequent motivation which generated intervention in the areas was, it came out that for the majority of the cases the particular interest of political authorities was the one motivating and determining on intervention.

A question to raise is: are the existing channels to reach politicians open enough so that the concerns that they transmit are representative of the real and complete low income settlement situation, or are they just highly biased partialities of the real situation?

Whichever the answer for the above question is, there is no doubt that any attempt to modify the existing system will deeply touch a long political tradition in Sri Lanka.

Meanwhile, 10 new projects have been identified through this system for the 86-87 Colombo Housing Program. Five of them are sites and services (Nava Gamgodas), and five shanty upgrading projects. These ten new projects added to the 15 inherited from the Slum & Shanty Division, make 25 projects which Colombo HCDC will have to manage during the comming year. (see Fig. 2.6).

FUND SOURCES AND DECISION-MAKING POWER

To understand how program decisions are made, one needs to clarify from where funds are coming and who has control over them.

Funds for Colombo Urban Housing Program come from three basic sources: the Million Houses Program (Rps. 14 M); Central Government Special Funds for Urban Settlement Upgrading (Rps. 18 M); and UNICEF (Rps. 30 M). (see Fig. 2.7)

SOURCES	AMOUNT	PRESCRIVED USE	DECISIOM-MAKING POWER OVER FUNDS	ACTUAL USE
Million Houses Program	Rps. 14 M.	Housing Options and Loans Package (HOLP) individual loans up to Rps. 7,500	HCDC: - NHDA General Manager - UHD/NHDA Deputy General Manager - Colombo Mayor	- project housing loans (major) - infrastructure development (minor)
Special Funds for Urban Settlemnt Upgrading	Rps. 18 M.	continuation of SSD projects, and new upgrading or sites & servs. projects for all Sri Lanka	NHDA/Urban Housing Division Deputy General Manager	- infrastructure upgrading - land regularization (basically used within Colombo)
UNICEF	Rps. 30 M.	health nutrition common amenities water provision	NHDA General Manager UNICEF General Manager Colombo Mayor	health, nutrition common amenities, and water services (integrated into project areas)

Fig. 2.7: COLOMBO URBAN HOUSING PROGRAM: FUNDS SOURCES, USES, & DECISION-MAKING POWER.

Each of these sources have clear prescriptions on what funds should be used for (tied funds), but actually, HCDC allocates them with more freedom. The concept been followed is to identify a project and to try to integrate these different funds, e.g., the Rps. 14 M. from the Million Houses Program. These are supposed to be open to any individual in the urban area requesting an option loan, and are allocated by giving priority to individuals settled in selected project areas. A similar

criterion is used to allocate UNICEF funds. Again priority is given to selected project areas, as a way to integrate different sources of funding.

Another interesting aspect is to understand who is really managing and controlling these funds. The Housing & Community Development Council is suppose to program and coordinate the allocation of funds, but actually NHDA, as one of its members, is the one managing the majority of the funds, and therefore, the one which is in a stronger position to make its point of view to prevail. NHDA's control over funds can explain to a certain extent the existence of space for professional judgement, -- through the participation of NHDA's Urban Housing Division in the HCDC Special Committee--, within such a politicized process.

Nevertheless, NHDA as implementing agency, and HCDC as coordinating body are subject to strong political pressures. Agencies and Government Bodies in Sri Lanka are almost always headed by a top level administrator and a top level manager. The latter is more of a politician than a manager, who, as part of the political network responds to its hierarchical structure.

A story might illustrate better this point.

The Prime Minister's Visit to Maligakanda:

One of my research counterparts at the National Housing Development Authority (NHDA) --with whom I had long discussions about the lack of an atmosphere for professional and rational judgement while planning for the urban housing program-- invited me and another MIT researchers to a monthly site visit of the Prime Minister to one of his electorates in Colombo City. There he was supposed to inaugurate some community centers, but, what was more important for us, he was going to visit some slums and shanties in the area, to resolve some of their problems.

We arrived at the meeting point, outside of a primary school, where all the top managers of the multiple agencies involved in housing and development in Sri Lanka and Colombo were present. The agencies' General Managers were accompained by their Deputy Managers, who in turn were accompained by their immediate Division Officers, forming a sort of

bureacratic batallion. The Prime Minister arrived, and after attending a small reception at the school the large retinue of bureaucrats followed the Prime Minister to a nearby shanty area. Some of the residents spontaneously approached the Prime Minister and explained the ploblems that they were facing as a community. He, then turned to one of the top managers of NHDA and asked for some briefing on the agency's plan to improve the settlement. The manager, who seemed to have been prepared for such an inquiry, called one of his young officers who jumped from the crowd with a plan on his hand and began to give the pertinent explanations to the Prime Minister. Another agency's top manager was called by the Prime Minister to the circle and more questions, answers and explanations came forth. Finally the Prime Minister made on-the-spot decisions on the matter at hand and briefed both managers on the actions to be followed. This same operation was repeated several times in different sectors of the electorate with the participation of diverse agencies' and their managers throughout the afternoon. The day ended with a general address by the Prime Minister to the community. Strategically placed loudspeakers carried his voice through the intricate streets of the electorate.

What this story illustrates, is how government agencies get aligned behind political power, but also how political power can support the plans of certain government agencies. It also demonstrates, how political power can act as a co-ordinator in enssuring the allocation of resources from other agencies to a particular project, so that its success is guaranteed.

PROGRAM FORMULATION & IMPLEMENTATION: THE HCDC SPECIAL COMMITTEE DECISION-MAKING PROCESS.

As it has been mentioned earlier, the Special Committee is the one which practically resolves which components out of the ones requested are going to form part of the program, while the HCDC ratifies and supports the Committee's recommendations.

The Special Committee, after receiving requests for intervention addressed by organized communities or politicians to the HCDC, studies them to determine courses of action. Certain criteria have been developed in order to decide whether or not to intervene in an area.

Four basic issues are considered: (10)

1. **Location:** determines to a major extent if a settlement can be upgraded or not. Settlements are considered difficult or impossible to upgrade if they are located near the center of the city; if they are subject to serious flooding or if land filling is too expensive to be attempted; and if they are located in land reservation areas with no possibility of negotiation with the pertinent authority for permanent status.

A diagnosis done by the Slum & Shanty Division (1979), which categorized slums and shanties according to four alternative courses of action (see appendix 6) is also used as a reference to decide intervention.

2. **Land ownership:** priority is given to settlements located on land belonging to the state or local authority. The reason is that in almost all the upgrading cases in Sri Lanka the usual policy has been to heavily subsidize land. Therefore, the government does not want to get into using scarce resources by buying land from the private sector.

3. **Size:** A minimun of 30 families is considered as a manageable size to justify intervention. Areas are categorized into small and large interventions, depending on the size of the area and the degree of intervention needed.

Small interventions are handed to other agencies or municipal departments over which HCDC has power. For example, water supply and communal toilet needs are handed to the Community Amenities Board; garbage collection, nurseries, and social services are handed to Municipal Departments; and flooding problems to the Reclamation Board.

Large interventions are addressed to The Urban Housing Division of NHDA for further study and, eventually, for implementation of a project.

(10) These criteria evolved from previous experience of NHDA's Urban Housing Division Managers as former Slum & Shanty Division Officers, as well as on their past year experience within Colombo HCDC.

4. **UNICEF Resources:** another major factor for deciding whether to intervene, is if the area meets UNICEF criteria for intervention, (basic health and nutrition problems). These are the cases where basic infrastructure is needed and can be funded by UNICEF, and implemented by the Community Ammenities Board.

The criterion seems to be a practical one, in the case that the guiding objective is one which aims at maximizing the use of existing government financial and institutional resources.

The information needed to screen the potential areas through such criteria is basically gathered by members of the Special Committee and Health Officers of the Municipality in an ad-hoc visit to the site. The latter focuses on collecting basic data about the number of families and units, the condition of units and site, density, etc. The resulting information/decision-making structure, is one where the information-holders and the decision-makers constitute one body which functions slightly removed from the low income situation, (see Fig. 2.8).... thereby, establishing a coupled 2nd level information/decision-making structure, (see part 1.3. pg. 26).

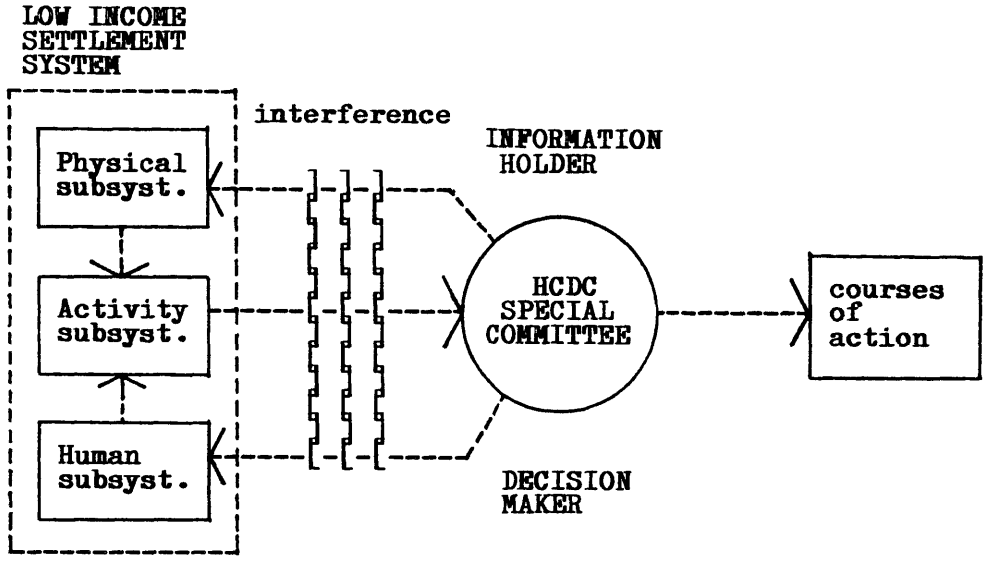


Fig. 2.8: HCDC SPECIAL COMMITTEE INFORMATION/DECISION-MAKING APPROACH: COUPLED 2ND LEVEL

This approach seems to be a sensitive one considering the level of questions to be addressed. The Special Committee does not get into time- consuming data gathering through structured surveys, but seeks basic information in an ad-hoc manner.

Communication within the decision-making structure essentially takes place between two actors, the HCDC and the Special Committee, thus, the politicians and the professionals. The communication/decision-making structure established is a bidirectional one, (see Fig. 2.9), where transfer of information on options and alternative course of action is limited to these two actors. Issues are resolved on the HCDC and Special Committee level, and the decision is transmitted to the community. Communication with the community is unidirectional, and the community's participation is limited to initiating the process, through its request for intervention.

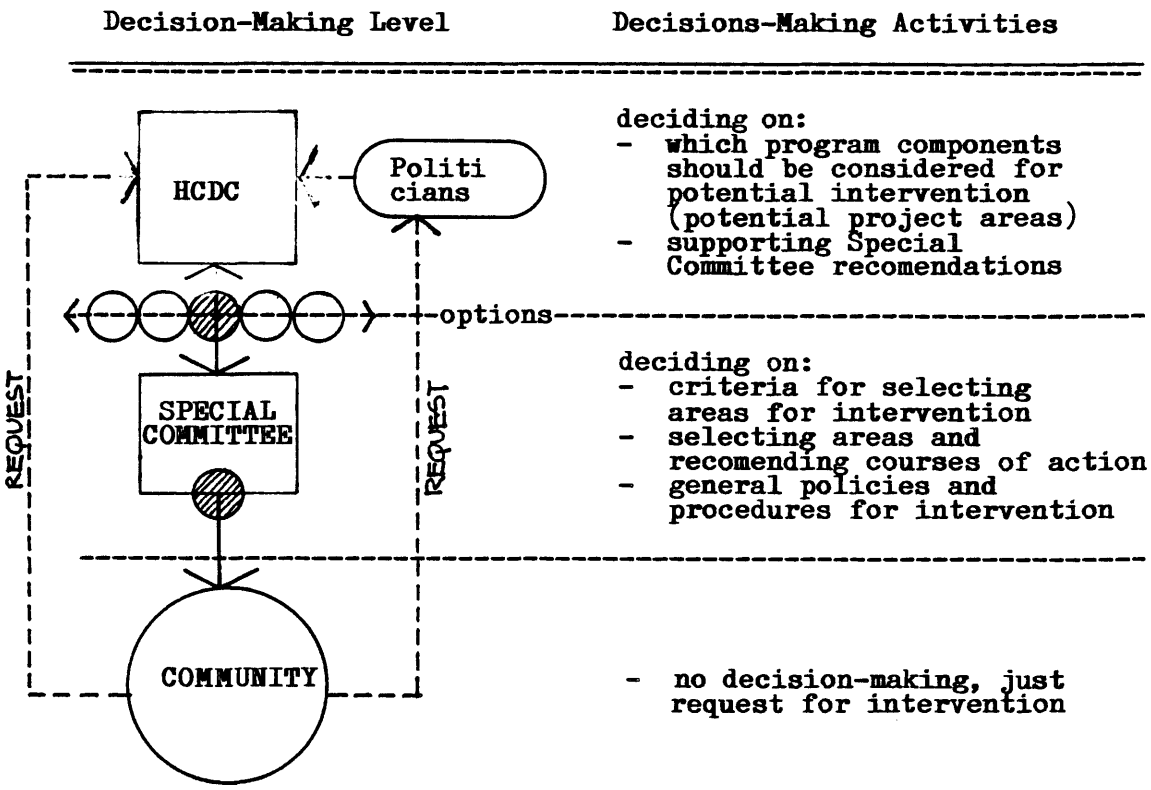
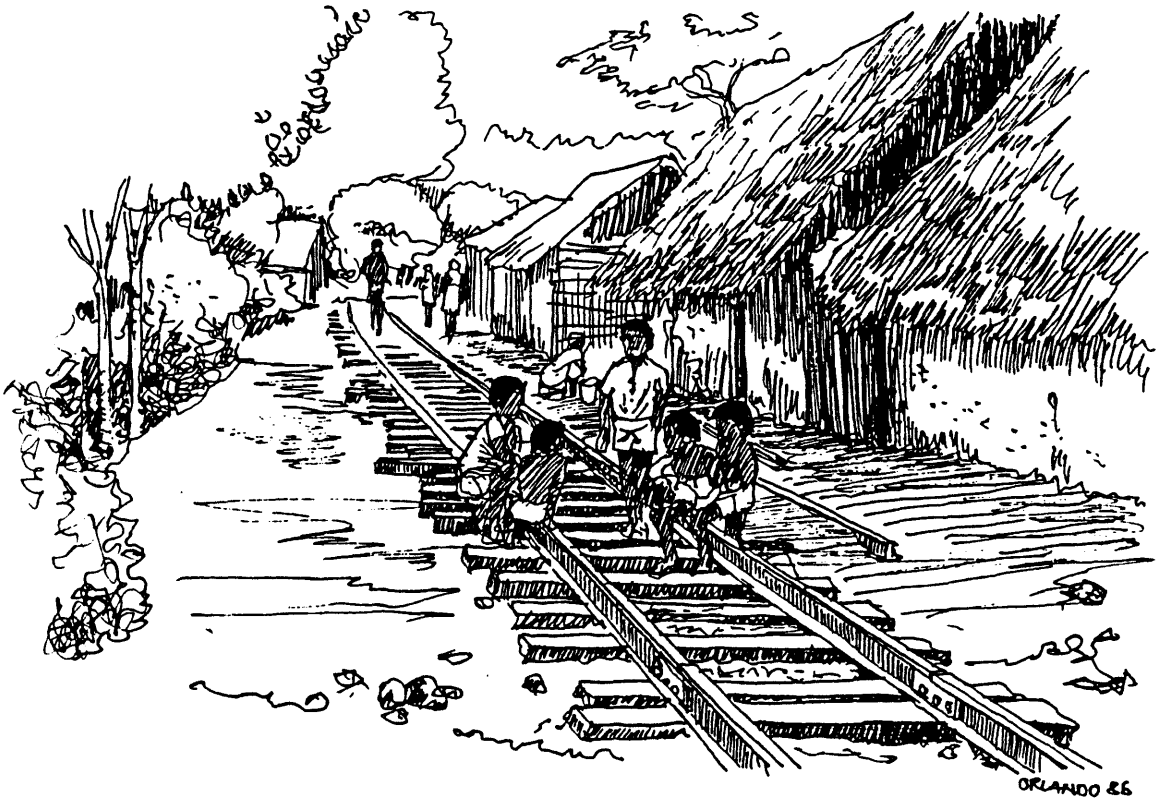


Fig.2.9: COLOMBO HOUSING & COMMUNITY DEVELOPMENT COUNCIL COMMUNICATION/DECISION-MAKING STRUCTURE

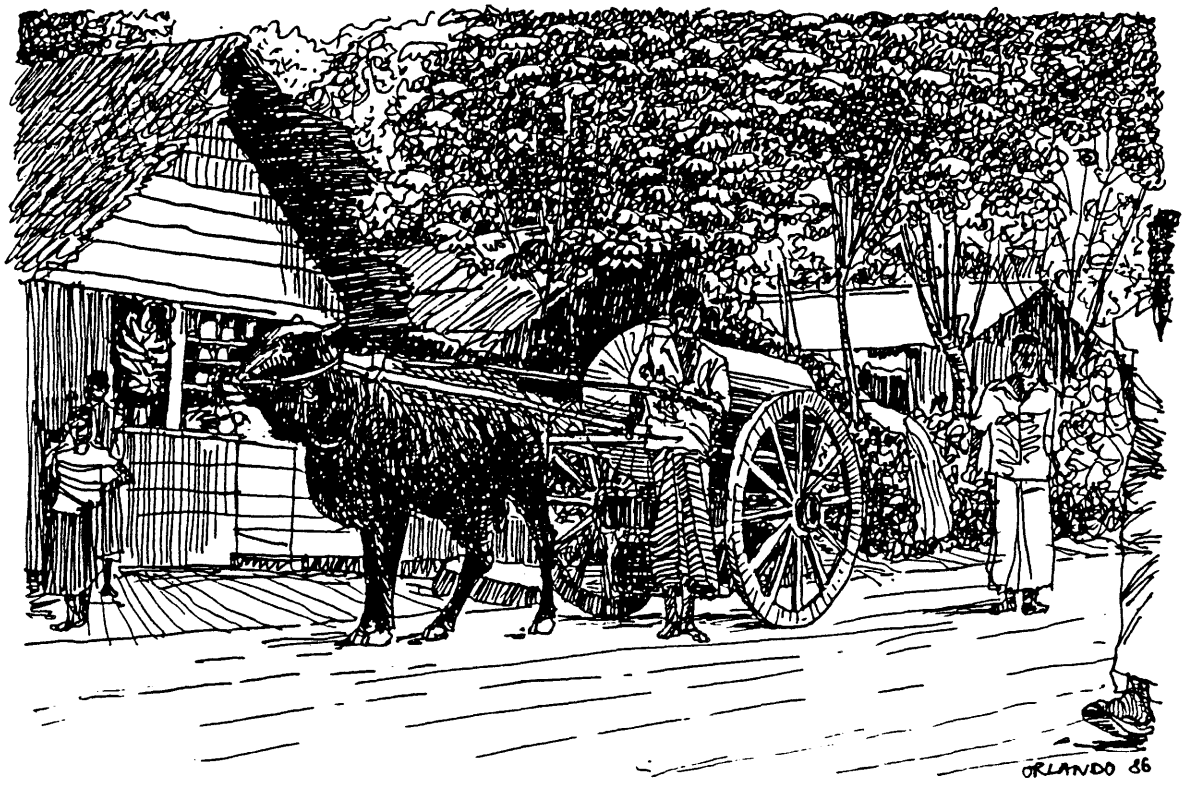
The overall result is a decision-making process where no real planning --understood in the traditional way-- occurs. Instead, Colombo HCDC operates through mere ad-hoc responces to emerging exigencies. The prevailing criteria for deciding where and how to intervene is a combination of political interests and professional judgement, where the former is the one which delimits the area and the latter can judge and operate upon it.

It is hard to judge such an arrangement. On the one hand, one would like to see a less politicized process, where criteria for funds allocation respond more to the real needs than to the political interests of a few . On the other hand, there is no basis to ensume that a more rational and technical approach will achieve better results. What the actual system is doing is to channel by one means or another real community requests,-- biased or unbiased. And this fact is undeniable. What might be done to improve this system is to assure the existence of more open channels of communication for the community to reach program decision-makers.

Wanathamulla Block D2, highly dense area, August, 1985



Wanathamulla Western edge, shanties along the railway track, August, 1985



Saranapalahimi Road, informal shops and fuel vendor, Wanathamulla, August 1985.

2.5. PROJECT DECISION-MAKING AND INFORMATION: THE CASE OF WANATHAMULLA SHANTY UPGRADING PROJECT

This part will examine the case of **Wanathamulla**, a shanty area upgrading project, located in Colombo, Sri Lanka. It will focus on the decision-making process, at project level, that took place, in relation to the project formulation and implementation activities. In particular, it will attempt to understand the relationships between: a) the type of information used and the way it was gathered and managed, and, b) the decision-making structure established, its problems, oportunities and consequences.

In doing so, it will also identify arising issues as well as identify possible lessons to be learned out of the approaches taken.

CONTEXT AND FOCUS

Wanathamulla shanty area is typical of shanty situations commonly found in Colombo. Shanties proliferate on vacant land which has been reserved for canals, road and railroads. The, land has little or no control mainly because it is disused and reservation regulations are not enforced.

At Wanathamulla all these three situations happened to occur together in parallel form. The site consists of strips of land in between a railway track along its western edge, the Saranapalahimi Road forming its eastern boundary, and a canal in between them, (see Fig. 2.10). This long and narrow settlement of 13 hectares, has been home for squatters since 1930, and currently has a population of over 1,200 families, that is over 8,000 inhabitants living in more than 980 structures, and making up the largest shanty area in Colombo.

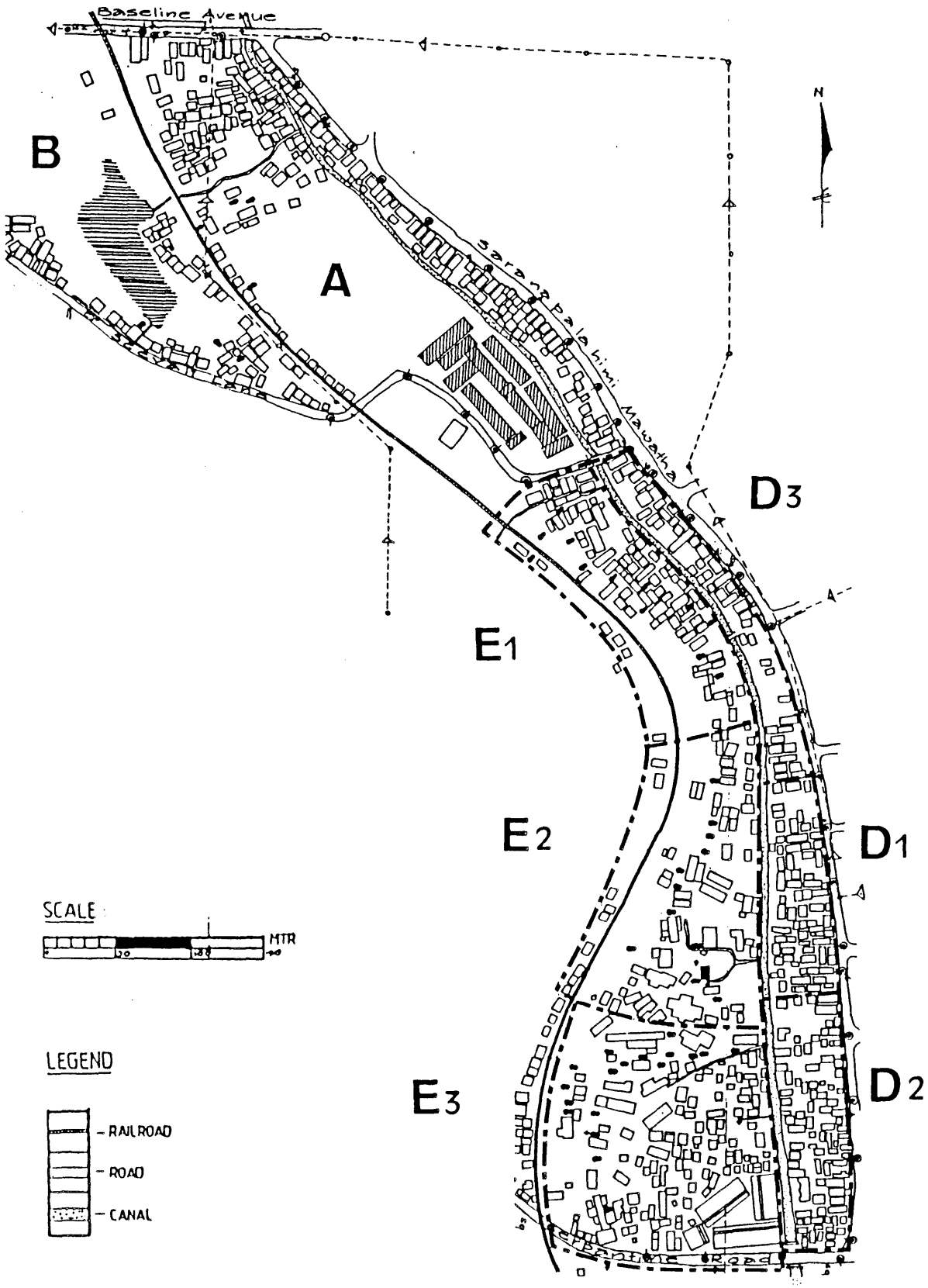


Fig. 2.10 : Wanathamulla Base Map, 1982

Eventhough there are some brick structures, the majority of the houses are timber boarded or wattle and daub shanties. Water is available at some standposts along Saranapalahini Road and at a large number of wells. There are few amenities and surface water as well as effluent from latrines ends up into the open canal running from north to south through the area, worsening the prevailing poor conditions.

Living conditions at Wanathamula are similar to any shanty area in Colombo: a substandard level of services and provition of infrastructure, a high percentage of "provisionary" housing units, high levels of infant mortality, malnutrition, unemployment and underemployment, high densities, etc. On the other hand, like most shanty areas it contains an impressive level of production, trade and service activities, which form the economic base of many of the families living there. All these activity generates a lively environment; it is made an integral part of the city through the creation of links with the city-wide network of production and services activities.

This part of the thesis will examine the government intervention in trying to improve the living conditions within this shanty area. It will focus particularly in the activities performed in three of its blocks (Block D2, D3 and Block E) (see Fig. 2.10), where improvements are on their way at the present time, but where very different approaches were taken in terms of both, the decision-making process, and the management of information for deciding on formulation and implementation of activities. It will specifically look at the differences that were established in relation to the residents' access to decision-making and the transfers of information among the different actors concerning the existing improvement options.

WHAT GENERATED GOVERNMENT INTERVENTION IN THE AREA?

Since 1981, the Slum & Shanty Division was involved in data gathering at Wanathamulla, with the objective of including the shanty area as one of the International Year of Shelter (IYSH) Demonstration Projects for 1987. This included carrying out all the basic surveys determined in their upgrading procedures (land, enumeration,and baseline surveys).

Fig. 2.11: Sketch showing rebuilt area in Block D1.

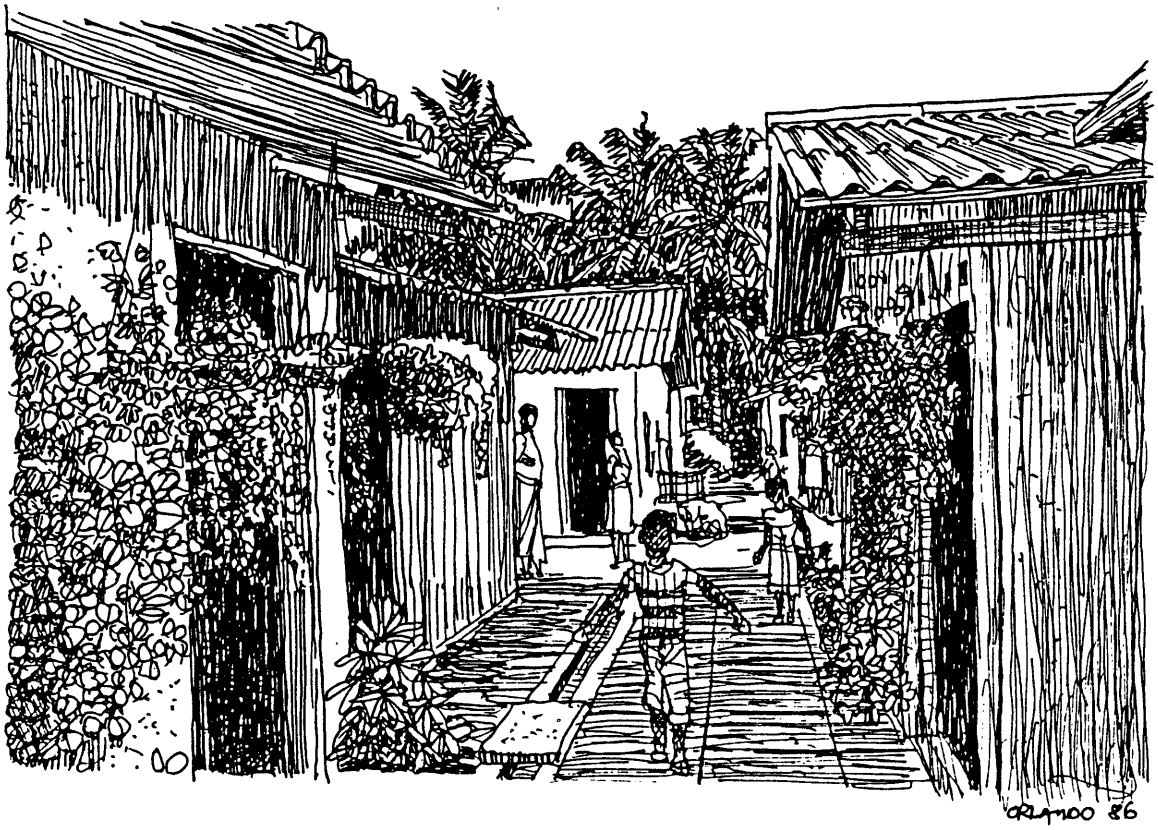


Fig. 2.12: Sketch showing rebuilt area in Block D1.

Like in many other cases, Wanathamulla did not become a priority area for intervention until a highly political incident raised the attention of the authorities and of the public. Forty seven structures were set on fire one night in Block D1, leaving more than 60 families deprived from their shelter and personal belongings. The ones accused by the squatters of commiting such action, were some elements of the Air-force housed accross Saranapalahimi Road.

The motive behind the incident was said to be a kind of "vendetta" which was not completely clarified, and the authors were never identified. The Prime Minister, intending to calm the squatters and public opinion in general, decided to restore the lost structures at government expenses (11). This came to be the first step for legitimizing, formalizing and improving the "illegal" shanty area of Wanathamulla.

The Slum & Shanty Division at this time (1983), was commissioned to undertake the task of restoring the destroyed structures. The particular situation was rather simple. Given an empty site, it was merely a matter of designing a basic layout, allocating the plots to the affected families, and building the units, (see Fig. 2.11 and 2.12). But the implications of such actions were to become much more relevant. Once the government stepped in, formalizing the settlement, providing access streets and basic infrastructure to these 60 families, it established a precedent and a level of provision that was going to be used by the rest of the residents as a reference for basing their claims and as a means for preassuring authorities to intervene in the whole area. It became a pure matter of equity.

This is precisely what happened. The Slum & Shanty Division's improvement plans for the rest of the area, were constantly compared by the settlers with the standards attained in Block D1, therefore, indirectly setting up the terms of reference for the whole project.

(11) The Urban Development Authority was to allocate funds for the reconstruction of the structures and the provition of infrastructure and amenities

SLUM & SHANTY DIVISION GENERALIZABLE UPGRADING PROCEDURES

The Slum and Shanty Division has been working since its creation with several sponsor agencies. Among them, HABITAT from U.N. has been one of the most active ones. Its major activities with the Slum & Shanty Division have been centered around the development of four Demonstration Projects (12) which are to be presented for the International Year of Shelter (IYSH 87).

During the Slum & Shanty Division's independent life, HABITAT collaboration included the development of Slum & Shanty Division institutional capacity through the training of its staff and the elaboration of several procedural guidelines. Among them, the development of generalizable upgrading procedures for the IYSH Demonstration Projects are of special analytical interest to this thesis, especially the ones referring to the formulation stage. (see appendix 2, Slum & Shanty Division Upgrading Procedures).

Slum & Shanty Division upgrading activities included the preparation of four basic plans of action which covered the following components:

1. Basic infrastructure amenities and site development plan
2. Tenure regularization & plot allocation plan.
3. Community services plan.
4. Housing advisory services plan.

The first two plans of action are the most important in terms of resource needs and the complexity of the operations involved.

The Slum & Shanty Division enters the scene by making a reconnaissance survey of the site and an examination of the shanty status, focusing on physical, land/legal conditions, as well as existing resources on the area. The objective is to decide on the feasibility of intervention. If feasibility is demostrated, the project team discusses the intention of intervening with the interested groups, (residents, sponsors, NGOs, etc), and evaluates their committment to cooperation.

(12) Wanathamulla originally was one of the four IYSH Demonstration projects which after Slum & Shanty Division incorporation to NHDA is now the shared responsability of HABITAT and UHD of NHDA.

After committment is attained and the level of community organization is identified - to either establish a Community Development Council (CDC) or reinforce the existing - , a relatively long process of physical and socio-economic data gathering starts.

Some of the basic surveys to be carried out are:

1. Physical/technical survey: land surveyors prepare a detailed plan of the site situation, including location of housing units, main infrastructure lines, location of existing public amenities, mayor roads, pedestrian passages, trees, etc.

2. Enumeration & registration survey: focusing on physical quality of housing units, socio-demographic characteristics of the households, as well as their composition and employment status. (see appendix 3)

3.Land/legal ownership survey: investigation of land ownership and legal status, with the objective of starting negotiation with owners to transfer or acquire the land.

4. Technical survey: the status of services in the nearby area, as well as identification of planed extentions.

5. Baseline survey: household sample survey. Extensive survey which includes data gathering on demographic characteristics, housing & services characteristics and performance, deficiencies and resident preferences, employment and income status, and finally community organization aspects. (see appendix 4)

Based on the information gathered in these surveys the project team defines the target group and elaborates a statement of objectives. Following this, the project team starts the preparation of the plans of action mentioned above.

It is assumed that during the preparation of the action plans, a series of consultations are carried out with the community. Residents revise the plans and comment on them. They are then modified according to the feasibility of the community proposals. Plans of action are then finalized and presented in a project document to the top management together with statements on:

- the nature and magnitude of problems in the area
- project objectives
- description of major activities
- existing resources
- definition of participating groups
- methods of implementation
- time schedule
- plan of monitoring

After the approval of top level managers, the project is then ready to enter its implementation stage.

It is important to mention that these generalizable procedures present an ideal, logical and linear process which is intended to serve as a guide, but in the real process the referred steps are highly overlaping and may occur simultaneously. Thus, it seems suitable, after describing the ideal project formulation steps, to look at the formulacion process that took place in Wanathamulla blocks D2, D3 and E.

WANATHAMULLA, BLOK D2 PROJECT FORMULATION: A PREDETERMINISTIC AND PLANNED APPROACH

DESCRIPTION OF THE ACTUAL PROCESS

Formulation of intervention in Wanathamulla, Block D2, followed the procedural steps presented above to a major extent. Detailed and extensive surveys were carried out, data was analysed, community problems and priorities identified, and plans of action developed.

It was established early in the project that land regularization & plot allocation together with the provision of access streets, communal toilets and standpipes were the priority actions to be implemented in addressing the needs of the block's population. It was also agreed that, considering the residents' reduced access to capital, a Rs. 15,000 loan at subsidized interest rates, would be available to interested residents for upgrading their houses. The loan was to be issued and administered by the Peolple's Bank (government bank).

The level of infrastructure provision and plot sizes was based on minimun standards specially developed for slum and shanty upgrading projects, (see appendix 5), which were very similar to the ones provided in Block D1. Meanwhile, negotiations regarding the transfer of land to the Urban Development Agency (UDA), and the agreement on a minimum reserved right-of-way were carried out with the Water Board and the Department of Roads.

Once available land was determined, several land regularization schemes and street layouts were developed and discussed within the project team. Finally a street and plots layout plan, as well as, an infrastructure and amenities plan was worked out by the project team, (see Fig. 2.3). The proposal considered the creation of an interior street which would ran paralell to the canal and Saranapalahimi Road, and the opening of several access streets perpendicular to the first one, establishing a gridiron layout. Communal toilets and showers were to be located along the interior street in the corner plots where the access streets met the interior street, and an existing standpipe network, (installed by Colombo Municipal Council some years ago), was to be reinforced by adding new ones along Saranapalahimi Road.

The rectangular and regular layout proposed contrasted with the irregular disposition of units on the site. In practically all the cases the disposition of plots involved the transport of the existing housing units a few meters, or otherwise the redesign of its form to fit the shape of the plot. The housing units that were affected with the opening of the new streets and the location of the communal toilets, were either to be located in a nearby plot or to be relocated far from its actual location in Block B, where the overspill area was planned to be located.(13)

Resulting land for plot allocation was divided into relativelly equal plot sizes of a minimun of 1.5 perches (38 m2) per family, which were to be leased to the families for a 40 year period.

(13) Marshy land in Block B was to be filled to create the overspill area.

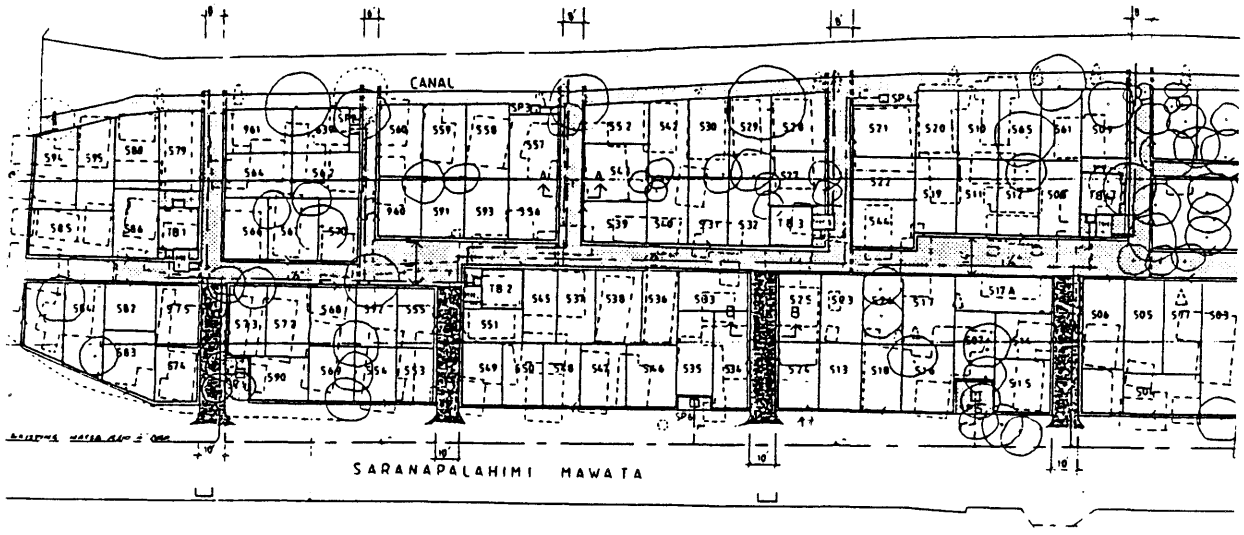


Fig. 2.13: Regularization Proposal, Wanathamulla Block D2

The plots' regular size and rigid layout, as will be described later, created problems to the community because it failed to take into consideration the variability of family sizes and the existence of extended families living in physically and socially cohesive aggregations.

During the early stages of data gathering and project formulation (Oct. 83) a Community Development Council (CDC) was established in the block to start organizing the community towards their future participation in plan revision and project implementation. However, the Community Development Council was not very active in the area. It was decided to present the land redistribution plan, and infrastructure/amenities plan to groups of individual householders for revision and discussion, and a door to door negotiation began. Families staying in the block were informed of the new plots they were allocated to, and briefed about the need to transport or reshape their houses to fit within the boundaries of their new plot. On the other hand, families affected by the streets opening were briefed on the procedures they would need to follow in moving to the overspill area, and on the type of support they would receive to build their new house, (14). A system of ex-gratia payments was devised whereby those families who were required to completely demolish would be given Rs. 1,000 and for partial demolitions, Rs. 500.

Discussions with the community did not alter to any significant extent the original plans prepared by the Slum & Shanty Division, and project implementation began as planned. Surveyors, encountering immense physical difficulties, pegged the layout of the plots on site and residents of the Block were encouraged to move their structures within the boundaries of the plots they were designated to, before opening the streets and beginning digging for the pipes. The community's actual understanding of the implications of what was proposed finnaly hit them when they had to face the reality of moving and realized the time and energy that this involved.

(14) In August 85, while plans for Block D2 were under implementation, overspill area in Block B was yet not ready to receive the families. No land filling have taken place due to unsolve storm-drain engineering for the marshy land. Thus, it was decided to move 12 affected families to a less denser area in Block E, were plots had been pegged.

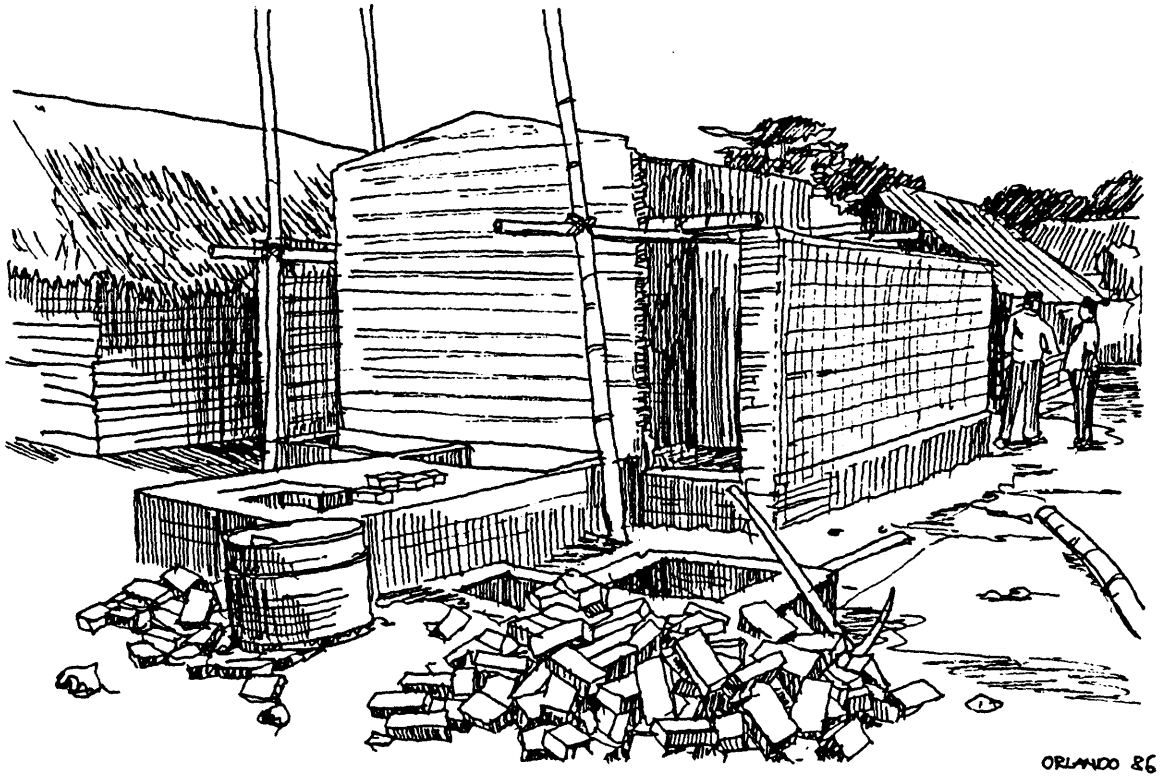


Fig. 2.14: Sketch showing communal sanitary units under construction in Block D2, Wanatahamulla, August 1985.

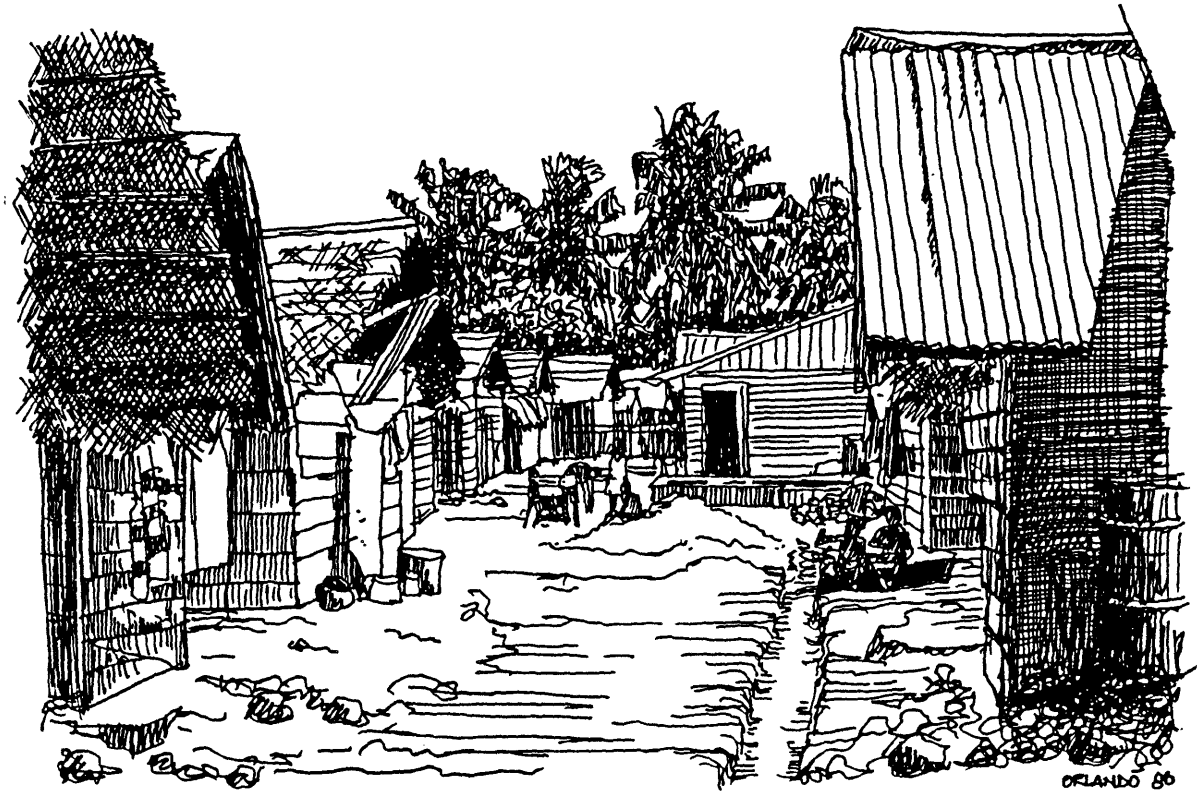


Fig. 2.15: Sketch showing aligned relocated structures in Block D2, which define an interior street, Wanatahamulla, August 1985.

The moving process occured very slowly and with strong opposition coming from the settlers. The project team decided to start pipe laying and construction of the communal sanitary units (15) so as to create some presure on settlers to move, but considering that ex-gratia paymenmts were delayed and the overspill area in Block B was not ready to receive the affected families, they were not in a strong moral nor legal position to enforce their plan.

On August, 1985, after more than 2 years since the first Slum & Shanty Division activities in Block D2 implementation was experiencing serious delays (16): a) leasehold deeds were not prepared due to incompletion of the handing overof land to UDA, b) land filling was completed up to an 80% but families could not move due to delays in storm-drain engineering and canal development, c) opening of streets was incompleted due to delays experimented by residents in transporting their structures or altering them to fit the plot's boundaries, and finally, d) loan disbursement was experiencing long delays due to People's Bank's reluctancy to give loans in absence of lease titles.

Nevertheless, other components of the action plans were meeting the program schedule and performing quite well: a) 4 communal sanitary units and 2 garbage bims were under construction, b) the water & sewerage systems were in their final stage of completion, c) a multi purpose building was constructed through an NGO (Save the Children) by the organized work of the community, and, d) other social promotion activities (community services, community education and training, health and nutrition, women's activities, small business loans , and industry & commerce training), were performed through the joint effort of the community and the NGO. (see Fig. 2.14 and 2.15)

Finally after more than 3 years of struggling involvement, Block D2 was inaugurated in February 1986. At this date all structures had been moved within the plots' boundaries, communal sanitary units were

(15) Communal sanitary units and infrastructure layout was contracted with a private builder and monitored by the Community Amenities Board.

(16) source: visit to site, interviews with Project Team and, IYSH Demonstration Project, Status report upto August 31, 1985.

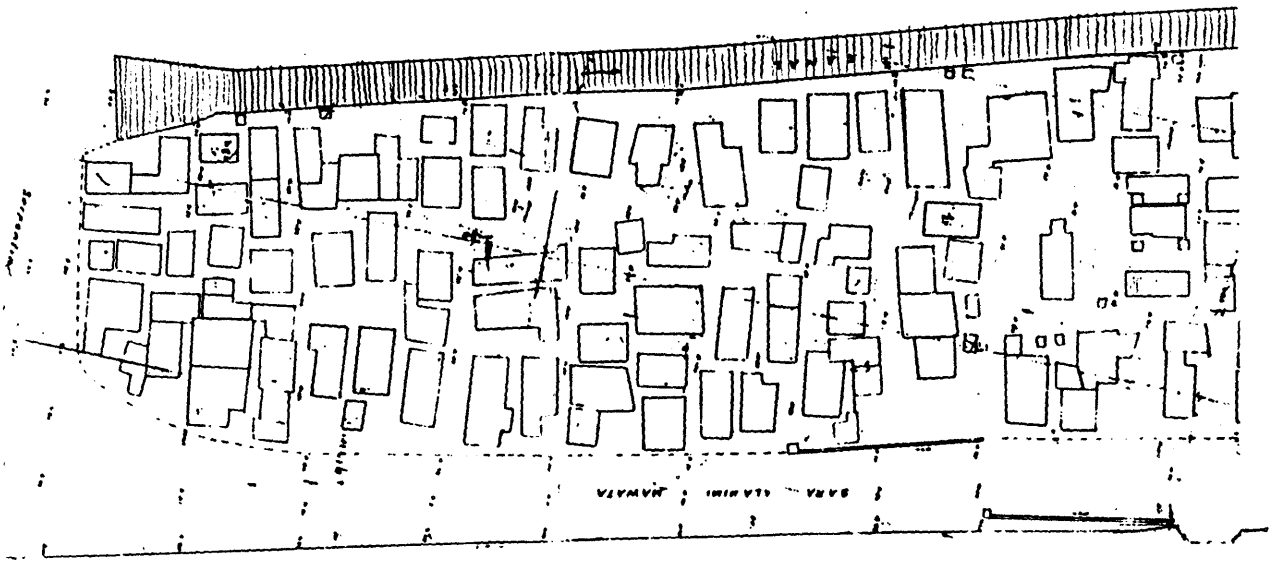


Fig. 2.16: First Survey Plan, Wanathamulla Block D2, April 1983

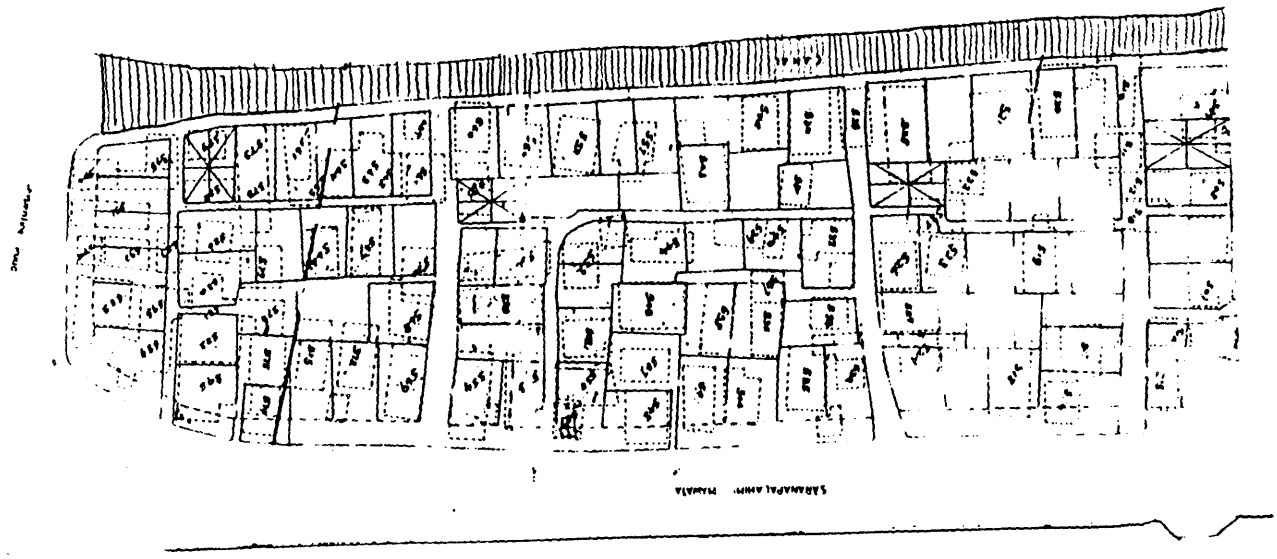


Fig. 2.17: First Regularization Plan, Wanathamulla Block D2, Dec. 1983

finished, sewerage, water, and surface drain systems were functioning, and access streets paved. However, neither all loans nor land leaseholds titles were issued at the date. Therefore, even though some households were able to upgrade their structures, --due to access to capital coming from relatives in the Middle East--, others were still depending on the promised loans, to begin improvements.

LAND REGULARIZATION & PLOT ALLOCATION PROCESS IN BLOCK D2

First Regularization Plan: Presentation to the community

The first regularization plan for Block D2 was presented to the community at the end of December, 1983. The plan was developed based on a rudimentary land survey (April 1983), which showed the main roads and canal, as well as the location of the housing, and a brief survey of the existing housing and amenities on site. (see Fig. 2.16 and 2.17)

The plan was prepared by staff at the Slum & Shanty Division office, who were very unfamiliar with the site conditions, resulting in an insensitive proposal to the many positive aspects of the area, -- existing trees were disregarded, proposed access was poor, and some plots were completely surrounded by others except for a narrow access path to the front door of the houses.

The community's main concern was the size of the individual plots, especially in relation to the number of families per household, and the size of the families. -- The established policy was to give one plot to each registered household, regardless how many families were connected to each one. -- They also indicated some concern about the flooding in the area during the rainy seasons, requesting that the canal banks be raised.

Improvement of Physical and Social Surveys

The Project Team, as a result of the meeting with the community, decided to: re-draft the plan, following a more sensitive approach to the existing situation by basing staff at the site; carry out a more detailed physical survey, in order that the plan should evolve more from the existing physical conditions; and, improve the graphic presentation of proposals to the community.

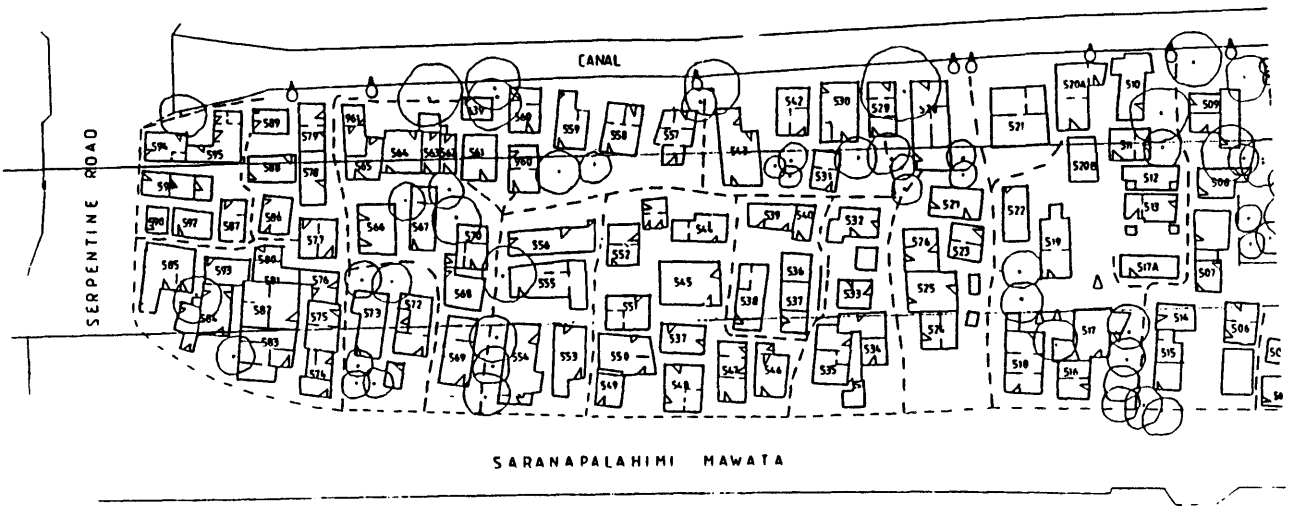


Fig. 2.18: Improved Physical Survey, Wanathamulla Block D2, January 1984

An existing site office, where a Technical Officer had been based to look after the fire affected area (Block D1), was partially cleared to make room for the new site-based staff. The action proved to be benefical for the progress of the intervention in Wanathamulla. Vincent Gizzi, a volunteer architect from the British Overseas Development Administration (ODA), who was serving at the project team, referred in his report to the action as follows:

> "It was an important step to base staff permanently at the site. This gave us the opportunity of working closely with the community, understanding some of the problems, and planning according to local needs and physical conditions. It was evident that this could not be done from an office several miles away by staff visiting the site occasionally."
>
> "Basing staff at the site also had a psychological effect, showing that something was being done. Up until then, for over a year, several staff had appeared, collecting baseline survey data, generally discussing approaches, but with very little actually being done."

An improved physical survey was built around the original survey during Jan. 84, (see Fig. 2.18). Houses were shown with doors, windows and internal partitions. Existing foot paths and access routes were also shown, together with all trees, as well as existing latrines and standposts. Data was also collected outlining construction type and condition of the units, which helped to form an overall physical picture of the area.

In addition to the physical survey information, household data was collected indicating the number of families per household, and number of residents per overall household. The hopes shared by the project team were that all the above survey material would create the basis for a more sensitive approach in formulating a Regularization Plan.

It is interesting to point out what appears to be a contradiction between the project team's argument to move to the site and the actual way of collecting information.

The project team assumed that by being more immediate to the local needs and the physical situation they would have access to more relevant information. Consequently, they would be more sensitive to the local situation in their planning. Nevertheless, they still put stress on carrying out detailed socio-economic and physical surveys as if planning was going to take place removed from the situation.

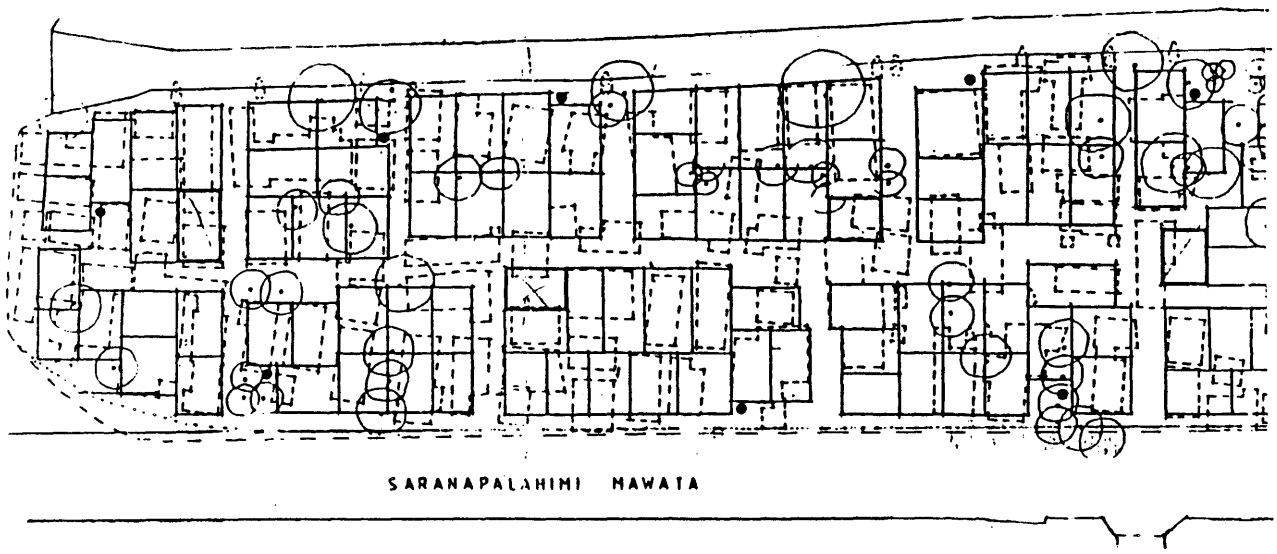


Fig. 2.19: Draft Regularization Plan, Wanathamulla Block D2, January 1984

What this might illustrate is the power of the popular idea that more information leads to better planning, an assumption which most of the time, is not true.

Formulation of Second Regularization Plan

During a series of project team meetings throughout January, 1984 technical and managerial aspects of the project were discussed. Technical aspects included deciding on infrastructure provision standards -- including width of footpaths, road and canal reservations, and the number of toilets and standpipes per person, the latter based on Slum & Shanty Division minimum upgrading standards (see appendix 5).

On the managerial side it was decided that: a) two technical officers and an architect were to stay on the site to collect survey data and generally to deal with daily problems involving requests from the community; b) a team member was to be based at the central office to deal with all the property and legal matters involved in the request of loans from the People's Bank; c) housing construction was eventually to be monitored and assisted by the setting up of a Housing Advisory Service also based at the site office; and finally, d) all project staff was to be co-ordinated by a project officer who would liase between office and site.

The architect based at the site began to work on the first sketches for the new Regularization plan (see Fig. 2.19). The plan was aimed at producing more open space, with each plot having at least one side completely open either to the open space or to a footpath, and preserving existing trees.

During several project team meetings in the first half of February the sketch plans were discussed in detail. Some members of the team argued that the proposed open spaces would be either squatted on or at least encroached upon by kitchens, gardens, or any additions. Discussions gradually established some design criterias which finally lead to the exclusion of open space, by providing it through slightly wider footpaths, wherever possible. This decision however, was really based on the high density existing in the area and the need to provide as many plots as possible in the least disruptive way.

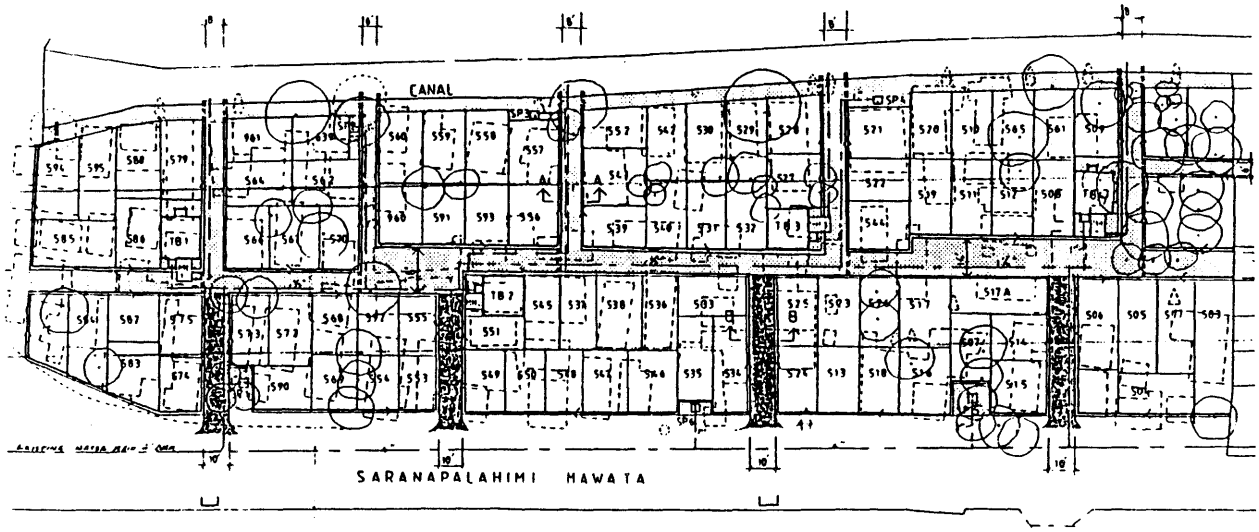


Fig. 2.20: Second Regularization Plan, Wanathamulla Block D2, Feb., 1984

In these early discussions it was agreed to allocate a minimun of 1.5 perches (38 m2) (17) per hosehold, and to try to give larger plots to the more densely populated households, causing as little disruption as possible. The criteria proved to be nearly impracticable due to the complexity of planning with such diversity of family sizes and the varied location of existing structures.

The architect referred to this difficult planning process as follows:

> "While planning D2 we had from the start aimed at causing as little disruption as possible. This was, in retrospect, a naive criterion on which to base the planning of such improvements in this type of settlemnt. The main outcome of this approach was that, while the 1.5 perches minimum was adhered, to plots allocated varied considerably in size -- some upto 50-60% larger than others. The planning processes were further complicated by attempting to relate plot size to household size. For instance, some households contained one family with two or three members, while others contained three families with a total of sixteen members. While the policy had been established right from the start of one household one plot, irrespective of of the number of families in the household, it seemed reasonable, if plots were to vary in size, to try and give larger plots to the more densely populated households. But this was just another criterion that was complicating the planning process to the point of unworkability, and often there was no way all the criteria, and all the people could be satisfied completely." (see footnote (9))

Presentation of Second Realocation Plan to the Community.

Eventually a draft plan was at the stage of being presented to the individual householders, (see Fig. 2.20). The layout resulted in a grid-iron pattern with centrally located open spaces linked to form a continous public footpath. There were four toilet Blocks, each containing six cubicules and bathing areas, and eigth standpipes were located around the perimeter, off the footpaths and roads.

A special project team meeting was held to discuss the method to be employed to put the regularization plan into operation. Emphasis was given to the number and nature of disruptions, and discussion went around the possibility of setting up "land tenure committees" and "loan scheme committees" as a means of putting the land regularization process into the hands of the Community Development Council. The consideration did not got very far because the Community Development Council was not thought to be sufficiently structured to perform these major tasks.

(17) 1 perche is approx 25 m2

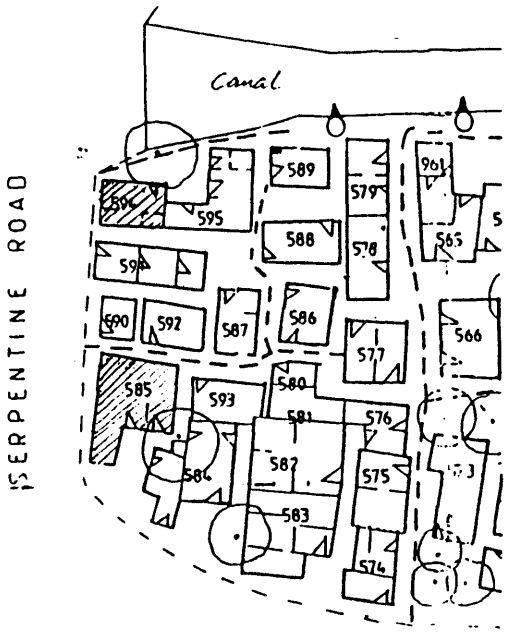


Fig. 2.21: Part Survey Plan showing densely housed area at the southern end of Block D2, Wanathamulla. Note structures 585 and 594.

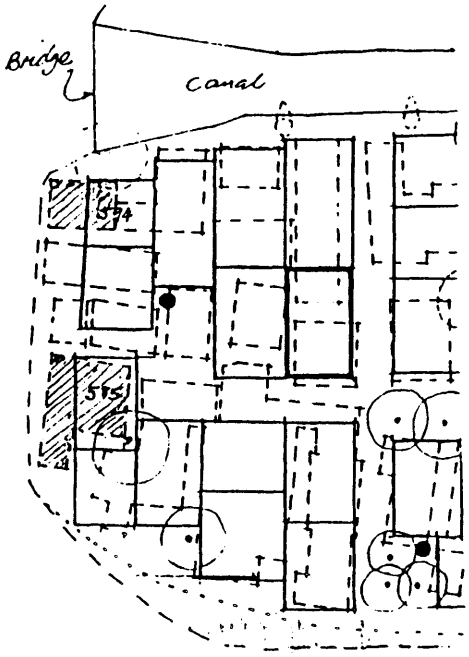


Fig 2.22: Part Regularization Plan of same area as Fig. . Note disposition of plots for households 585 and 594, which have been aligned with bridge to maintain a road reservation.

The architect of the project referred to the causes of the inactivity of the Community Development Council as follows:

> "The Community Development Council for Block D had been elected towards the end of October, 1983, but so far had not been particularly active. This was partialy due to the lack of suitable staff from Slum & Shanty Division, who could be involved full time in assisting the Community Development Council and encouraging participation. Furthermore, a paternalistic attitude still prevailed, whereby, the general impression was that UDA was giving and the community recieving. The community often expressed the opinion, as the project advanced, that they preferred the UDA staff to take major decisions involving plot allocations, etc; to avoid disputes within the community." (see footnote (9))

It was eventualy agreed that individual negotiations should take place, on a door to door basis, between the Project Officer and those households affected by complete or partial demolition by the plan.

Data sheets were prepared listing household numbers, number of families and members, whether structures should be demolished; the existing floor area and proposed allocation plots together with increase or decrease in area; and finally whether a long or short move was required for that household.

Door to Door Negotiation with Affected Families: Family Cases

Door to door negotiations began by late February 1984. Using the data sheets and a plan indicating the proposed relocations, households were informed of their future situation.

Household reaction to the proposal varied. The following are some illustrative cases (18) which raised the need to establish some overall criteria to be followed in the project:

Household 585:

> "A single family household of six people situated at the southern end of the site, on Serpentine Road, was being offerd 1.5 perches in roughly the same position; their house was a simple timber boarded structure with earth floor and corrugated iron clad roof. The front was used as a boutique and they asked for more space to accomodate the shop. Their existing floor area was 1.75 perches. So they were been asked to give up some space. Eventually, as it was not possible to allocate any more space on plan, they suggested they might want to build a two stories structure within their allocated plot. This was agreed upon." (see Fig. 2.21 and 2.22)

(18) source: Regularization in Wanathamulla by VincentGizzi, Colombo 85

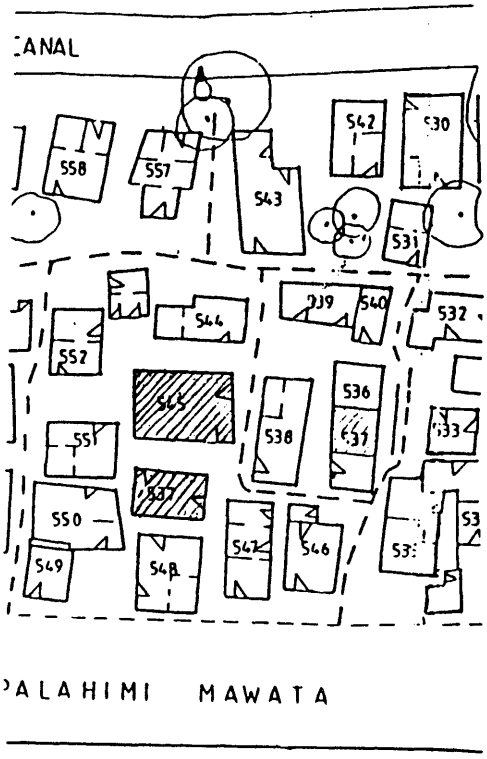


Fig. 2.23: Part Survey Plan showing two 537, the one on the right been the originally registered structure. 545 is also shown.

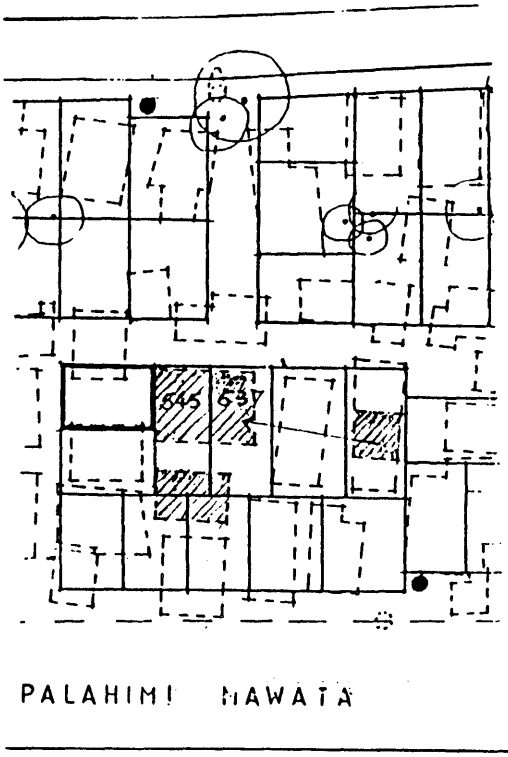


Fig.2.24: Part Regularization Plan, showing plot allocation for 537 and 545.

Considering that planning and building regulations had been relaxed for slum and shanty improvement areas, this case raised the need for establishing some sort of system of approval regarding construction, which would have to be applied for general health and safety reasons.

It was agreed that construction work would be monitored through the housing advisory service, which should assist householders in drafting plans, preparing adequate structural specifications, and checking construction consistency. The main concern was to ensure that no dangerous structures were erected. Other factors, like design, daylighting, ventilation, and finishes, were left very much up to the individual households.

Household 594:

> "A single family household also on Serpentine Road was being offered 1.5 perches, almost double their existing floor area. They were being asked to partially demolish in order that a road reservation could be maintained. In this case it was fixed as a line continuing from the walls of the bridge over the canal. This, at least restored a continuity in the road, which through years of gradual encroachment, had been narrowed down."
>
> "Demolition was not a problem, but their case was complicated by the fact that the existing householder was not the same person originally registered as occupying that house. So-called tranfer of ownership had taken place since registration, without the knowledge of UDA." (see Fig. 2.21 and 2.22) (see footnote (9))

Household 537:

> "This case was another example of the sort. At one point we found that two houses had this same number and it turned out that at the time of registration 537 was being rented. According to Slum & Shanty Division policy, then, the tenant recieved the registration card, as he was occupying that house at the time of registration. Sometime after this, the original owner returned and evicted the tenant. The tenant therefore, constructed another house close by giving it the same number. So we had the predicament of having a registered householder in an unregistered house, while the registered house was being occupied by an unregistered householder." (see Fig. 2.23 and 2.24) (see footnote (9))

These two cases raised the issue of transfer of ownership, and the need to set up a criteria to address it.

According to Slum & Shanty Division policy, transfer of ownership was not recognized and deeds could only be issued to the householder who was occupying a property at the time of registration. According to policy, case 594 was for practical purposes insolvable.

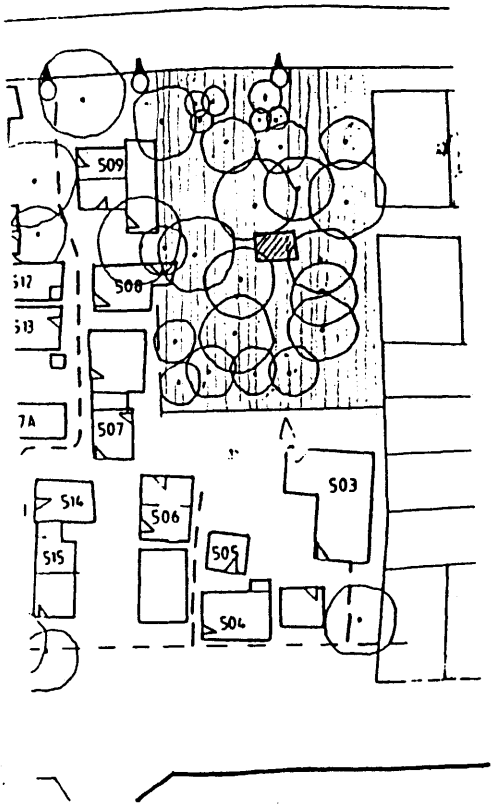


Fig. 2.25: Part Survey Plan, showing northen end of Block D2 next to D1. The area shaded has for years been kept for fruit trees and animals.

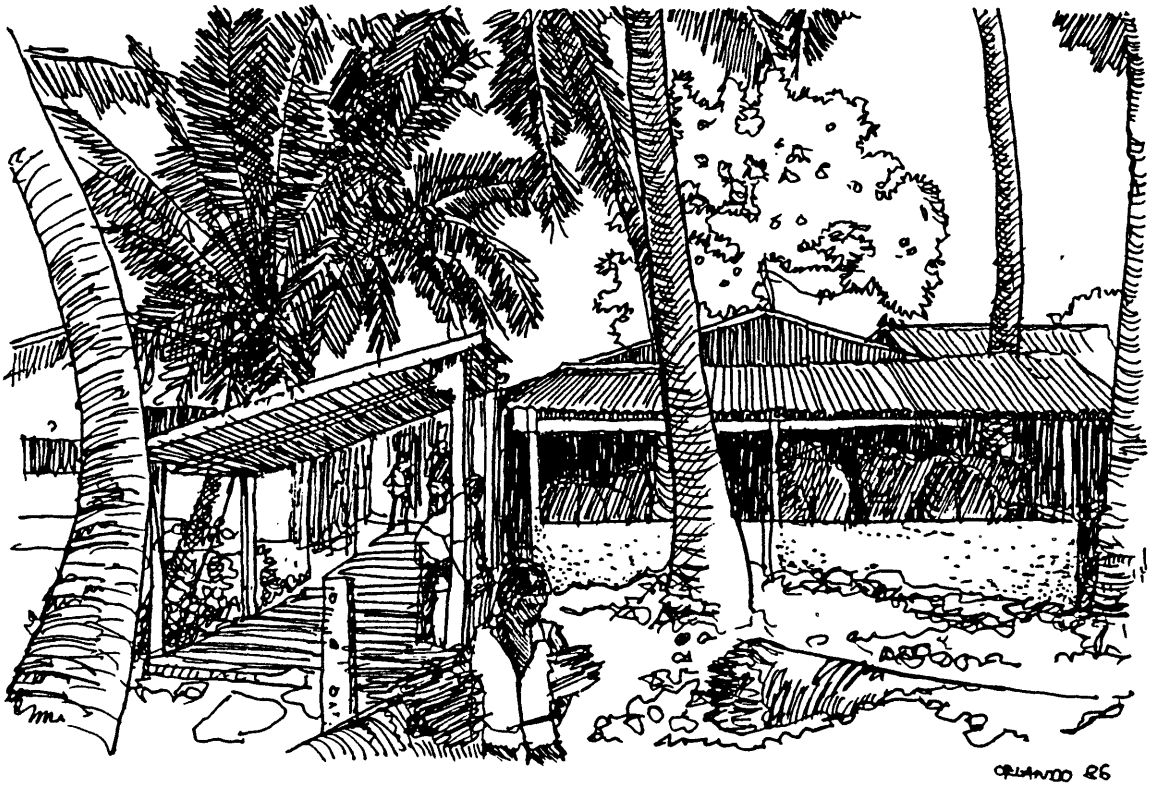


Fig 2.26: Sketch showing animal area in Block D1-D2 boundary, Wanathamulla, August 1985.

The Community Council was consulted on the tenant matter, and it was decided that, in this case, according to present policy, the tenant was entitled to the plot. In addition to this problem, the legal householder may often have been away during registration. In such cases, this was usually resolved by obtaining proof that the householder was occupying the house at that time. Generally the neighbours provided the necessary proof.

Household 545:

> "This was a single family household with five members who kept animals for a living. It was a timber boarded house with a corrugated iron roof, and an overall floor area of two perches. Part of the house had a separate entrance and was used for keeping goats. They refused to give up their goats, but we explained that we did not feel it would be possible to keep animals, certainly in this part of the area." (see Fig. 2.23 and 2.24) (see footnote (9))

Householder in D1-D2 boundary:

> "Again regarding animals, a householder who owned a house in D1, adjoining the northern end of D2, occupied some 12 perches in D2 next to his house. For years he had cultivated coconut trees and kept cattle on this land. Unpleasant wastes from the animals found its way from an animal shed in the center of his area, eventually ending up in the canal It was obvious then, that this condition could not remain in a situation where we were attempting to improve the levels of hygiene and sanitation. Perhaps more to the point we needed the space." (see Fig. 2.25 and 2.26) (see footnote (9))

These two cases raised the issue of tradeoffs between maintaining income generating activities of rural nature v/s generating more space to create needed plots.

Householder 545 was notified that the existing municipal laws did not allow keeping animals in the area, but no one was quite sure how laws should apply to the special project areas, nor if the law was to be enforced at all. The final decision was left to the individual's own discretion, and ultimately subject to the community's tolerance.

In the latter case a series of negotiations eventually left him with four perches, on which he could perhaps keep one or two cows and retain some of his trees. The rest of the land was used to relocate three households from the denser area towards Serpentine Road, as well as locate a toilet block with footpaths.

What all cases illustrate is that rather than a real negotiation between the project team members and the individual households, what really took place was more of an unilateral persuation process to make householders accept the proposal terms.

The negotiations continued for over two weeks until there remained seven unresolved cases, involving landlord/tenant disputes, the keeping of animals, unauthorized transferral of land and constructions, and unregisterd householders.

A list of problems together with the project team's recommendations for solving was submited to the Deputy Director, hoping that some policies or procedures would be established to assist field staff in deciding on the difficult cases. The Project Officer was worried about taking responsability for certain decisions where the procedure to be followed was not clear. But it was impossible for senior staff to offer any ready made solutions or least to decide on general procedures.

The whole thing resulted in a catch 22 situation, where no one wanted to take responsabilities for decisions. On one hand, top managers felt uneasy about deciding on specific issues which were unfamiliar to them. On the other hand, project team members were afraid of making decisions which senior managers would not support later.

This situation demonstrates how excessive delineation of implementation policies and procedures, --comming from senior managers removed from the field, can constrict the capacity of project team members in resolving procedurally unclear issues, in a more ad-hoc manner. Ultimatelly the case problems were either postponed or informally solved through interaction with crowds of community members, within the existing restrictive inter-departmental procedure. Eventually the final Regularization Plan was discussed with the community on a meeting at the beginning of April, in the hope that no more changes would be made.

Blocking Out

At the beginning of July delays were still being experienced in finalizing the Regularization Plan and in preparing standard drawings for the Bill of Quantities.

Delays were also caused in actually getting hold of a surveyor, which needed to be booked well in advance. Meanwhile it was agreed to work out a plan for the blocking out of D2 in various stages, to make sure that each household that had to move had a vacant lot to move to. Not only did this "chain" effect complicate the blocking out of the site, but also the need to ensure that ex-gratia payments were made on time. Otherwise householders concerned were unlikely to move.

Phase 1 considered the blocking out and therefore partial or complete demolition of houses on road and canal reservations, proposed roads and footpaths, with the remaining land set aside for housing.

Phase 2, would be to block out the remaining zones, access having been made easier for the surveyor.

Finally in Phase 3 all toilet blocks and standpipe positions could be located.

At the end of August a flier was issued that informed the relevant households that the surveyor was coming and that certain households would be requested to start demolishing their houses and move to their allocated plots. (see Fig. 2.27)

Due to inaccuracies of the final plan and difficulties in working under the existing field conditions, the three phases work plan was discarded and the surveyor drafted out his own accurate plan from actual measurements. The situation required flexibility and the surveyor chose to mark all the footpaths and access roads along Saranapalahimi Road, and ,wherever possible, to move back into the site towards the canal.

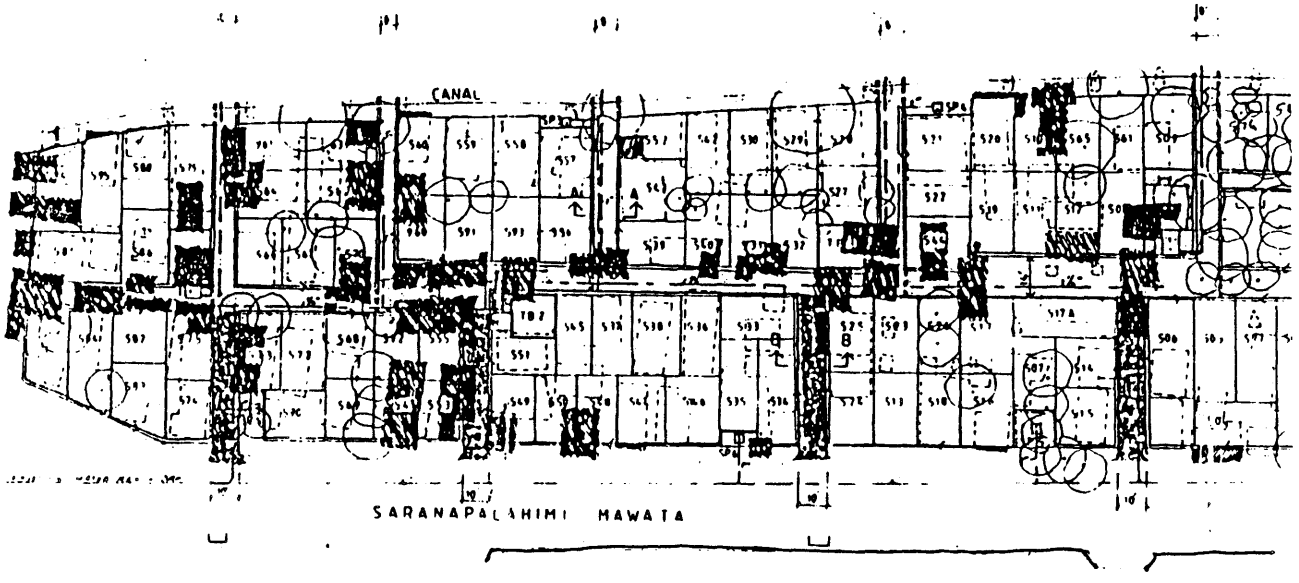


Fig. 2.27: Plan showing those houses required to be demolished or partially demolished under phase 1 of the blocking out to free space for propouses roads and footpaths. Wanathamulla Block D2

The situation was complicated by the fact that no demolition had taken place because it had become impossible to coordinate ex-gratia payments with the moves due to the long and bureaucratic steps involved in approving them. Nevertheless, the surveyor was able to peg streets and lots, sometimes planting marker stones in the middle of a house.

Relocations

Even though attempts were made to relocate households within their original blocks, in some cases it was not possible and the final plan left five households that needed to be relocated in another block. In this case, although it was going to cause them considerable disruption, the move was going to benefit them by increasing their actual area of occupancy, from less than .75 perch each, to 1.5 perches. Thus, when were approached, they all agreed to move.

A small area in Block E was chosen for relocation and a plan was drawn up (see Fig. 2.28 and 2.29). Midway through June, after some negotiation with the neighbours in Block E, and delays in the ex-gratia payments were solved, the surveyor blocked out the plots and footpaths and relocated households began clearing vegetation and redirecting surface run-off from wells, around their plots, towards the canal.

Although some neighbours in Block E complained that they had been living there for a long time and wanted the land divided up amongst themselves, they eventually agreed to share it. Eventually all major problems were solved and the five registered households plus an unregistered household were finally relocated.

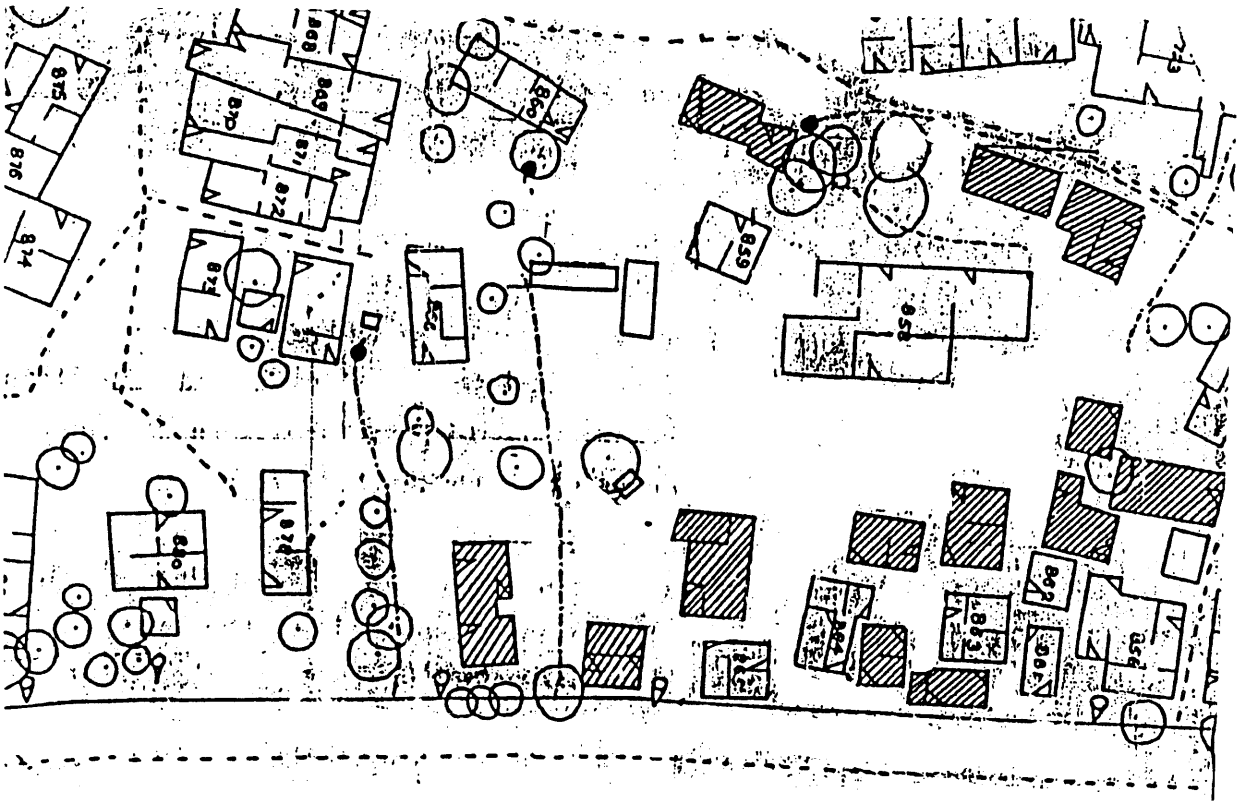


Fig. 2.28: Part Survey of relocation area in Block E2, Wanatahamulla.

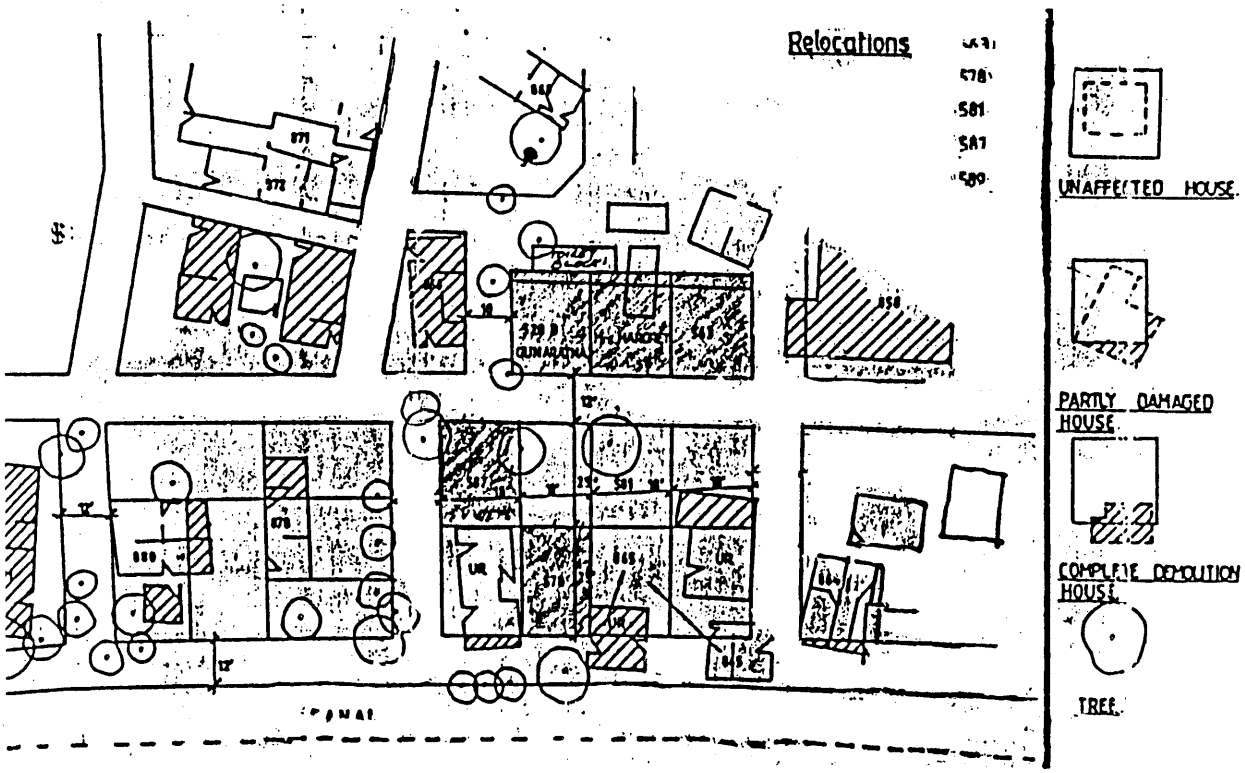


Fig.2.29: Plot Allocation Proposal for households relocated from Block D2, Wanathamulla.

ANALYSIS OF LAND REGULARIZATION & PLOT ALLOCATION PROCESS IN BLOCK D2

At this point the reader must be aware of the many problems that an excessively planned and deterministic approach brought about in the Block D2 Land Regularization and Plot Allocation Process. Two distinct decision-making approaches can be recognized in this case, which resulted in the two different Regularization Plans presented to the community. These approaches can now be analysed from an information/decision-making/communication point of view. An attempt will be made to reveal causes and consequences of establishing such decision-making structures.

First Land Regularization and Plot Allocation Approach: A Decoupled 2nd Level / Vertical Unidirectional Structure

The first Regularization Plan developed for Block D2 was the result of a typical information/decision-making structure where the people collecting information on the low income settlement were not the same as the ones who decided on planning and procedural issues. Moreover, information needs, thus information which was decided to be collected, was highly standardized. Surveyors were removed from the actual low income settlement situation, and so were decision-makers who decided on plans and procedures to be implemented. Therefore, the information/decison-making structure established in this approach belongs in the decoupled 2nd level category (see Fig. 2.30)

The outcome of such an information/decision-making structure at the project level is likely to be more insensitive to the existing low income settlement situation. It probably neglects existing potentials in the area, and increases the possibilities of missing and/or neglecting the particular problems of the settlement. Moreover, due to the increasing possibilities of focusing on irrelevant information, the process could even create new problems similar to those that it appear in the Block D2 case.

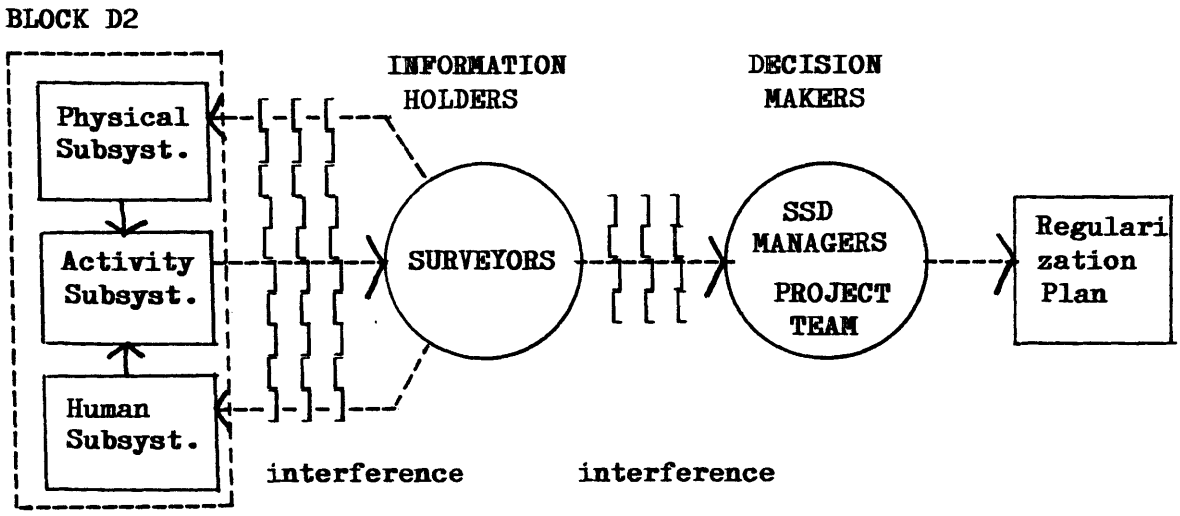


Fig. 2.30: WANATHAMULLA BLOCK D2 FIRST REGULARIZATION PLAN APPROACH: DECOUPLED 2ND LEVEL INFORMATION/DECISION-MAKING STRUCTURE

The communication/decision-making structure developed in this approach, (see Fig. 2.31) gave the senior management of the Slum & Shanty Division a key role in defining policies and intervention procedures for improving the settlement. These policies and procedures were defined to an extent that they carried a pre-established notion of what the product of the intervention should be, (i.e., land regularization on an individual/private basis tenure, and provision of basic infrastructure according to pre-determinated standards). But more important -- in terms of its negative consequences -- they also had pre-established policies and procedures on how this should be done. The project team was supposed to limit their activities to this pre-established framework, and make decisions mainly regarding which options could fulfill its objectives better, leaving little space for flexibility and creativity in developing more tailored policies and procedures.

The above discussion reveals that the communication relationship between these two bodies was basically vertical -- decisions taken at the senior managerial level were passed vertically to the project team level, without real involvement of the Project Team in the decision-making process, and without establishing any channel for receiving feed-back from the actual situation on the consequences of these decisions.

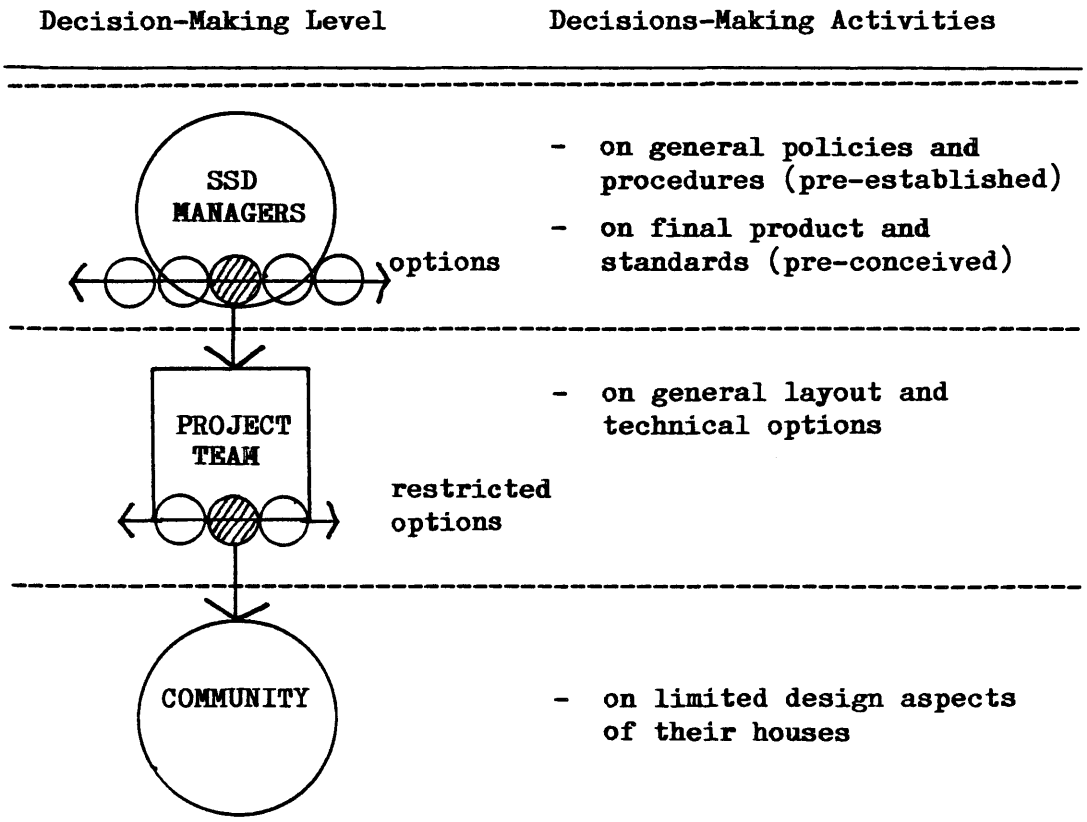


Fig. 2.31: WANATHAMULLA BLOCK D2 FIRST REGULARIZATION PLAN APPROACH: VERTICAL/UNIDIRECTIONAL COMMUNICATION-DM STRUCTURE

On the other hand, the results of decision-making at the project team level which were transferred to top management was basically of an informative and quantitative nature (progress reports, notes, or requests). The structure did not conceive of getting senior management involved in their decision-making process. Therefore, it lacked the potential of affecting decision-making in terms of policies and procedures, (e.g., the problem of delayed ex-gratia payments.) The Project Team also imposed their decisions directly to the community, without allowing for any relevant community participation. The community was reduced to the role of reacting to predetermined options.

The resulting communication/decision-making structure was a vertical/unidirectional one, which carried with it some negative consequences which persist at the project level. Among the more negative consequences are:

- communication between the actors is limited to the imposition of decisions taken at the top on the low levels. The possibilities of obtaining feedback on consequences of decision-making is therefore limited, and potential learning capacity is diminished.

- decisions taken at the top, in this case, restrict to a major extent the area of activities of the actors below it, resulting in a rigid structure and limiting the development of appropriate options and strategies.

- the degree to which a decision-making area is delimited, is inversely related to the distance of the decision-makers from the actual low income settlement situation. Senior management policy and procedural decisions are based on more remote assessment of information on the actual low income settlement situation. On the contrary community decision-making is based on first hand knowledge. Moreover, its potential for using this information for making decisions is highly restricted by senior management and project team decision-making. Consequently such a structure underutilises information and often misreads the decision-making capacity of some actors.

The above observations lead to some paradoxes: **The better the access to or possession of information by the actors, the lesser the access to decision-making. The less the decision-maker is directly affected by its decisions the more decision-making power he/she has.**

Second Land Regularization Approach: A Coupled 2nd Level/Vertical Unidirectional Structure

The formulation process which resulted in the Second Land Regularization Plan showed some degree of learning capacity on the part of the Project Team. This is illustrated by the fact that they considered the first approach was insensitive to the low income settlement situation. It also illustrates the strong will of the professional to plan everything, and the powerful assumption that in order to accomplish this in a more efficient way, more accurate information is needed. This has been confirmed by the need felt by the project team to improve the physical and social surveys at the beginning of the process.

The decision to move some project team members to a field office in an attempt to improve their contact with the community and carry out more surveys, was a good step towards improving the information/decision-making relation. In this case many of the decisions at Project Team level were taken by the same people who were involved in acquiring information. Thus, a coupled 2nd level information/decision-making structure was established. (see Fig. 2.32)

Information needs grew out of ad-hoc responses to the current situation, and were not based in any predetermined criteria. Here, decision-makers, after familiarizing themselves with how the low income settlement was operating, decided to focus on some particular phenomena and acquire information about them.

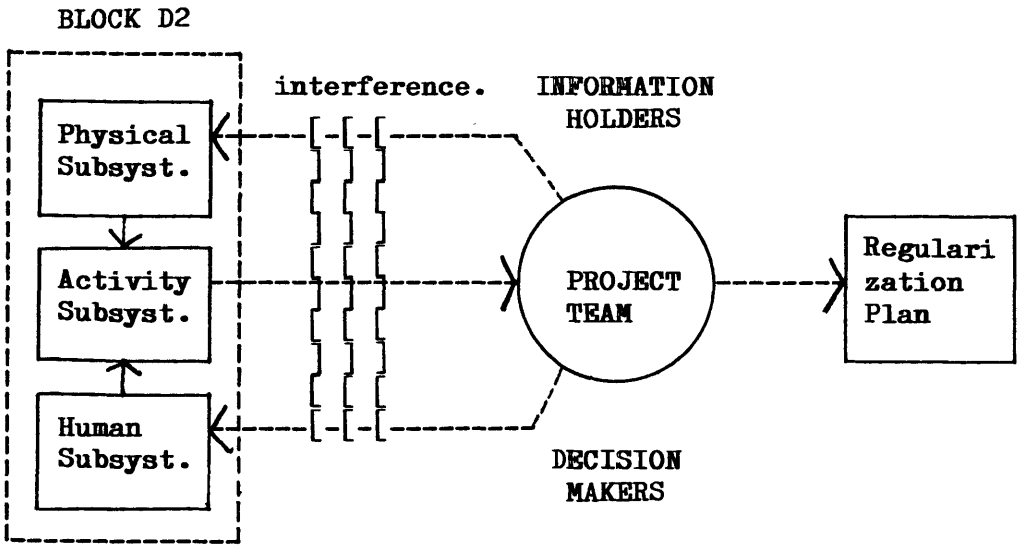


Fig. 2.32: WANATHAMULLA BLOCK D2 SECOND REGULARIZATION PLAN APPROACH: COUPLED INFORMATION/DECISION-MAKING 2ND LEVEL

Nevertheless the communication/decision-making structure did not change to any relevant extent. The senior management of the Slum & Shanty Division had already taken major decisions regarding intervention policy and procedures to be followed, and no further participation of the Project Team was considered necessary. (see Fig. 2.33)

The Project Team activities were still restricted by policies and procedures established at the top managerial level. Their decision-making was again limited to deciding on plan layout and technical options, as well as the definition of some particular implementation procedures (like site blocking out phases and relocation procedures).

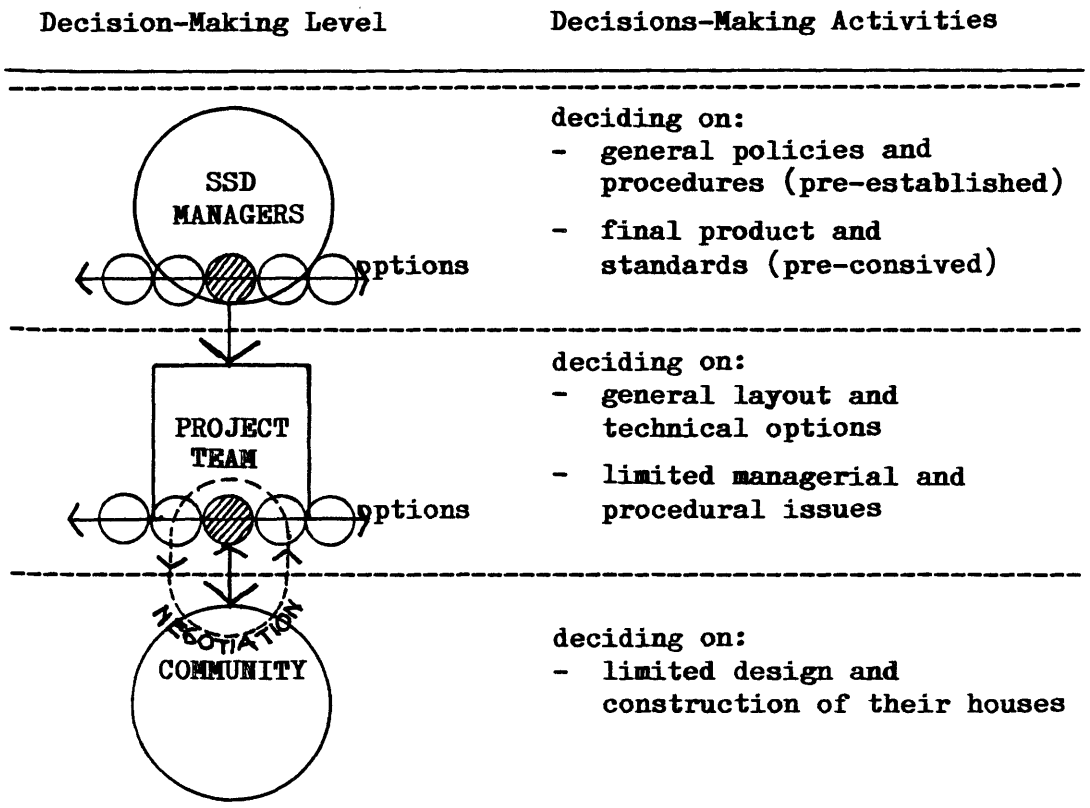


Fig. 2.33: WANATHAMULLA BLOCK D2 SECOND REGULARIZATION PLAN APPROACH: VERTICAL/UNIDIRECTIONAL COMMUNICATION-DM STRUCTURE

Even though decisions taken at the project team level were supposedly more sensitive to the existing situation in this approach, they still belonged to the unique domain of the Slum & Shanty Division senior management or project team members. The community was presented with a definitive plan, from where negotiations with the affected households began. Negotiations were more of a one option kind, where households bargaining power was at a minimun. As households cases illustrate, negotiations did not affect to any major extent the Regularization Plan. Households were the ones making the compromises.

The resulting communication/decision-making process was very similar to the one presented in the first approach (vertical unidirectional), but with an improved information retrival/decision-making structure which enabled the development of more options between which the project team could choose. To be fair, it can be said that a bidirectional relation was established between the project team and the community, through negotiation, but the community was never adequately informed on available options and their consequences.

The consequences of such a communication/decision-making structure were similar to the ones referred to in the first approach, differing only in some degree due to the positive aspects involved by making information-holders act also as decision-makers, (i.e., a coupled 2nd level decision-making structure), and by establishing a procedure for limited negotiation on a house to house basis.

Wanathamulla Block D3, August 1985

WANATHAMULLA BLOCK D3 PROJECT FORMULATION & IMPLEMENTATION: AN AD-HOC ZONE BY ZONE PLANNING APPROACH

LAND REGULARIZATION & PLOT ALLOCATION PROCESS

Evolution of a zone-by-zone planning approach

At the beginning of June before laying out had yet taken place in Block D2, some project team members came across many houses under construction in Block D3 and E. Unauthorized construction was taking place at something like 5-10% of the total settlement stock, annually, and it was becoming clear that the project at such phase and approach could not cope with the daily growth of such a settlement.

It became obvious then, that certain flexibility was required from the project staff in order not to inhibit initiatives on part of the community. Thus a different information/decision making approach needed to be taken. This is why, the project team decided to allocate many plots, making sure that the households were registered and that their proposals would fit into a future plan. It was agreed that notification would be given word of mouth in areas where it was possible for construction to take place, but households were advised that they should first consult with the site staff to ensure proposals suited an overall plan for the area.

Eventually this method of informal plot allocation became accepted by the Project Team as a whole, but it was agreed that any proposal regarding one household should be put at least to the neighbouring householders. So it was that the idea of zone by zone planning came to be, resulting in an immediate response to the community needs.

Development of the Regularization Plan

Small meetings were held in August with several groups of households at the site office. Sketches of small areas were presented and discussed, allowing for some negotiation to take place between the residents and the project team members. The small zone meetings were

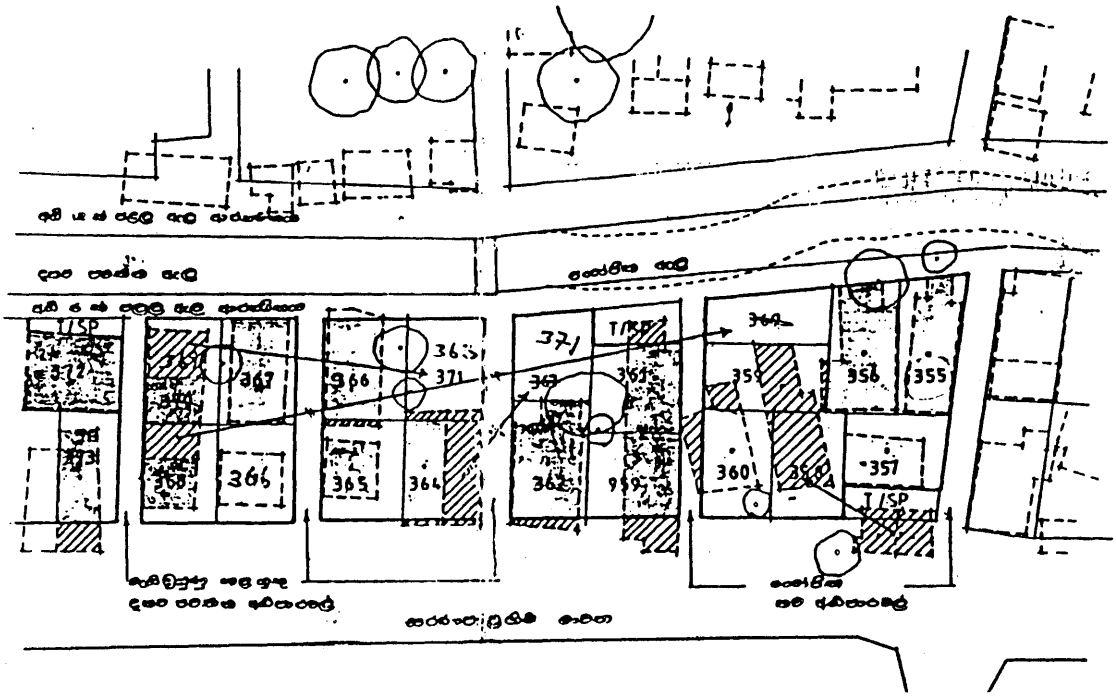


Fig. 2.34: Small Zone Plan, showing proposal for part of Block D3, Wanathamulla. Note structure 362.

easier to arrange, and their results enabled some residents to start moving or building without having to wait for a lengthy overall regularization process to take place. (see Fig. 2.34)

Nevertheless, some problems regarding unauthorized constructions and boundary disputes arised. One case mentioned in a project team report can further illustrate the complexity inherent to this approach.

Household 362:

"In August, an unauthorised construction was discovered in D3. The Householder occupying 362 had begun work apparently on Friday evening, and on Monday morning he had reached Damp Proof Coarse level (approx. ground floor level).

The original house, occupied by a single family of three members, was typically constructed of timber boarding and G.I. sheeting, approx 1.75 perches in area, and situated by the main road. There was an area of approximately the same size between the back of the house and the canal which was used by the household.

The new house under construction now occupied not only the area of the original house but the open space at the rear as well. Although the back fourteen feet of the house was a narrower kitchen extension, taking into account roof projections, the new house occupied a plot of some 3.5 perches. in effect two plots.

We marked the area out into two plots and the householder was asked to stop construction of the back portion. He argued that larger plots were being allocated in other parts of the area, and that he felt he was entitled to all the land he had been occupying up to then. In fact he had made a request at the end of July to construct a new house but poor records and the inability to process all these requests promptly led to confusion.

He ignored our request and by the end of the week the main part of the house was virtually up to roof level. The case was discussed repeatedly at the project team meetings. With the planning taking place in D2, all eyes were on how we dealt with unauthorised construction.

The case was discussed with senior staff at project team meetings, where it was decided that the UDA should send some builders to demolish the new house if the householder failed to do so. But how? There was no clear procedure regarding enforced demolition, and it certainly had not been done in the area before. The project officer was unable to deal with this case satisfactorily, as he felt he had no clear procedure to follow.

The case was further complicated by the interference of a local politician who had been contacted for assistance by the householder. Eventually the politician was persuaded to cooperate and drafted a letter appealing to the community to cooperate with us. This was printed in a flier together with a general letter from the Prime Minister. The flier explained what we were trying to do and appealed for cooperation in not constructing illegaly, but to go along with our system of planning.

> The whole situation came to an absurd anti-climax when, towards the end of October, while on a site visit, the Deputy Director asked for the plot to be indicated, and taking a piece of charcoal from the ground, marked a line vertically down one of the flank walls. He instructed that the portion of the house beyond this line towards the canal should be demolished immediately, otherwise the UDA would carry this out.
>
> The householder's only concession to our request was to halt work on the kitchen extention. The rest of the house was completed and still stands today, a year later. The front portion is now a shop run by the householder." (see footnote (9))

This case illustrates the degree of complexity that characterized a land regularization process, were policy decisions and procedures are holding back the evolution of appropriate options to solve problems.

The community, before Slum & Shanty Division intervention in the area, had worked out their own territorial codes for over 40 years, establishing tacit agreements on who had the rights over which piece of land. When Slum & Shanty Division stepped in the area, it brought new codes and rules which upset the existing system, benefitting some households and damaging others.

The issue of equity was the key objective behind the Slum & Shanty Division land regularization policies. The policy was to provide each household with a minimum of 1.5 perches --regardless of what they were occupying before--, and land was to be leased free of charge for a 40 years period. In the long run households will own this land. Still one cannot help asking if this equitable solution will impose the same rigid rule on very diverse households.

The land regularization system that was established was ill -equipped to deal with the substantial differences between households' size and composition, and treated very different households the same way.

The problem with such land regularization policies and procedures is that too much is decided for the households from above and in a very rigid manner.

A more responsive policy and procedure would have been one that sets up the "rules of the game" and allows people to generate their own options and choose from in them. eg. Slum & Shanty Division could have established a policy where: 1) a minimum piece of land would be leased at a nominal rent, and any increase over this area would be charged at

market rate, 2) land to be subdivided would be the result of a street and infrastructure layout negotiated between the Slum & Shanty Division Project Team and the community 3) households would themselves set up the boundaries of their plots in agreement with their neighbours and in full knowledge of the "rules of the game".

A policy like the above might: a) better internalise the differences between households, b) assure a minimun plot from an equity point of view, c) avoid upsetting the existing territorial distribution to a large extent, d) be more efficent by diminishing the amount of energy devoted by the project team members in negotiations, and letting it take place within the community, and e) enable new land tenure systems to evolve out of community agreements, i.e., communal tenure.

What this implies is a change in approach rather than a change in procedure. Government agencies should be willing and able to decentralize and devolute decision-making, in well equipped, well informed communities without creating conflict.

Presentation of Final Regularization Plan to Community

Eventually towards the end of January, 1985, a full community meeting for D3 was arranged, and an overall agreement was reached on the Regularization Plan.

Householders were issued with small plans showing their plots and the surrounding area, indicating the need of relocation or partial demolition.

The General Plan was very similar in overall form to that of D2, having a grid-iron pattern. The main difference with D2 was that plots were approximately the same size (1.75 perches), resulting in a proportionately greater number of demolitions. (see Fig. 2.35 and 2.36)

The previous experience with ex-gratia payments in D2 made the Project Team consider partial demolitions as complete in order to avoid procedural delays if partial demolitions turned to be complete demolitions. It was hoped that they could assure that on-time ex-gratia payments would create enough incentive for households to demolish or relocate.

Fig. 2.35: Survey of Block D3, Wanathamulla. Note that fences and define boundaries have been indicated --the assuimed ownership of this land gives another perspective to when considering houses alone.

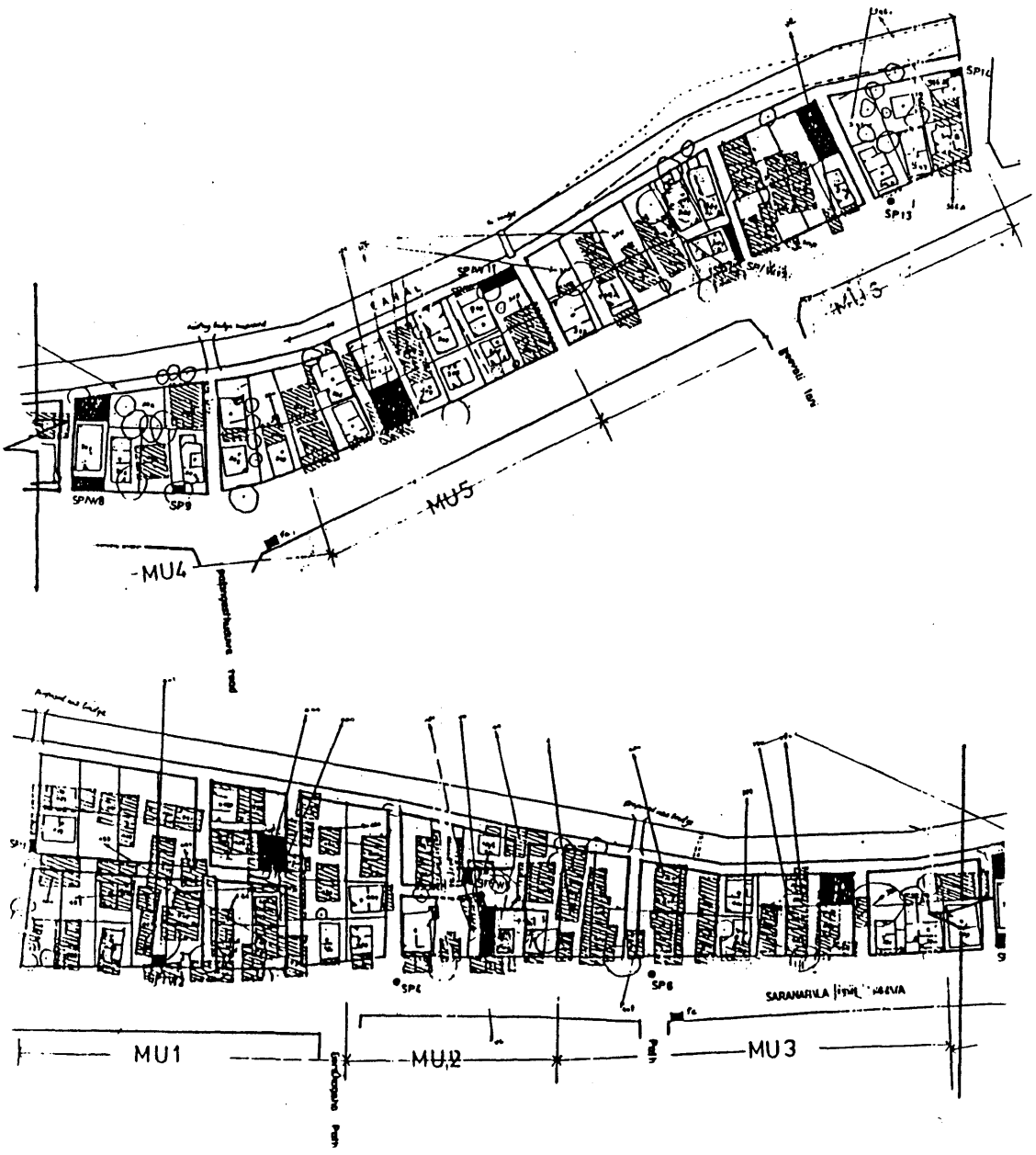


Fig. 2.36: First Regularization Plan for Block D3, Wanathamulla, Jan 1985

The criteria used in the plan was to preserve houses in good condition, using them to form the nucleus around which the rest of the plan could evolve. Existing houses whith shops along the road were kept in the same position or located somewhere else along the road.

The Slum & Shanty Division Merges with the Urban Housing Division of the NHDA: A Change in Approach

By the end of February a final plan was reached after some further negotiation, and the project team started to work on technical drawings for the amenities.

At the beginning of March, the Slum & Shanty Division merged with the Urban Housing Division of the NHDA, transferring its staff and equipment to the NHDA headquarters.

The move brought about a radical change in approach. After a brief examination of the drawings, documents and historical data relating to the D2 regularization process, the Head of the Urban Housing Division directed the present courses of action regarding D3 to be halted, the Regularization Plan disgarded and a completely new approach adopted.

The Regularization Plan had reached a point where it was waiting for the surveyor to implement the site layout. But the new approach considered that the best way to go was to place marker stones between houses in such a way as to minimize demolition and to make it possible to carry out brief negotiations with the householders on the spot. The approach was called "action planning".

The change brought much confusion to the project team, who felt that this new approach was not suitable for such a dense area, and wanted to stick to the plan already approved by the community.

A meeting with the community was held in April to explain the new regularization and blocking out process. There, it was explained that there was not to be a Regularization Plan beforehand, but that the project officer would simply come to the site with the surveyor and after some negotiations with the householders it would place the marker stones. Later, a plan indicating plot boundaries would be prepared.

On Site Planning and Bloking Out

Work began in early June at the southern end of the block next to the area damaged by the fire. The project officer and the surveyor had Block D1 clearly marked, making it easier to lay the first marker stones.

The project team's architect described the process during the first days as follows:

> "On the first day, the project officer asked the householders of the first four houses to try and divide the ten perches of land that their houses stood in. He made it clear that each should be allocated approximately 1.75 perches and there should be one or two vacant plots remaining. Quarreling broke out as the four households concerned wanted to divide the area amongst themselves, leaving no vacant plots. One, for instance, claimed that he had his garden space for a long time and wanted to keep it. This would have meant each householder claiming 2.5 perches each. The Project Officer could not allow this, so he demarcated five plots of nearly 2 perches each himself. They accepted his decision and the surveyor placed the marker stones.
>
> On the second day, approximately ten or eleven plots were demarcated including some three or four vacant ones. This time the Project Officer tried to get the community leaders to negotiate with the householders over dividing up the land. Two or three of the leaders came but did not want to get involved. There were two unregistered houses and also a house with a firewood business attached that occupied approximately 5 perches, which would mean having to reduce his plot. The Project Officer continued working around existing structures. He gradually improvised a policy regarding unauthorised structures. When confronted with an unregistered house he placed the stones but refused to give permission for that householder to reconstruct his house. Conversely, registered householders were told that they could start work immediately." (see footnote (9))

As work proceeded, some householders objected to the layout and did not agree to demolish their structures when they were asked to, advocating a return to the previous Regularization Plan. The objections were followed by letters to the Urban Housing Division Manager and local politicians. However they were eventually persuaded that to try to revert back to the original plans now would cause long delays in handing over their plots. Work proceded based on the new approach.

Blocking out was completed in about a month, with the overall result that no one had to be relocated outside the Block, compared to over 12 considered in the original plan. Five or six houses were required to be completely demolished and relocated in the same Block, while a large number were partially demolish. (see Fig. 2.37)

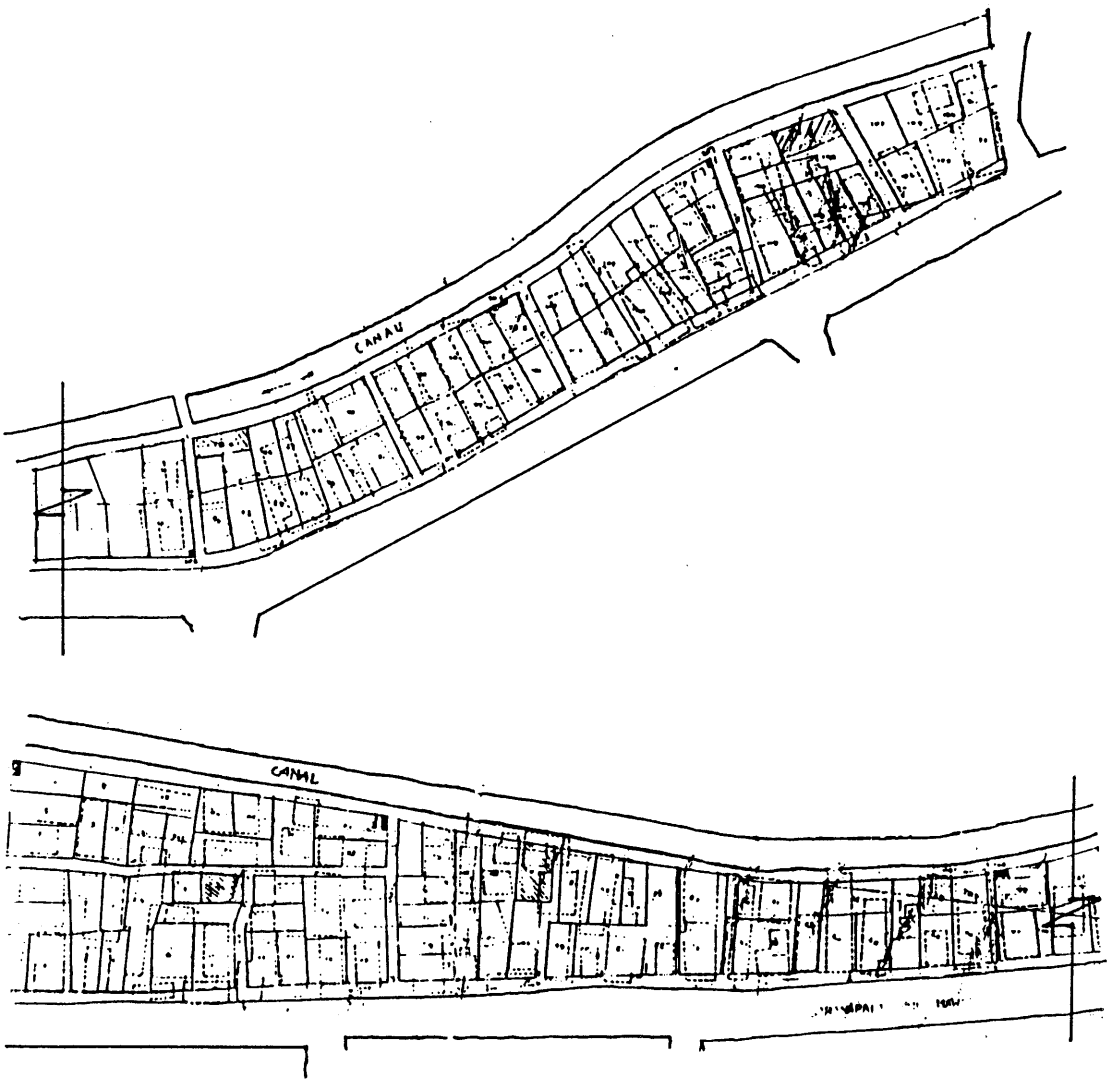


Fig. 2.37: Plan of Block D3 showing blocked out plots as result of the "action planning" approach.

ANALYSIS OF LAND REGULARIZATION & PLOT ALLOCATION PROCESS IN BLOCK D3

Again, two decision-making approaches may be recognized in this case. This piece will present the same type of analysis followed earlier for Block D2. Therefore it will focus on information, decision-making and communication aspects within the approaches.

First Land Regularization & Plot Allocation Approach (Zone by Zone Planning): Coupled 2nd Level/Vertical Biderectional Structure

The first approach taken in Block D3 was very similar to the second approach utilized in Block D2, with the difference that the former was more flexible and thus, enabled incremental formulation and implementation to take place.

Basically all project decisions were made by the project team members after acquiring enough information on a particular zone of the block. Decisions were presented to the relevant householders for negotiation. The information/decision-making structure established was again of a coupled 2nd level kind, where remote information-holders and decision-makers acted as one body. (see section 1 part 1.3.)

The communication/decision-making structure was also very similar to the one established in the second approach for Block D2 (see Fig. 18, page 24). The differences were to do with how the project team related to the community in negotiating the plan. In this case, The project team, after resolving the street layout and plot allocation of a small zone of the block, negotiated with the relevant households in small meetings, making it possible to develop the plan incrementally, zone by zone. (see Fig. 2.38)

Control over decision-making of the different actors did not experiment with any relevant variation from Block D2's second approach. Slum & Shanty Division senior management made major decisions on shanty upgrading policies (land tenure,finance, standards, etc) and general procedures, while the Project Team mainly resolved technical issues and low key managerial and procedural issues at the project formulation and implementation stages.

Again, options developed by the project team were not presented to the community for discussion. Instead, but a final product with very limited possibilities for variations was put forward.

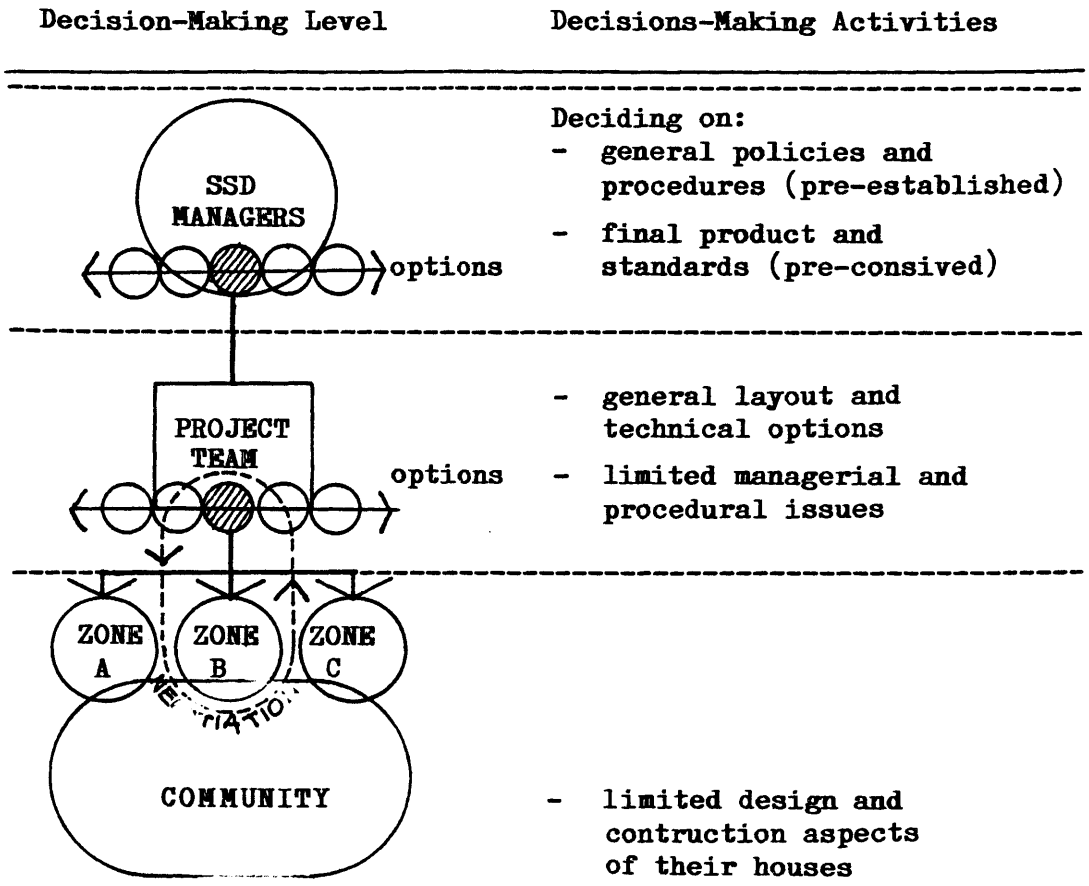


Fig. 2.38: WANATHAMULLA BLOCK D3 FIRST REGULARIZATION PLAN APPROACH: VERTICAL,PARTIAL BIDIRECTIONAL COMMUNICATION/DECISION-MAKING STRUCTURE

Second Land Regularization & Plot Allocation Approach (Action Planning): Coupled 1st Level/Vertical Unidirectional Structure.

This second approach, as has been pointed out earlier, came to be implemented after Slum & Shanty Division merged with Urban Housing Division of the NHDA. An analysis of this new approach is particularly difficult due to the many external factors that could have affected its performance. Among them: 1) the objections of the Project Team to the new approach, and consequently the lack of commitment to the new idea; 2) the sudden change in the "rules of the game" perceived by the community, thus, diminishing its confidence and support for the project; and 3) the inexperience of the Project Team with the new approach, which did not consider planning in the traditional way.

The new approach did not start by acquiring information and then formulating a plan. The approach was based on the concept of deciding on the spot, using the information that the households possessed , and augmented by direct site observation. The project team and the residents were supposed to decide on the site, within the real physical environment, where to place the marker stones to delimit the plots, as well as to peg the streets and footpaths.

Consequently, the information/decision-making structure that the new approach was aiming at, was of a coupled 1st level kind, where information holders and decison-makers are the same individuals --in this case a combination of project team members and householders, being both information holders and decision-makers (see Fig. 2.39). But the circumstances did not allow this structure to operate to its full potential. Eventually it got to the point where the Project Officer was making practically all the decisions. Thus, the process evolved into a coupled 2nd level structure. (see Fig. 2.40)

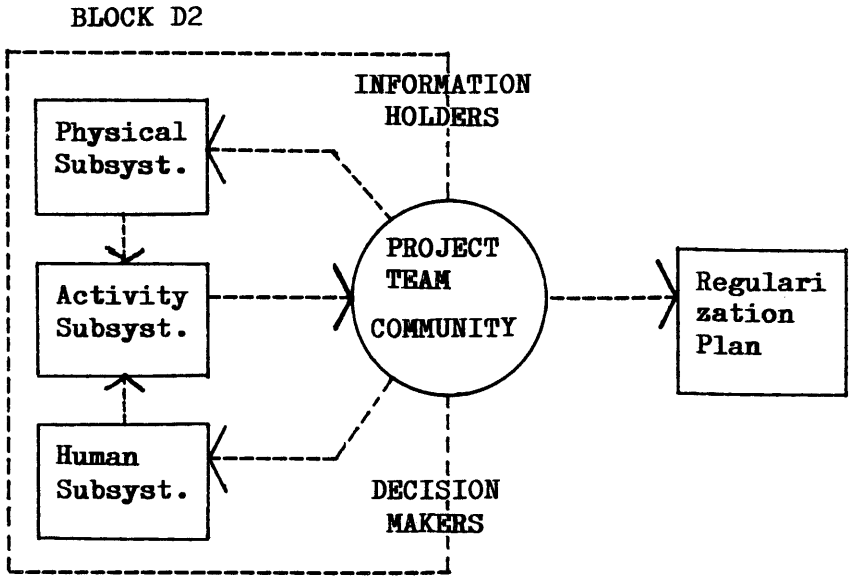


Fig. 2.39: WANATHAMULLA BLOCK D3 SECOND REGULARIZATION PLAN APPROACH: COUPLED INFORMATION/DECISION-MAKING 1ST LEVEL

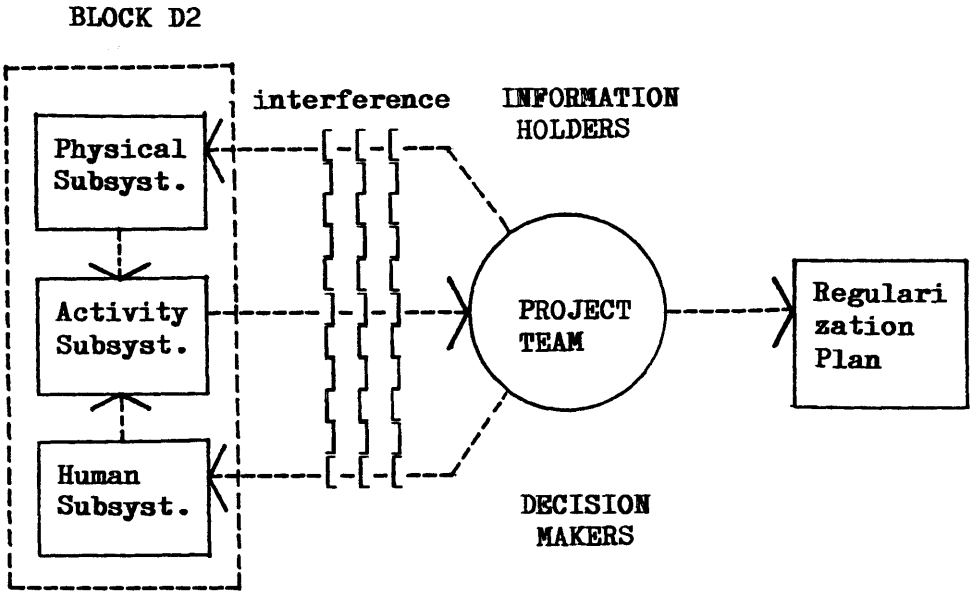


Fig. 2.40: WANATHAMULLA BLOCK D3 SECOND REGULARIZATION PLAN APPROACH: COUPLED INFORMATION/DECISION-MAKING 2ND LEVEL

Many factors other than the ones mentioned earlier could explain the failure of the information/decision-making structure attempted. Among them were: 1) the lack of adequate explanation to the community on how the approach was to operate, and what the roles and the rights of residents in making decisions were; 2) the lack of briefing to the community on which options were available and what their consequences were; 3) the lack of time given to residents to study the options available in order to make their choices.

The communication/decision-making structure that this new approach was aiming to establish, included for the first time some decision making at community level (horizontal decision-making). But the resulting structure was even more vertical and unidirectional, from the top down. the UHD Head Manager imposed the new approach to the project team, and with it the procedures that should be followed. On the other hand, at the other end of the structure, when residents failed to make their decisions within the policies established, the Project Officer was the one making all the decisions. (see Fig. 2.41)

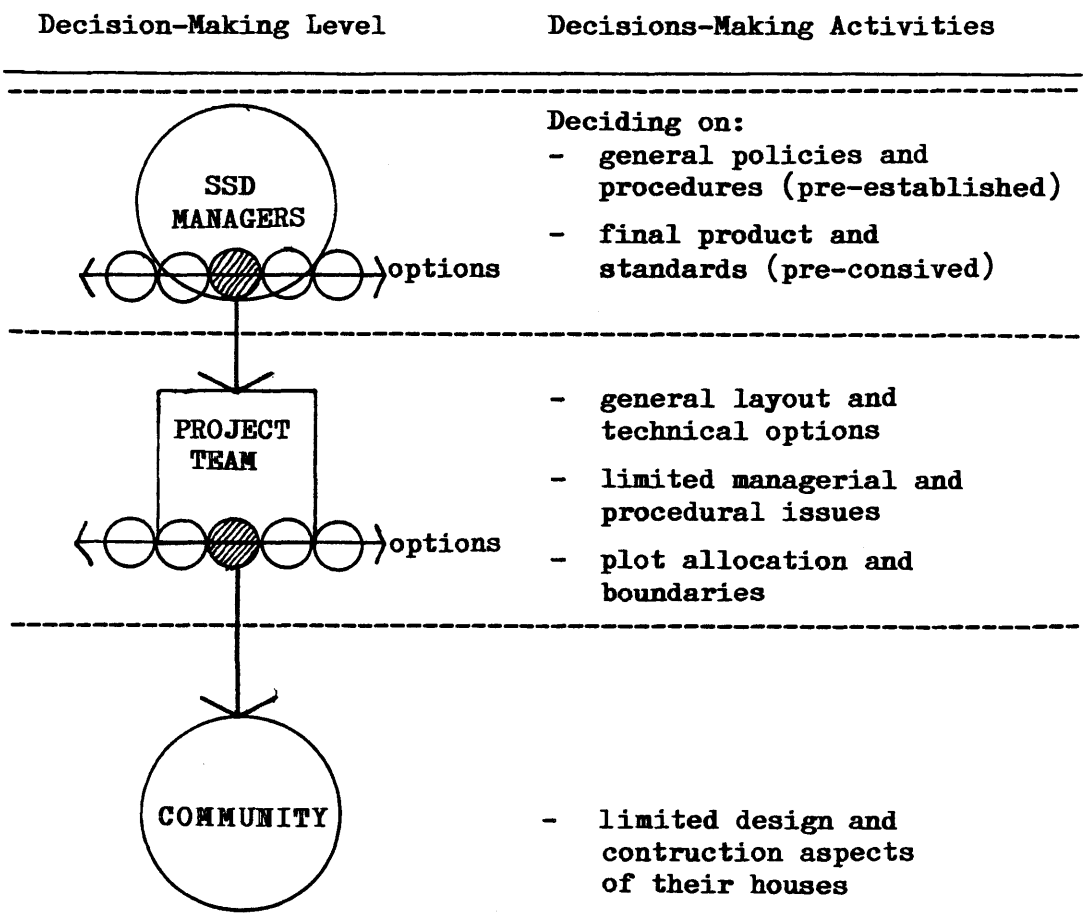


Fig. 2.40: WANATHAMULLA BLOCK D3 ACTION PLANNING REGULARIZATION PLAN APPROACH: VERTICAL, BIDIRECTIONAL COMMUNICATION/DECISION-MAKING STRUCTURE

Wanathamula Block E3, a less dense area. August 1985

WANATHAMULLA, BLOK E PROJECT FORMULATION: AN AD-HOC MULTIPLE LEVEL DECISION-MAKING APPROACH

Block E presented a substantial environmental difference from Blocks D2 and D3. While in Block D, housing is dense, with little left over space between, and no one claims more than the land for their houses plus perhaps a small garden or occasional fruit tree, in Block E housing is less dense, with large gardens defined by fencing or bushes.

In Block E, the land slopes down to the canal ensuring less drainage problems during the rainy seasons. Many households own individual wells and there is an abundance of fruit trees. This gives the impression of being in a rural area. Block E is also the oldest part of the settlement and some residents, who settled here in the 1930's, own large parcels of land.

LAND REGULARIZATION & PLOT ALLOCATION PROCESS

The formulation of the Wanathamulla Block E project presented a major variation in relation to the procedures followed in Block D. This demonstrated the Project Team's substantial capacity to learn from their previous experience in Block D.

Even though the project formulation in this case also relied on heavy data-gathering and extensive surveys, there are considerable differences in the approach that was taken while deciding on plot allocation and the general layout of the site.

At Block E it was also decided, as for the whole Wanathamulla area, that land regularization and plot allocation, together with the provision of access streets, communal sanitary units and standpipes, were the priority actions to be carried out in addressing the needs of the block's population. The way this was to be carried out differed from the previous case as to how action plans were formulated.

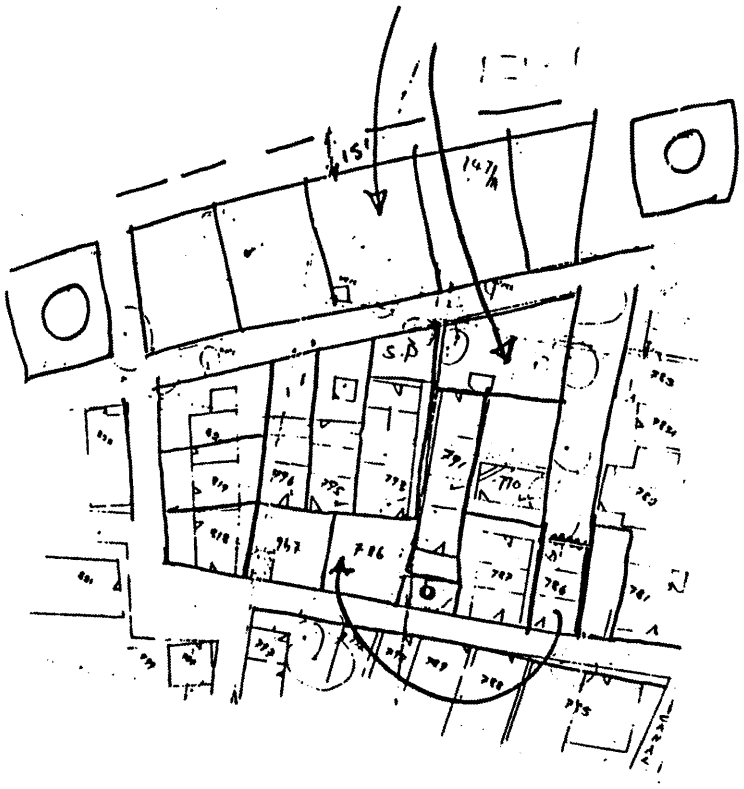


Fig. 2.42: Draft Plan, result of zone meeting in Block E1, Wanathamulla, June, 1985

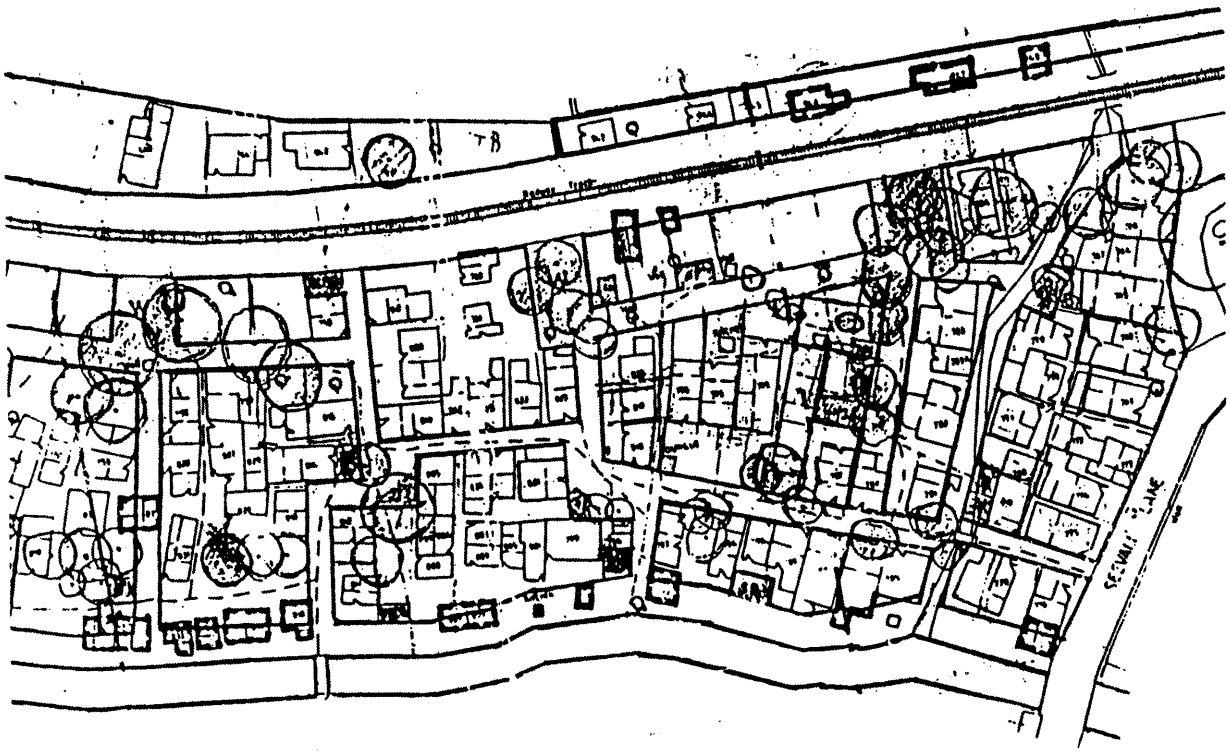


Fig.2.43: First Plan of Block E1 showing zones or clusters of houses formed by the initial provition of infrastructure. Note proposed footpaths are shown, wherever possible, as improvement of existing ones.

Improvement of Surveys and Processing of Individual Requests for Plot Allocation

The Project Team field staff was involved in upgrading the survey drawings and compiling household data sheets throughout May, 1985, for Blocks D3, E1, E2 and E3. During this process many individual households requested plot allocations in Block E so that they could begin new construction. The Project Team tried to process the applications immediately, making use of their drawings and data sheets to identify the main access paths, the conditions and type of house concerned, and the general density of the site.

Eventually a meeting was arranged for a zone of houses on E1, in response to a request for a plot allocation together with a further request for a household to move to that zone from a narrow strip of land on the west side of the railway line.

A Project Team report refers to it as follows:

> "The meeting took place in early June and involved eleven households (786-820) at the northern end of E1. With the aid of three field staff we had been compiling detailed survey plans together with household data for the whole Block E. So, from this information it was fairly easy to compose a sketch plan for Block E1 that indicated the housing zones bounded by the railway and canal reservations, together with proposed footpaths. (see Fig. 2.42)
>
> Whereverpossible, footpaths were shown as widened and we located some open spaces as service areas. Also three improved wells were shown.
>
> So, a simple draft plan was drawn up that, in effect, split the block into housing zones surrounded by a network of footpaths.
>
> The meeting took place at the site office, where a plan of the relevant zone was shown. So now we could arrange at fairly short notice, meetings between small groups of householders and quickly finalize the Regularization Plan on a zone by zone basis, in response to individual requests. Furthermore meetings could be arranged quickly at the site office and held in a relaxed way." (see footnote (9))

The approach proved to be a success. One household (786) was asked to demolish their dwelling to make way for a re-directed footpath, and was relocated in the same zone. There was even enough space available to relocate the other household from the strip of land west of the railway line. (see Fig. 2.42 and 2.43). In the end enough land was available for every one without moving anyone out.

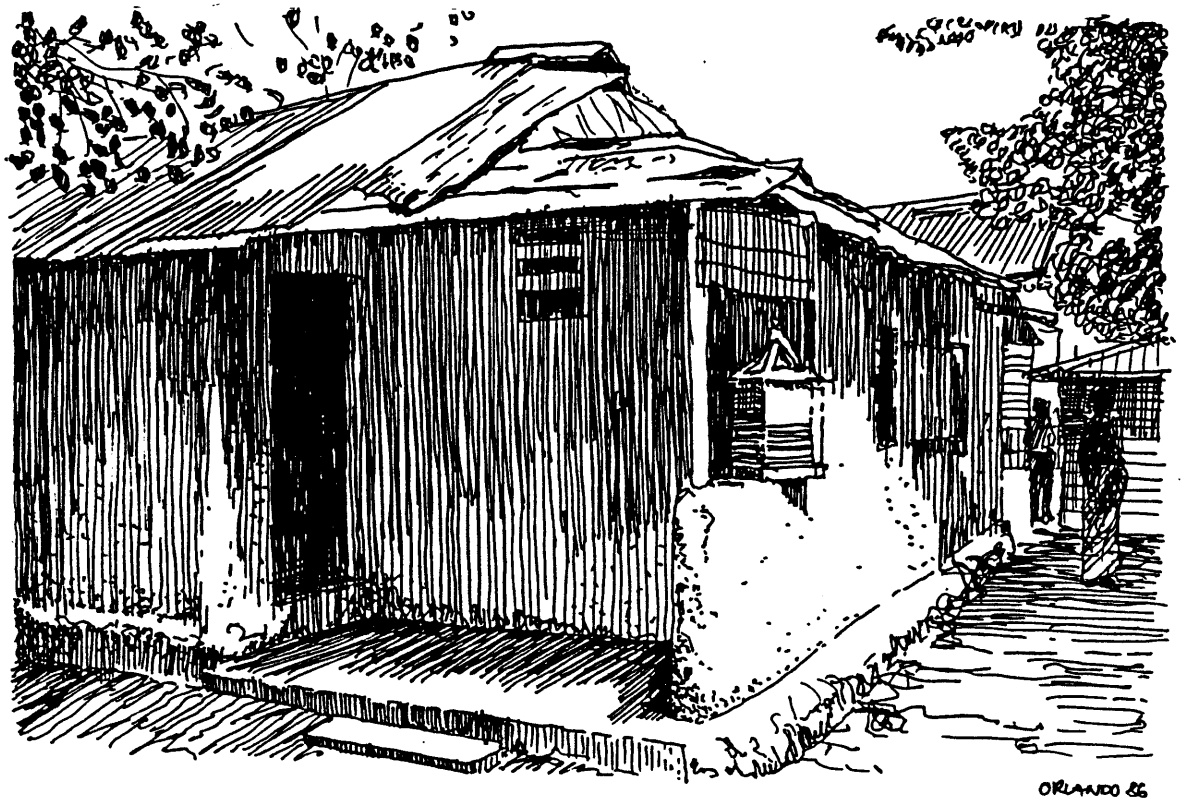


Fig. 2.44: Sketch showing tipical consolidated brick structure in Block E3, Wanathamulla, August 1985.

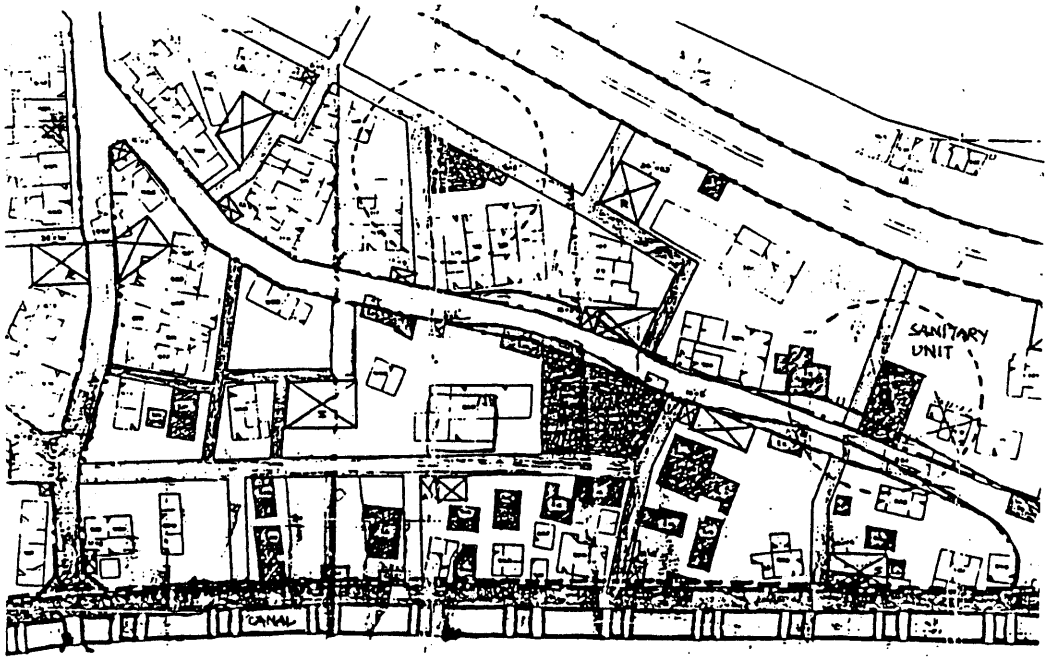


Fig. 2.45: Conceptual Plan of part of E3, showing propoused motorable roads, footpaths and service areas with housing zones remaining.

Evolution of a Conceptual Plan

Individual plot allocations in Block E went on for a year, followed by small zone plans. However, when an attempt was made to plan Block E the same way as in Block D2, it was to prove almost an impossible task.

Land regularization in Block E meant that far more people would have had to give land up as compared to Block D2, where existing plots were small and most households benefited from an increase in space. Due to this fact Block E could not be planned formally without much more cooperation and participation from the community.

The delays experienced in Block D2 in finalizing contract drawings as well as the delay in tendering procedures, made to the Project Team try to reverse the process in Block E. Therefore, it was decided to approach the regularization process in such a way that technical aspects of the infrastructure could be prepared without having to wait a finalised Regularization Plan.

This is how the idea of a "conceptual" plan for Block E evolved. A sort of "skeleton" of improved existing roads and footpaths together with new ones was developed, enclosing zones of housing and open areas. Within these zones service areas were identified, that would eventually contain toilet blocks and standpipes.

The Project Team decided that, having quickly finalized a conceptual plan, the first stage of the regularization process was to demarcate roads and foot paths, as well as create the reserves for the service areas. The second phase involved arranging meetings with perhaps a dozen households at a time. At these meetings it was thought that the question of dividing up the relevant zones amongst the households would be discussed openly, and decisions involving unequal land distribution could be taken by the relevant community and NHDA staff collectivelly. This was to be done in a relatevely informal way by simply sitting around a table sketching onto a survey plan. (see Fig. 2.45)

This process was supposed to go on continuosly while the surveyor blocked out previously negotiated areas.

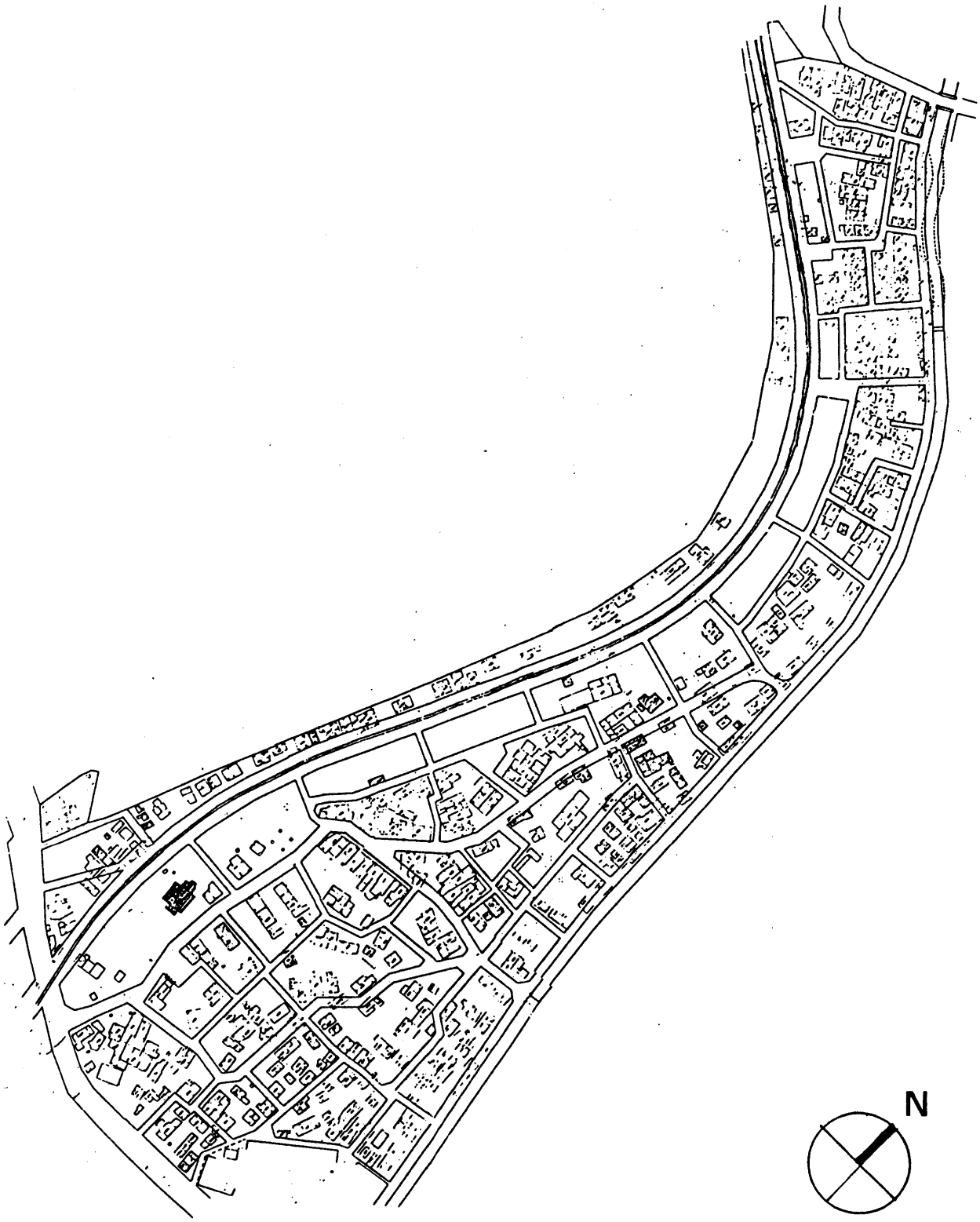


Fig. 2.46: Conceptual Plan for Block E, Wanathamulla, August 1985.

Blocking Out

The Conceptual Plan was finalized and presented to the CDC leaders of the Block at a meeting in August 85 for discussion, and plan was approved in principle by the Community Develoment Council. (see Fig. 2.46)

Blocking out began in mid September, 1985. However, all the ideas of community meetings were soon discarded, by the Urban Housing Division senior managers in favor of a system where decision were made on the spot, with the householders present. The argument put forward was that community meetings for planning streets and plot layout were time consuming and inefficient, because of difficulties in interpreting plans and deciding on options without experiencing them in real physical terms. It was assumed that the same level of participation could be attained by meeting households in the site and making decisions on the spot. The Urban Housing Division management decided to take an "action" planning approach again and arranged that a surveyor, aided by three members of NHDA staff (a Project Officer dealing with the loan scheme, a Technical Officer advising on matters of land reservations and special drainage, and a field worker), divide up the zones with the participation of the relevant households.

The Project Team architect described the format as follows:

> "The surveyor notifies the field staff that he will be coming the following day. This gives the field staff time to issue a standard letter informing the relevant households that the surveyor will be coming the following day to demarcate the plots, and as it may be necessary to place a marker stone inside the house, or remove some boarding, etc; in order to site through the house, it will be necessary for at least one member of the household to be in.
>
> The following day, the blocking team congregate at the site, usually covering fifteen to twenty plots, weather permitting, and depending on the density of the housing in that particular zone.
>
> The surveyor uses the conceptual plan as a guide only, but has to adjust footpaths slightly to accommodate reasonably shaped plots. At present, he may cover three plots an hour in the dense zones, upto five plots an hour in the more open areas." (see footnote (9))

The format has been strongly criticized by the Project Team, arguing that much too emphasis has been placed on implementation without delay, at the expense of diminishing community participation in the planning process.

ANALYSIS OF LAND REGULARIZATYION & PLOT ALLOCATION PROCESS IN BLOCK E

First Land Regularization & Plot Allocation, Conceptual Plan Approach: A Coupled 1st and 2nd Level/Vertical-Horizontal, Bidirectional Structure

The approach that evolved in Block E, represented a substantial improvement over the earlier approaches in Block D2 and D3. The improvements involved ,a more appropriate distribution of decision-making power among the participant actors, which enabled them to further profit from the available knowledge and experience.

In this approach many levels decision-making takes place simultaneously.
Different information/decision-making structures are established, and function in a complementary way. (see Fig. 2.47)

Urban Housing Division management still defined general policies and procedures of intervention, based on somewhat generalized information of a Decoupled 2nd Level kind, where detatched information-holders and decision-makers operate separately. Ultimately, decisions made at this level still delimited the range of options and decision-making of the actors below, promoting the development of a preconceived product and standards.

By far the most interesting changes occurred at the Project Team and community level. The Project Team limited its decision-making to the components it had better information and skills to deal with, such as roads, footpaths, infrastructure layout and technical aspects of amenities, and in defining project specific procedures which set up the "rules of the game" for community decision-making. The resulting information/decision-making structure is of a coupled 2nd level kind, where information-holders and decision-makers are the same individuals. The community then makes decisions regarding plot boundaries and allocation, as well as house design and construction with the assistance of the Project Team. Again, information-holders and decision-makers are one in one same, but this time decisions are based on first hand information, possesed by the residents themselves (implicit information). This, establishes, in effect, a coupled 1st level information/decision-making structure.

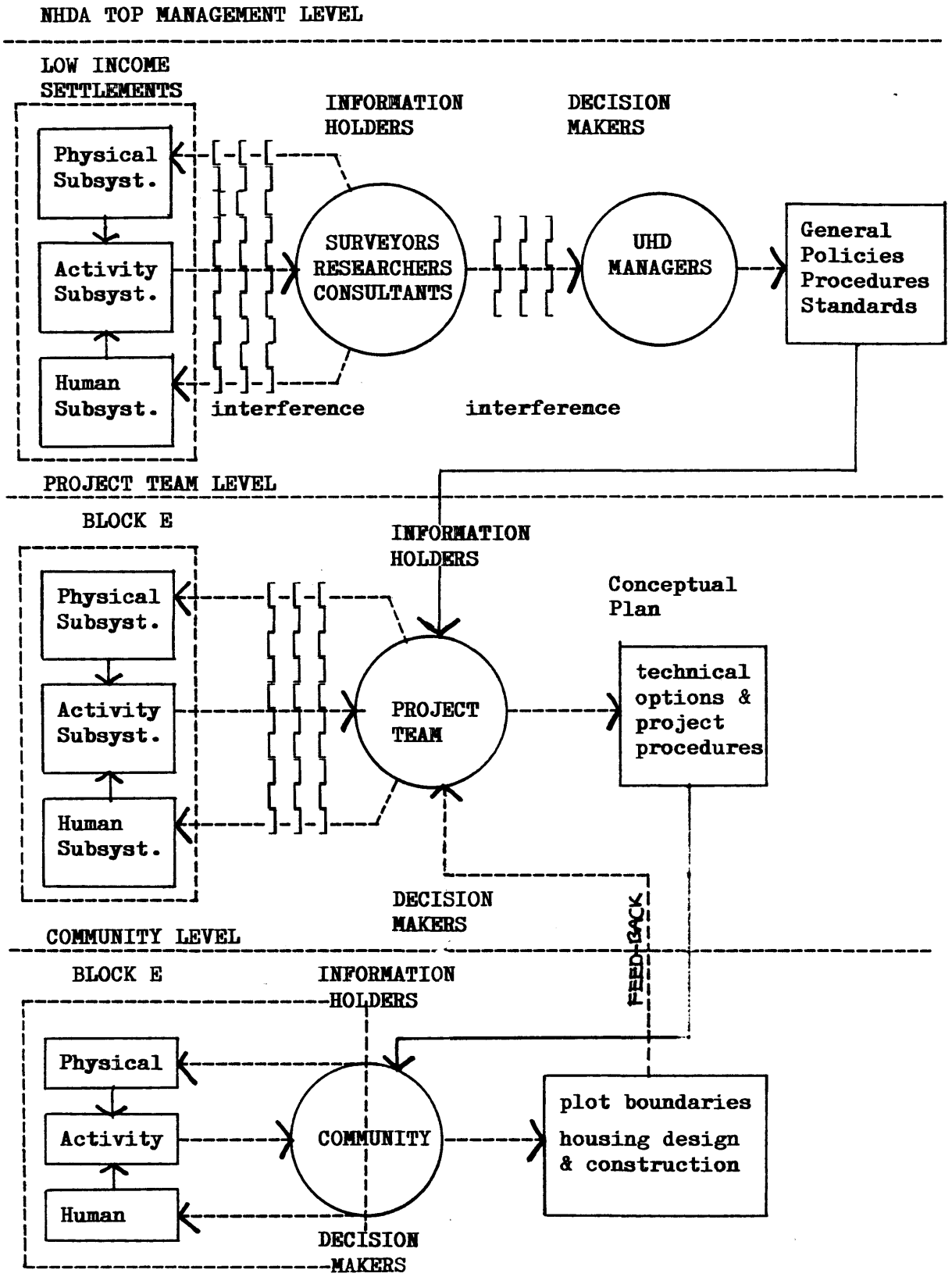


Fig. 2.47: WANATHAMULLA BLOCK E FIRST REGULARIZATION PLAN APPROACH: MULTIPLE INFORMATION/DECISION-MAKING STRUCTURES

The communication/decision-making structure that evolved out of this approach enabled more horizontal decision-making to take place. This means that decision-making territories were distributed among the different actors according to their comparative advantages in terms of access to possession of relevant information and skills necessary to generate options and choose between them. (see Fig. 2.48)

Nevertheless, communication between one project team and senior management is still very limited, and basically of a vertical top-down kind, where feedback from the bottom stops at the Project Team level.

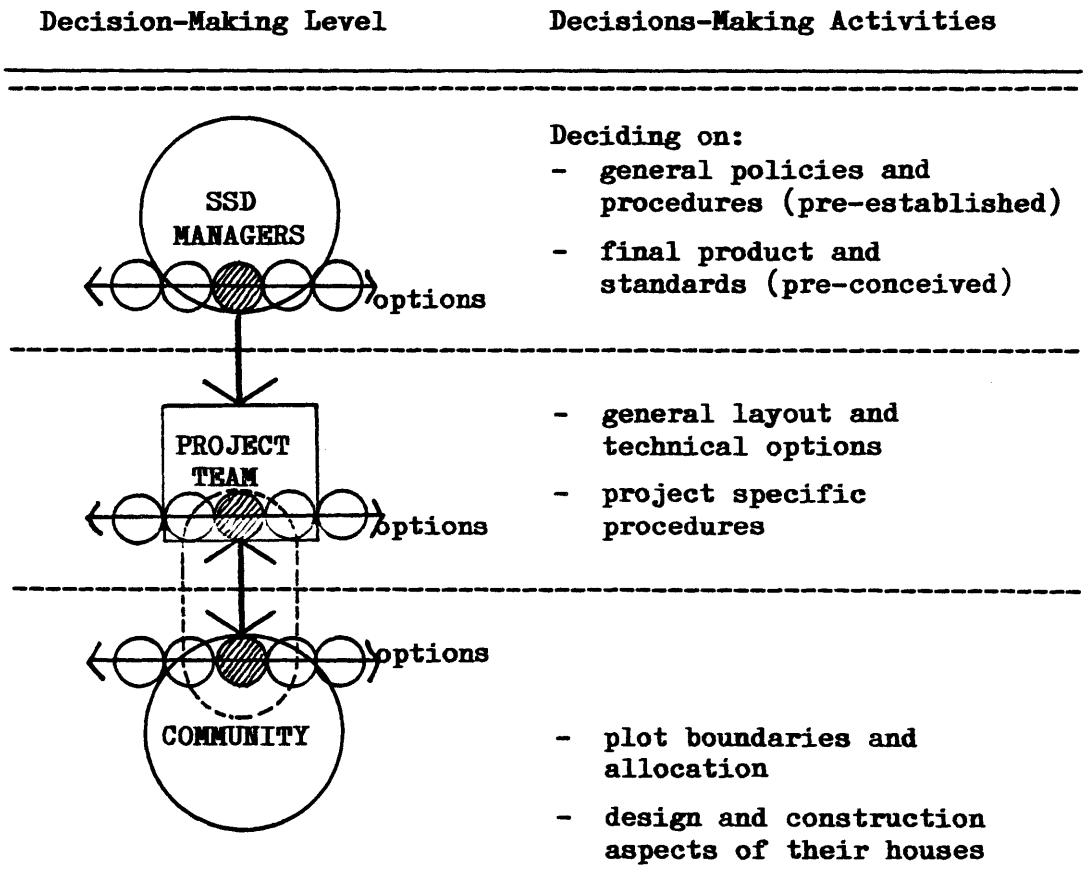


Fig. 2.48: WANATHAMULLA BLOCK E FIRST REGULARIZATION PLAN APPROACH: VERTICAL-HORIZONTAL/PARTIAL BIDIRECTIONALCOMMUNICATION/ DECISION-MAKING STRUCTURE.

Second Land Regularization & Plot Allocation Approach (Action Planning): A Coupled 1st and 2nd Level/Vertical Horizontal Bidirectional Structure

It is difficult to analyse the performance of this "action planning" approach, because it actually used the "conceptual plan" elaborated in the previous approach as a guide for blocking out the area. Thus, it relaied, to a certain extent, on the heavy data gathering and analysis used then.

The objective behind "action planning" is to avoid the time consuming stages of data gathering and project formulation of a complete plan, by simply minimizing the information collected and carrying out immediate actions. These actions are supposed to raise new issues which then will demand new actions, and so on. The concept is to first achieve immediate impact on the settlement by a deliberate action which will set the process in motion. Then, courses of action will be redirected as needed, creating an ad-hoc process which is constantly redefining itself.

The type of information/decision-making structure that this "action" planning approach aims to establish, is one where information-holders and decision-makers are the same individuals acting as one body, (coupled 1st level information/decision-making structure). They are immediate to the settlement situation, thus taking advantage of implicit information, possesed by the participant actors, in order to make decisions. (see Fig. 2.49)

The first action carried out in this case, involved the project team deciding on road & infrastructure layout, and the community on plot boundaries and allocation.

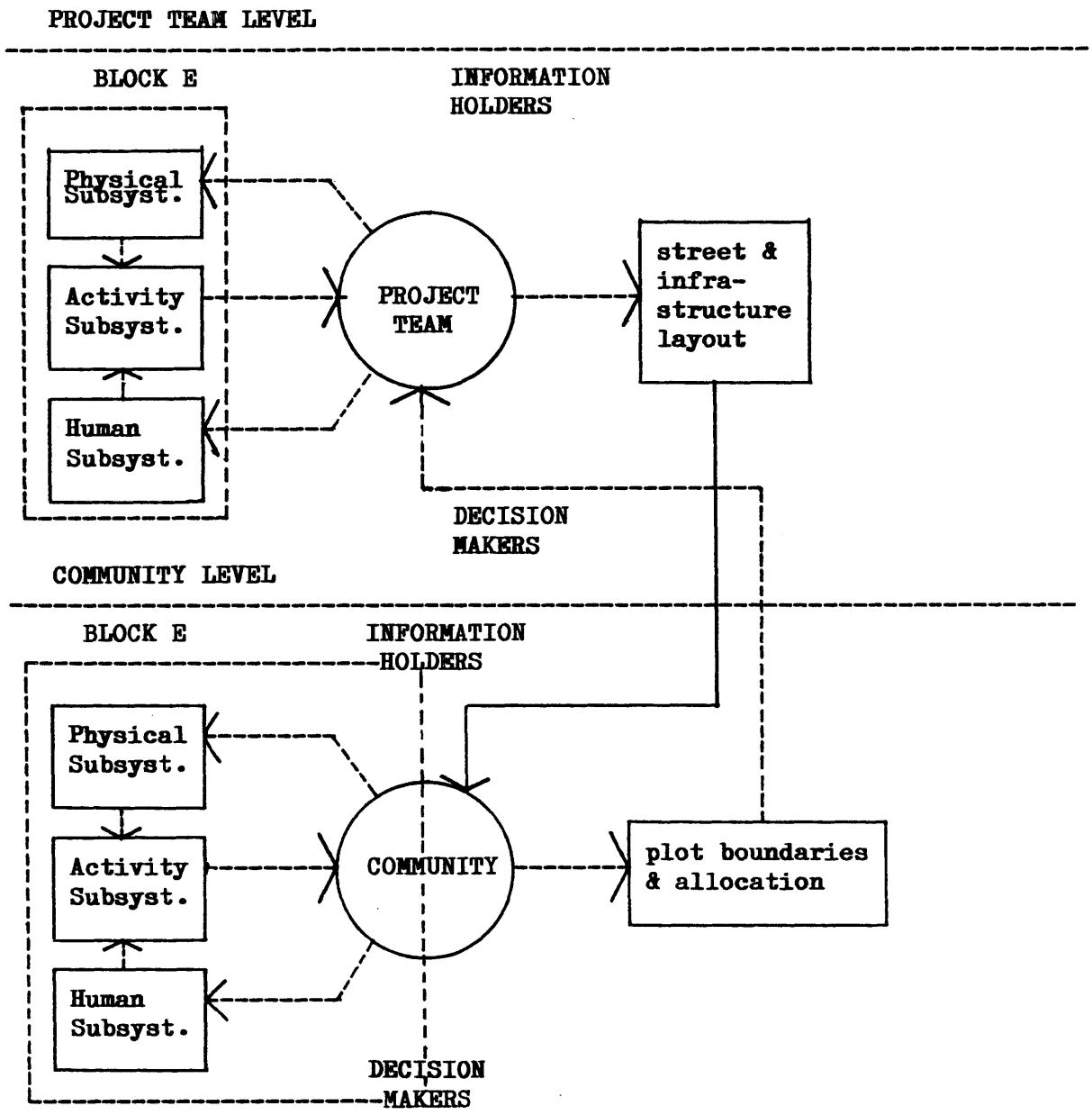


Fig. 2.49: WANATHAMULLA BLOCK E SECOND REGULARIZATION PLAN APPROACH: MULTIPLE INFORMATION/DECISION-MAKING STRUCTURE.

In terms of the communication/decision-making structure established, eventually the only difference that this approach incorporated when compared to the previous one, relates to the format used for community participation. It did not involve gathering households around a table with a plan of the zone to negotiate tentative plot allocation, but instead, gathered them on the site, so that decisions could be made on the spot. (see Fig. 2.50)

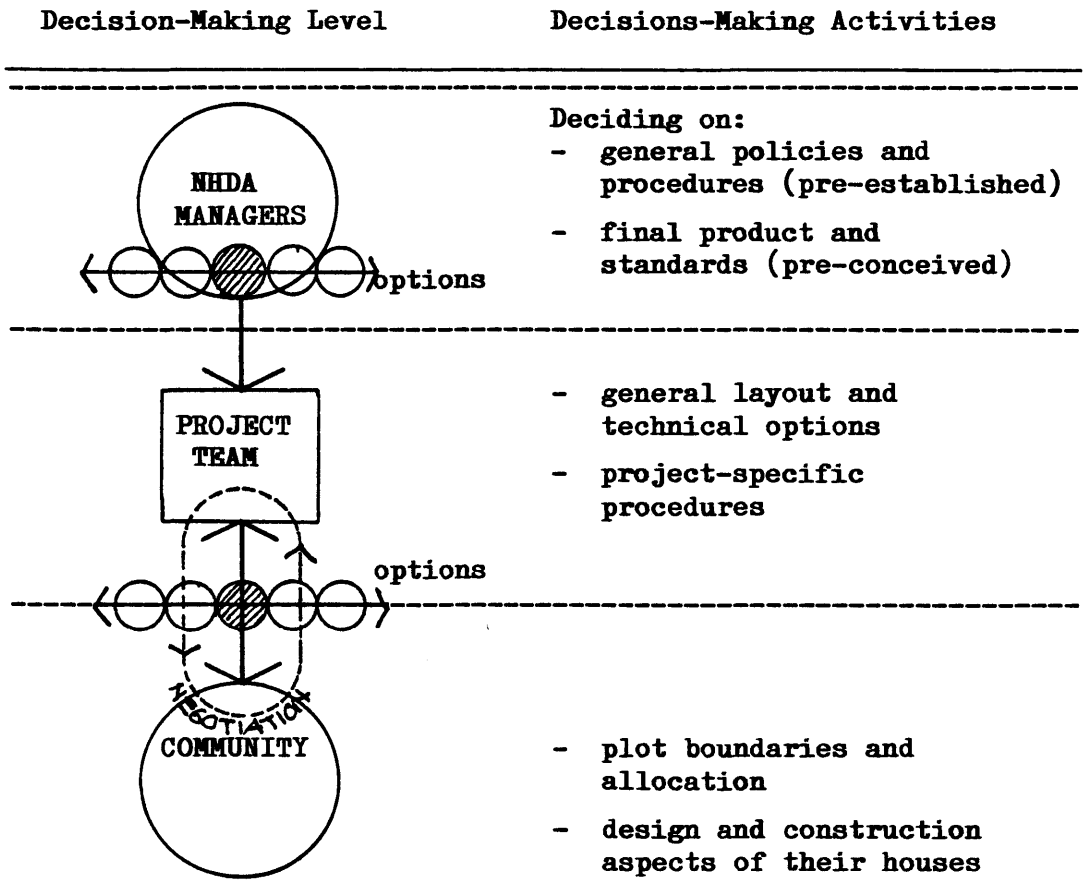


Fig. 2.50: WANATHAMULLA BLOCK E SECOND REGULARIZATION PLAN APPROACH: VERTICAL-HORIZONTAL/PARTIAL BIDIRECTIONAL COMMUNICATION-DM STRUCTURE

The two last approaches attempted in Block E, --the development of a "conceptual plan" and "action planning"-- present clear advantages if compared to the comprehensive planning that took place in Block D2 and D3. Among the advantages are:

- communication between actors is intensified to the extent that options generated at the project team level are shared and discussed with community, therefore increasing participation of local actors in the process.

- possibilities of obtaining feed-back on the consequences of decision-making are increased, the potential learning capacity within the decision-making structure is improved.

- the approaches enable more horizontal decision-making to take place, through the distribution of existing decision-making territories among the different actors, according to their possesion of the information and skills for generating options and choosing between them.

- time consuming data gathering & processing stages to obtain explicit information for planning are minimize, through the use of "implicit" information possesed by the different actors, making decisions on various levels.

In general terms, these approaches enabled a greater participation of the local actors in the decision-making process. Actors' territories were better distributed and delimited. The community's territory was enlarged to the extent of enabling people to define their own plot boundaries within an agreed general street and infrastructure layout.

Nevertheless, one can help than think that this decision-making power devolution could go much further and could bring about much better results than the ones examined. The key issue here is to persuade policy-makers and top level managers to delegate decision-making power and to open new opportunities for access to resources; then, eventually, procedures and methods will evolve and be refined through actual implementation.

SECTION 3
LESSONS & PRINCIPLES

3.0. LESSONS & PRINCIPLES IN INFORMATION & DECISION-MAKING

In this section I will draw lessons based on the case material presented previously.

3.1. LESSONS ON PROGRAM DECISION-MAKING

The examination of the case of the Colombo Housing & Community Development Council has shown how program decision-making emerges by one means or another from the city's political activity. The interests of politicians, communities, planners, and others, find their way through the network to merge in a political process which clarifies the program's purposes. Whatever social and/or economic purposes emerge from this political process, they dictate to a major extent what methods and criteria will be used to make decision related to program formulation and implementation.

It can be argued that **any attempt to improve these methods and criterias should not neglect this political process, but be based on an understanding of how it operates, so as to assure the support of the various actors involved.**

It seems relevant then to refer to the relationships which were established between the different actors participating in this political process.

In the case of the Colombo Housing & Community Development Council, it was shown how the community approaches politicians to request government intervention in their settlement and how politicians react to their constituency with the objective of increasing their political base. It has also been questioned whether this process is really addressing the real and complete low income settlement situation, or if it is just responding in a highly biased manner to selected aspects of it. The answer to this question relates to the existence of open channels of communication between lower level actors and top level decision-makers, which might effectively convey the total dimension of a given situation.

It can be argued that **the more comprehensive the decision-making process is intended to be, the greater the need for open and adequate channels of communication, to assure access from the bottom up.**

Another interesting aspect of the program decision-making process is how decision-making power is distributed among the actors.

In order to understand the actual distribution of decision-making power, one must look at where the funds are coming from and who has control over them. In the Colombo Housing & Community Development Council case, it has been shown how a single agency (NHDA), controls practically all the funds. This would make one expect that more professional decision-making criteria should prevail. However, it has also been shown that agencies --having as politicians one of their top level managers-- also operate within the existing political network and responds to its power structure. The result is a decision-making power distribution which creates incentives for actors to accommodate their points of view, thus establishing a symbiotic relationship where niether political nor professional criteria prevails, but rather a combination of the two.

It appears that in the Colombo HCDC case, decision-making power was distributed among actors in such a way that it enabled and promoted collaborative associations between actors, avoiding the unilateral imposition one actor's point of view. In other words, what resulted was the generation of a positive interdepence of actors, acknowledging that in order to achieve each actor's individual goals, they needed the support and participation of the other actors.

It would seem reasonable to argue that **the more similar the extent of decision-making power different actors posses, the higher the level of participation that can be attained within the decision-making process**

On the other hand, it was also indicated in the case analysis that the community had very limited participation in program decision-making. Its role there was basically confined to initiating the process by requesting government intervention through local politicians. Their negotiation power was basically limited to what they represented as organized voters to the politicians.

Even though, it would seem sensible to advocatethat communities organize themselves and join efforts to increase their bargaining power, it is difficult for people to organize themselve if they do not

see a clear mechanism through which their needs could be answered. In other words, what resources are there available which they could use, and which means are there to go about using them.

If the objective is to increase participation of grass-root actors in the decision-making process, then it is necessary to redistribute decision-making power. This means redistributing control and access to resources, so as to provide grass-root actors with real bargaining power. Any other attempt which insists on grass-root actors participation in decision-making without such a redistribution, is likely to be more inclined to rhetoric than to reality.

Another aspect which needs attention is the issue of information needs and use.

In the case examined, it appears that the information used to make decisions at the program level, came out of an ad-hoc process. There, information needs were established out of a basic understanding of the low income settlement situation, and of how this information was going to be used to make decisions.

Nevertheless this is not always the case in program decision-making. Information needs tend to be predeterminated by standardized surveys and ways of collecting and processing data. The resulting information is aggregated in indexes and parameters which do not present clear connections with how they are going to be used in making decisions.

The way information needs were established in the case of Colombo HCDC decision-making program represents a good example of an ad-hoc, evolving method for obtaining relevant and useful information. What the case illustrates is that there is no purely technical or objective way to decide what questions will generate more relevant information, or what method of data gathering and analysis will produce more useful information. Questions and methods should be selected by reference to the questioner's general purposes in wanting to know about the low income settlement situation.

Therefore, it can be argued that **information needs and methods of**

information acquisition should emerge from an ad-hoc process which inevitably, by nature, is going to be controversial, but at most information will be purposeful.

Finally it is important to refer to the connection between program and project decision-making. It was argued earlier in this thesis that housing policies which emphasize program delivery tend to overlook at impacts created at the project level. The traditional hierarchical relation from the program to the project, results in little if any feed-back from on-going local activities which might affect the top levels of the decision making structure. On the other hand, the traditional post-project evaluations do not generally lead to the necessary questioning and redefining of policy and procedures.

It would be then reasonable to conclude that **the stronger the emphasis of housing policies on program delivery, the higher the need for establishing communication channels from project decision-makers to program decision-makers, in order to learn from what is happening in the field, and to help in guiding policy & procedure develoment.**

3.2. LESSONS ON PROJECT DECISION-MAKING

The rich variety of decision-making approaches and of ways of using information examined in the case of Wanathamulla upgrading project, made it possible to identify some of the advantages and disadvantages of these approaches in a comparative way. This part will bring this analysis futher by attempting to draw some lessons from them.

Two issues stand out above the rest: 1) the relationships established between the different actors' decision-making territories, and 2) the way information was generated and used as a result of these decision-making territorial arrangements.

With regards to territories within the decision-making structure, it was indicated how top level management decision-making, --mainly in the planning process of the first two blocks, D2 and D3--, affected and limited to a major extent the territories of the actors below, even though its information basis was of a more removed and interfered kind. The same phenomenon, but at different scale, occured at the project team level, where again the community or individual households' decision-making territory was limited and restricted to the extent of being non existent in some cases.

The resulting territorial arrangement was an **"inclusive"** one, where the top level management territory contained the project team decision-making territory, and this latter contained the community territory. (see Fig. 3.1 and 3.3)

In terms of information needs, this inclusive decision-making territoral arrangement implied the need to make explicit by one means or another whatever information was possesed by the different actors, in order to make informed decisions and luckely avoid conflicts.

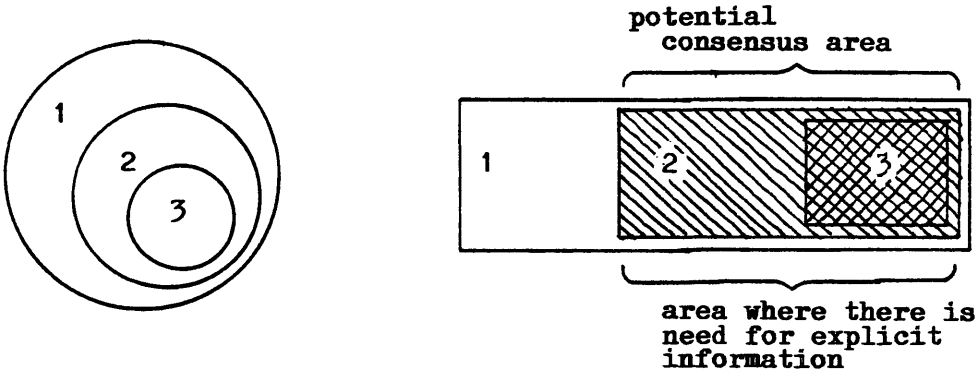


Fig. 1: INCLUSIVE DECISION-MAKING TERRITORIES

Because the decision-making territory of one actor includad the decision-making area where other actors possesed better information , then this knowledge had to be made explicit in order to be transfered within the decision-making structure. Moreover, this territorial arrangement resulted in establishing a large area within the decision-making structure where there was a need for consensus, (assuming the decision-makers were interested in participation, and therefore in arriving at consensus.) This was mainly due to the complete overlapping of decision-making territories. Consequently, the existence of such area of consensus also raised the need for more explicit information. (see Fig. 3.1 and 3.3)

The above discussion provide the basis to argue that **the more inclusive the decision-making territories arrangement is, the greater the need for explicit information to make decisions, the greater the decision-making area which is subject to actors consensus.**

On the other hand, the last two approaches examined in Block E, indicated the intention to establish a different Decision-making territories arrangement. In this case, a **"complementary"** decision-making territories arrangement.

Here, the different actors involved in the decision-making, were dealing with the same component (i.e., infrastructure & street layout, and plot boundaries & allocation), but making decisions about different aspects of it. This arrangement gave more freedom to the different actors to make their own decisions, and required a minimum consensus on the issues which were common to any two decision-making territories. (see Fig. 2 and 3)

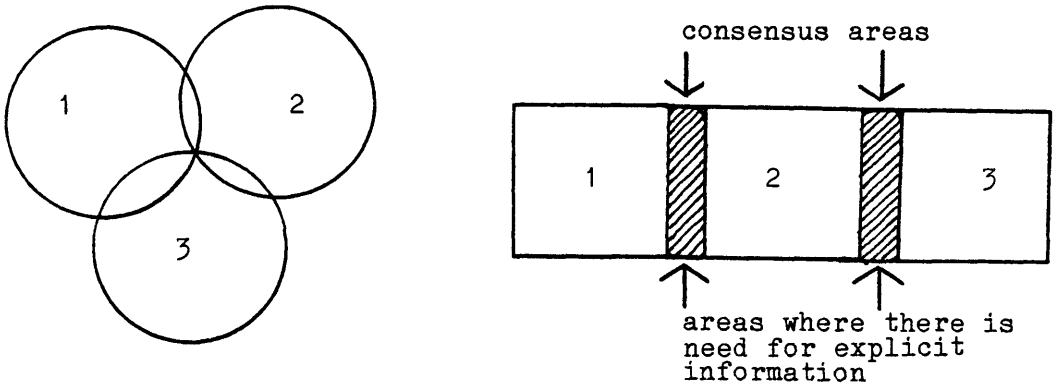


Fig. 3.2: COMPLEMENTARY DECISION-MAKING TERRITORIES

In terms of information needs, this complementary decision-making territoral arrangement, implies the need for less explicit information, because it basically relies on the implicit information possessed by the different actors so as to resolve issues. Moreover, the area where there is a need for consensus is smaller, thus the need for explicit information is diminished.

Based on the above observations it can then be argued that **a decision-making structure which enables the existence of complementary decision-making territories, will better use the implicit information possessed by the different actors, minimizing the areas where there is a need for consensus, and consequently the need for explicit information.**

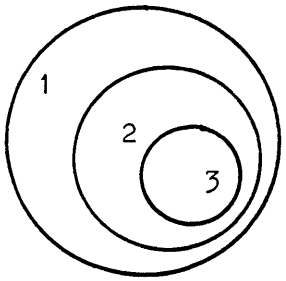
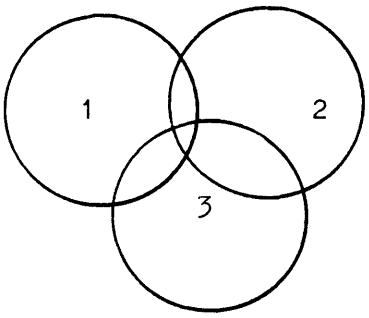
INCLUSIDE DECISION-MAKING TERRITORIES	COMPLEMENTARY DECISION-MAKING TERRITORIES
	
- decision-making territories are arranged on the basis of control and imposition.	- decision-making territorial arrangement responds to the ideas of autonomy, negotiation and participation.
- increase instances where there is a need for consensus. (territorial overlap)	- diminishes area where there is need for consensus. (territorial overlap)
- increase the need for explicit information in order to make decisions.	- diminishes need for explicit information in order to make decisions.
- minimizes the use of implicit information possessed by the different actors.	- maximizes the use of implicit information.
- exercize greater control and restriction over grass-root actors' decisions	- gives greater freedom to the different actors to make their own decisions.
- have a tendency to establish a vertical top-down communication/decision-making structure.	- has tendency to generate horizontal decision-making.
- obtaining feed-back on consequences of decisions made at one level requires special effort	- feed-back on consequences of decisions made in one decision-making territory is intrinsic to the structure.

Fig. 3: COMPARATIVE TABLE OF INCLUSIVE AND COMPLEMENTARY DECISION-MAKING TERRITORIES

Understanding the advantages of a decision-making structure which enables the formation of complementary decision-making territories, one can make the following statements:

1. The distribution of the project decision-making region among the different actors involved, in the form of decision-making territories, should be based on the nature and extent of the "implicit" information possessed by each of the actors.

2. The making explicit of information possessed by the different actors should be limited to the extent needed in the areas where decision-making territories overlap, so negotiation can take place. In other words, it should be limited to those areas where there is a need for consensus.

3. The overlap of decision-making territories' (areas in need of consensus), should be minimized to the point where the decision-making structure is on its highest operational level; this means, minimizing the overlap to the point where there is least possible friction in the structure, greatest autonomy and freedom of actors to make their own decisions, and maximum participation of all actors involved.

4. Areas of overlap should garantee the existence of appropriate feed-back on the consequences of decisions taken in various territories. Feed-back should help in redefining and rearranging decision-making territories and areas of overlap, so as to work as a dynamic structure responding to the prevailing circumstances, (thus improving its operational level.)

5. Finally, in order to enable the formation of complementary decision-making territories, there should be some devolution of decision-making power so that grass-root actors have greater control and access to resources, giving them the basis for real participation.

Given the limited scope of the issues analyzed in this thesis, some of this basic lessons and principles remain necessarily general. However, each opens an area for further exploration and research.

In guiding their further development, there is one factor in particular which should be born in mind: People out there in all levels of the real world, possess enough useful and untapped information to make their appropriate and sensible decisions. The only thing that they need is to be given the opportunity to put their knowledge to good use.

APPENDIXES

APPENDIX 1: THEORIES ON URBAN INFORMATION SYSTEMS & DECISION-MAKING

The information systems theories reviewed here, are representative of a line of thought developed during the 1960s, which is known as the Rational Planning Model. The main assumption underlying this model is that planning decisions should be based on scientific measurements which lead to objective information about a particular situation. It is understood that in order to make a plan, the first prerequisite is to acquire information on the phenomenon of interest, which is then used to take decisions based on scientific and technical criteria. The model attempts to replace the political process that takes place while planning by this logical, rational and technically sound process, in an effort to improve efficiency and equity.

The critics of the model have mainly focused on pointing out that its main objective is to validate and justify decisions already made. Thus, in the long run it is only a complex apparatus for validating a way of thinking. In addition, critics have also raised the issue of the insensitivity of the model towards the political decision-making process, saying that it was utopian and dangerous to replace the political factor by statistical parameters and professional/technical judgements. Moreover, the Rational Planning Model has been blamed for its lack of sophistication in measuring complex social and political matters. The model has been accused of promoting a planning process which neglects the existence of socio-political networks, consequently biasing the perception of problems and priorities.

The following pages review the existing theory on urban information systems, in an attempt to uncover its main assumptions. This review has been helpfull in developing the analytical framework that was used in the case study of Sri Lanka.

THE NATURE OF AN URBAN LIS INFORMATION SYSTEM.

The concept of an urban information system evolved from the need felt by policy makers and planners to improve the information base for deciding on urban policy issues, as well as on formulation and implementation of settlement improvement plans. Thus, an urban information system is expected to clarify the relations between the settlers and their environment in order to inform the planning process.

In the context of this thesis it can be pointed out that if the objective of an urban information system consists of identifying settlers' needs and priorities, or more generally, of attempting to uncover the existing problems and priorities to the decision-makers, then one must understand the principles that structured these systems, and what some of their basic issues are.

Should urban information systems just be dealing with physical issues and therefore be adequate only for physical planning, or, should they be responsive to further tasks such as broad system planning addressing social and economic problems? In either case, in order for an information system to work, an understanding on the requirements of the environment in which it operates is needed.

In studying urban information systems, it is useful to look at a conceptual model which may provide a preliminary understanding of how the system operates, and may also afford a quick identification of the pertinent questions and problems which relate to the performance of those systems in use.

But before presenting the information system theoretical model, the context in which some concepts are used in this part of the thesis should be clarified.

"Information" as a concept is viewed in this theory review as: 1) material which can be used for decision-making and planning, and, 2) material which informs the implementation of the decisions that further develop and improve the situation of the urban low income settlement system.

As Fisher (1) says:

"The word information is not strictly synonymous with data; it is intended to denote more than simply a collection or copilation of observations". Information is define as: "...collected data which has been processed, analysed, and transformed into a form which is **needed** and **usable** by decision-makers".

This leads one to stress the particular theoretical assumption that, in order for the transformation of data into information to take place a specific question must be addressed concerning attributes of the specific phenomenae to be analysed. It can be reasonably argued that information can only be useful when it aids a selection process. It is fundamentally linked to the decision-making process, which, as further is presented in this review section, is the fundamental component of an information system.

COMPONENTS OF A GENERALIZED INFORMATION SYSTEM: TOWARDS A CONCEPTUAL MODEL

The conceptual model of an information system is presented by many authors within a general system theory. Therefore, within it, a system, subsystems or componets, elements and their relationships are recognized. This approach has the particular advantage of directing its attention to the interrelationships of various processes and the interaction of system components which support them.

Yuvits and Ernst (2), present a simple but comprehensive generalized model, (Fig 1.), that can be summarized for the purposeof these study.

Any system is comprised of four essential functions. There is an **Information Acquisition and Dissemination** function (IAD), a **Decision-Making** function (DM), an **Execution** function (E), and a **Transformation** function (T). It is suggested that most situations involving the flow of information can be described by the model.

(1) James S. Fisher, The Information System: Its Perspectives and some Fundamental Needs. Center for Urban Studies, University of Illinois, Sept. 1968

(2) Marshall C. Yovits and Ronald L. Ernst, Generalized Information Systems: Consequences for Information Transfer. "People and Information", Pergamon Press, 1970.

The model assumes that is not necessary for the decision-making process be logical. The model is also applicable when decisions to be made are irrational, or without logical or analytical bases. This, allows one to analyse any information system in use. Each function is assumed to collect input, store, operate and disseminate its output.

In any realizable and operational system, all the indicated functions must be present in one way or the other. Moreover, the functions must be considered together for a complete understanding of how information flows, in order to establish principles, relationships, and guidelines for information transference. The inherent nature of a system implies that suboptimization or isolated consideration of the functions may result in misleading or incorrect results.

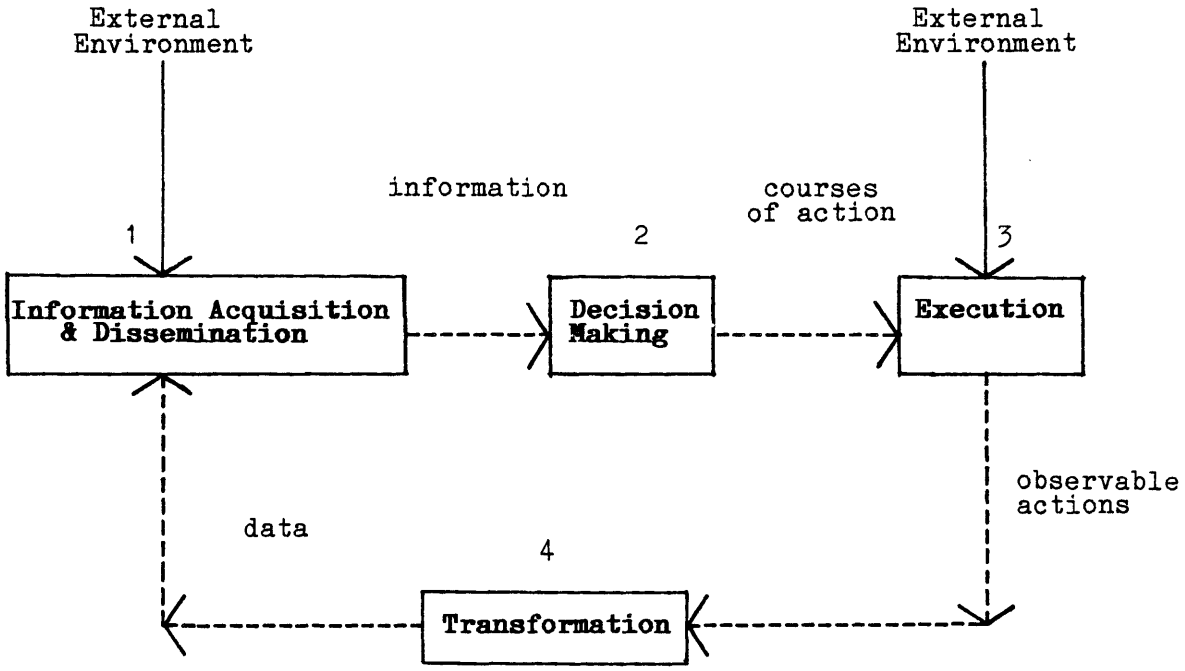


Fig. 1. GENERALIZED INFORMATION SYSTEM.

source: M.C. Yovits and R.L. Ernst, paper: "Generalized Information Systems: Consequences for Information Transfer", in People and Information. Pergamon Press, New York, 1970.

The decision-making function is the most important one and should be established as the key consideration in the entire information flow process. The DM function represents any system component which accepts inputs from IAD and provides an output to E. The DM may be an individual or organization (man-man system), a man-machine, or machine system, (computer). In any of these cases the Decision-Making function transforms information into observable actions. The DM makes decisions on the basis of the informationm available at some particular time. In keeping the system operational, the observable actions should be measured in physical quantities or qualitative parameters.

A second important point relates to the closure of the feedback loop to the DM. In any system this loop must be present to provide a basis for retaining or altering the courses of action disseminated, and it is only on this basis that DM is able to alter or refine decisions intelligently.

In any system, feedback is always present, whether or not is explicitly intended. The point is to consider it in some meanningful way. This feed-back loop is accomplished through the transformation of the observable actions into data by various measuring devices. The data is collected by the IAD, processed and disseminated to the DM.

The model of a generalized information system as shown in Fig. 1. consists of these four essential functions, all which must be present. Since information is used only so that decision-makers can make decisions of some kind, then it is most appropriate to start with that particular function.

Decision-Making function

The DM **collects** information from the IAD. Three basic kinds of information are collected:

1. Information on the particular activity under consideration. That is, data that have been obtained by trasforming the observable actions resulting from operations of the Execution function.

2. Information on the external environment, over which decision-makers have no control but may and should have knowledge, (i.e., information on the particular situation of interest and its relation with the environment.)

3. Other information that DM may utilize includes reports, tables, standards, personal knowledge, lawfull relations, etc.

DM also **stores** this information on a data base or memory to be retrieved when needed.

DM **operates** in the following ways:

1. It develops a predictive model which it believes will transform the information recieved into the appropriate observable actions to be executed.

2. It may alter recommended courses of action by using the same predictive model as further information on particular activities or resulting observable actions become available.

3. It may develop new models as further information becomes available either concerning the observable actions or the external environment. Thus, the original predictive model may be interpreted as incorrect or inadequate, independent of the courses of action suggested.

DM **disseminates** courses of action (results of decisions) communicated to the E function.

Execution Function

The E function is responsible for transforming decisions into observable actions. It **collects** courses of action from DM and interferences from the external environment. If it were not for these interferences from the external environment, E would be essentially deterministic and would transform decisions in a predictable way into observable actions. It is largely the action of the external environment which provides the inherent uncertainty in the process of trasforming information into observable actions.

The E function is strictly a transformation process. It **operates** by transforming decisions into observable actions. It **disseminates** these observable actions. In many situations some if not all the functions of E may be subsumed by the DM. However in these instances the decision-maker is not acting purely within the DM capacity, as happens in many other processes.

Observable actions are quantities which are physical in nature but might have social, economic, environmental, or other impacts related to them. They are capable of being observed or meassured. They are neither data nor information, but can be transformed into data which then may be processed into information.

Transformation Function

The T function transforms observable actions into data or information. In fact, each function shown in Fig. 1., transforms its input from one conceptual form to another as output, preserving the system variables.

The T function is fundamentally a measuring device which transforms the physical observable actions into data. Thus, it **collects** observable actions, **stores** nothing, **operates** by transforming observables, and **disseminates** data.

Information Acquisition and Dissemination Function

This is more accurately descrived as the Information Acquisition, Storage and Dissemination Function. The IAD, frequently referres to this as an "information system". It is itself just an open-loop system and only a component of a closed-loop system as the one shown in Fig. 1.

The IAD **collects** data from three different sources:

1. The particular activity under consideration. That is , data that have been obtained by transforming the observable actions.
2. The external environment
3. Basic data such as references, tables , standards, reports, etc.

The IAD **stores** a data base. Moreover, it **operates** on collected data and stores it in anumber of different ways.

The operations which the IAD performs on the data may be listed as:

a. restructuring
b. filtering
c. selection & rejection
d. analysing
e. sequencing or ordering
f. prediction
g. display.

IAD finally **disseminates** data for the use of the decision-makers.

It is appropriate to mention that the data or information may be disseminated to the DM, or the DM may actively interact with the IAD to obtain the appropriate information. In either case, the DM performs some of the operational funtions of the IAD. However in doing this the DM is not acting as a DM but as a functional component of the IAD, as previously indicated. The IAD function thus provides the DM with the information that the decision-maker needs for performing its functions in the most effective manner.

INFORMATION SYSTEMS AND THE REAL ENVIRONMENT

It is important to discuss the relationship between the real environment and the information system. A very useful model of human occupancy of an area which has been developed by Tomas and Schofer (3), and is used by Fisher (4), should be examine.

The model is assumed to be bounded geographically. The specific bounds used must relate to criteria which have meaning and relevance to a particular purpose or problem. Since it is a very general model (Fig. 2.), the authors thought it sufficient to identify the significant relationships and interactions of only three major subsystems. These are the physical subsystem, the human subsystem, and the activity subsystem.

(3) Edwin N.Tomas and Joseph L. Schofer, Informational Requirements for Evaluating the Social Impacts of Transportation. "Transportation: A Service". Special publication of the New York Academy of Science, 1968.
(4) Fisher, James S. "The Information System: Its Perspective and Some Fundamental Needs". Center for Urban Studies, University of Illinois, Sept. 1967, pp 51-70.

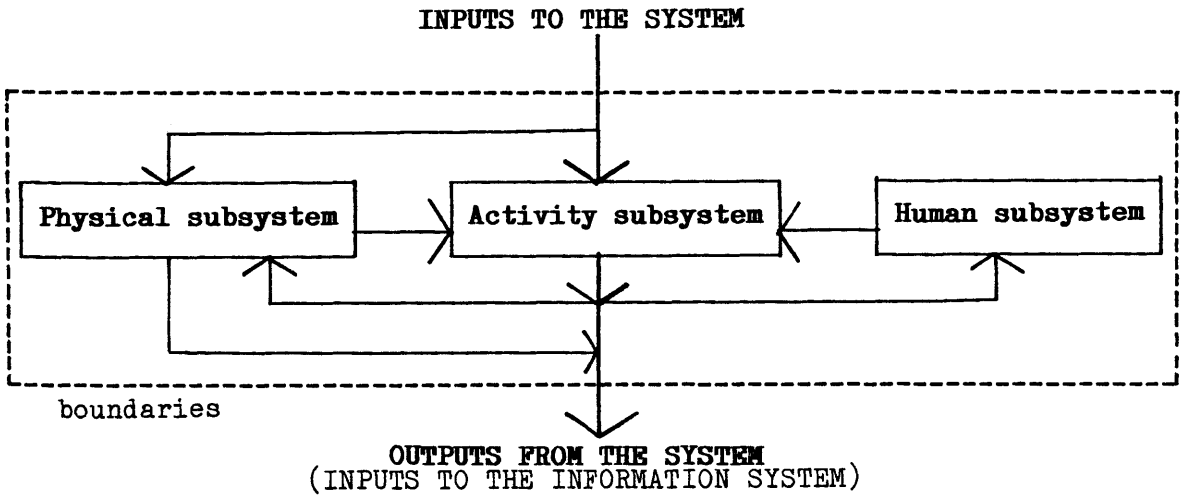


Figure 2: THE GENERALIZED REGIONAL SYSTEM MODEL

source : E. N. Thomas and J. L. Schofer, "Strategies for the Evaluation of Alternative Transportation Plans," Part I, Northwestern University. 1967.

The Physical Subsytem:

The physical subsystem contains components which are both natural and man-made. The former are recognized in natural phenomena such as water soil, or land forms. The latter are represented in a host of man made features such as buildings, roads, boundaries, infrastructure etc. Relationships between the natural and man-made subsystems exist through the functioning of the activities subsystem.

The Human Subsystem

The human subsystem may logically be divided into two additional components: individuals and groups. At a minimum four classes of general information are required to adequately characterize both individuals and groups. These four are:

1) economic (employment, occupation, income)
2) biological (age, sex, health)
3) social (segregation, organization, status)
4) psycological (mental health, attitudes)

In addition to the components of the two mayor subsystems, inputs and outputs to and from the system occur in the form of materials, information, capital, inmigrants, and demand.

The Activity Subsystem

The activity subsystem as a major component of the regional settlement system is basically a processor through which all the other components relate and interact with one another. The operation of the system revolves about this activity system and has been summarized by Thomas and Schofer as follows:

> ...taking the existing system state, plus inputs to the system, the human subsystem, composed of individuals and groups having various characteristics, executes a set of activities, called the activity subsystem, against a physical background - - the physical subsystem which itself has a set of characteristics and performance properties. In other words, the activity subsystem is actually an interface between the human subsystem with its properties and the physical subsystem with its own characteristics. In general, the results of the activities flow out of the system as outputs, into the physical subsystem to mantain or change it, or into the human subsystem.

This model is easily coupled with the generalized information system (Fig. 1) presented earlier. It will provide a framework for the IAD function to look at the low income settlement system in a more dynamic way, centering its attention in the interrelatioships and interaction of the subsystems. The kind of activities which result from the operation of this system involve planning and control. Decision-makers recieve information from the IAD function and decide on the courses of action to be followed in the area. Thus planning and control should take place as an attempt to ensure the performance of the settlement system at an acceptable level.

Essentially the planning and control mechanism will function as an activator of processes which will occur within the operational framework already defined in the generalizable information system. In particular the DM operations, will result in the following procedural strategies identified by Thomas and Schofer:

1) Monitoring and modifying some aspects of the physical subsystem.
2) Stimulating or inhibiting particular activities.
3) Making direct investments, economic or otherwise in individuals or groups.

Making the decisions to implement programs or projects which will result in benefical impacts requires the support of a complete but not complicated information system capable of monitoring all subsystems and their components. The capability of this information system must be comprehensive enought to include capacities which involve not only data collection, but integration and developmnet of information from observations made in the settlement system. Specifically, the monitoring of the system and the subsequent development of information concerning these observations facilitates the decision-making process.

INFORMATION NEEDS: What do you want? - What do you have?

It was mentioned earlier that in order to determine what information needs to be gathered there is the prerequisite of asking a pertinent question about the particular phenomenon of interest. There is a need to define first the questions and the way these questions are going to help in the decision-making process before one figures out what data will be needed and how it will be collected and measured. This is not an obvious task and assumes substantial experience in the field on the part of decision-makers.

As Kennedy(5) mentiones in one of his chapters:

> It is popular to say that one must first determine what the requirements for data and information are before an attempt is made to provide a capabilityto make good decisions. This implies a two-step process: determine needs, build capability.
>
> It is not so simple. Often people cannot articulate their needs because they have little idea what is possible to be accomplished. And once they know what is possible, and begin to use it, a new need is generated.
>
> The lesson:
>
> There is no neat straightforward procedure for determining data needs. The process continually cycles between recognition of what is needed and what is possible.

Several fundamentally related questions are: what should be measured and what are the informations needs of the settlement system, or of the complex interaction of the physical, activity, and human subsystems

(5) Kennedy, Michael. "Spatial Information Systems: An Introduction". Urban Studies Center, University of Lousville, 1979.

which will be of interest as output? What, out of the potential information is going to be useful for maximizing efficiency and equity in deciding courses of action? What data could be feasible to gather and measure with the existing capacity and capabilities?

In discussing these issues related to the support provided by statistics to information systems, Likert(6) considers two notions of systems which aid in identifying the above problems.

Likert classifies two basic kinds of information. Information about the **nature** of settlement systems and about the **state** of the systems.

Information about the **nature** of the system involves focusing on the structure and operations within the system, or a focus upon the interrelationships and associations of phenomena which comprise the processes and component parts of the system. Structure refers to the organization of components and to the operations of activities or processes which occur in a system.

Information on the **state** of the system should reveal what is currently known about the performance traits of the system. Population size and rate of growth, volume of production within the settlement, migration, etc,as well as some of the more subjective social aspects of the settlement system. In doing so, the potentials consequences and implications of all these factors should also be included. This requires attention to system capabilities, inputs, and outputs. The monitoring of the system performance must be continuous so to keep track of changes in it and in societal priorities, thus, allowing for redirection of courses of action, if there is a need. While information on the nature (structure and operation) of the system is certainly important, if not essential, it may be that the latter, i.e., information on performance of the system, which is more critical in settlement upgrading nowadays, is more in need of attention and improvement.

(6) Likert, R. "The Dual Function of Statistics". The Journal of the American Statistical Association, Vol. 55, April, 1974

SOCIAL INDICATORS AND THE INFORMATION SYSTEM: THE NEED FOR IMPROVEMENT

Among the difficulties of obtaining valuable information for decision-making, is the problem of measuring social aspects within a settlement system that allows one to understand the state of social issues and the potential social costs and benefits associated with the execution of particular courses of action.

Fisher(10), refers to the ultimate value of an information system as the measure of the effectiveness of decision-making. He states that an information system must provide:

1) adequate understandings of the nature or structure of the physical, human and activity systems.

2) accurate information on the state (performance) of the systems.

3) reliable information concerning probable performances (anticipated concequences identified via a preconceived simulation models).

It is the second product of the information system and its processes which is essentially the feedback loop to the DM as stated in the generalized information system. (Fig. 1.). Specifically, it is the development of adequate **measures of performance** which require a considerable degree of effort in structuring an information system.

The performance of a settlement system ultimately relates to the satisfaction of human interests. Some of the outputs of the system can be measured as tangible goods and services, others, only as intangibles. These tangible, **objective interests**, particularly those of an economic nature, are the ones that have recieved the greatest attention at the expense of the more intangible, **subjective interests.**

Objective interests may be identified as activity, employment, leisure, health, survival, and income. Examples of subjective interests are contentment, participation, affection, belonging, status, respect, and challenge.

When evaluating inputs to the system it seems reasonable to accept economic cost as the basic measurement of resource requirements. However, when evaluating the output or inpacts in the settlement system, the same assumption is not valid. Many of the side-effects, as well as the direct effects, are not easily translatable into economic terms without losing qualitative aspects --nor should they be. The impacts in the quality of life within the settlement system, not just the quantity of things alone, must be assessed in evaluating performance. The question still remain, do we have adequate social indicators with which to evaluate the quality of life? How do we measure and evaluate, in a sensitive manner, the performance of settlement systems and the variety of subsystems (economic, social, physical) in such a way as to make meaningful and correct decisions concerning our future direction and development? These are all questions that need to be addressed, one way or the other, by the decision-makers involved, probably in a very context-particular manner that considers the prevailing situation of the existing settlement systems.

APPENDIX 2: SLUM & SHANTY DIVISION UPGRADING PROCEDURE: SUMMARY

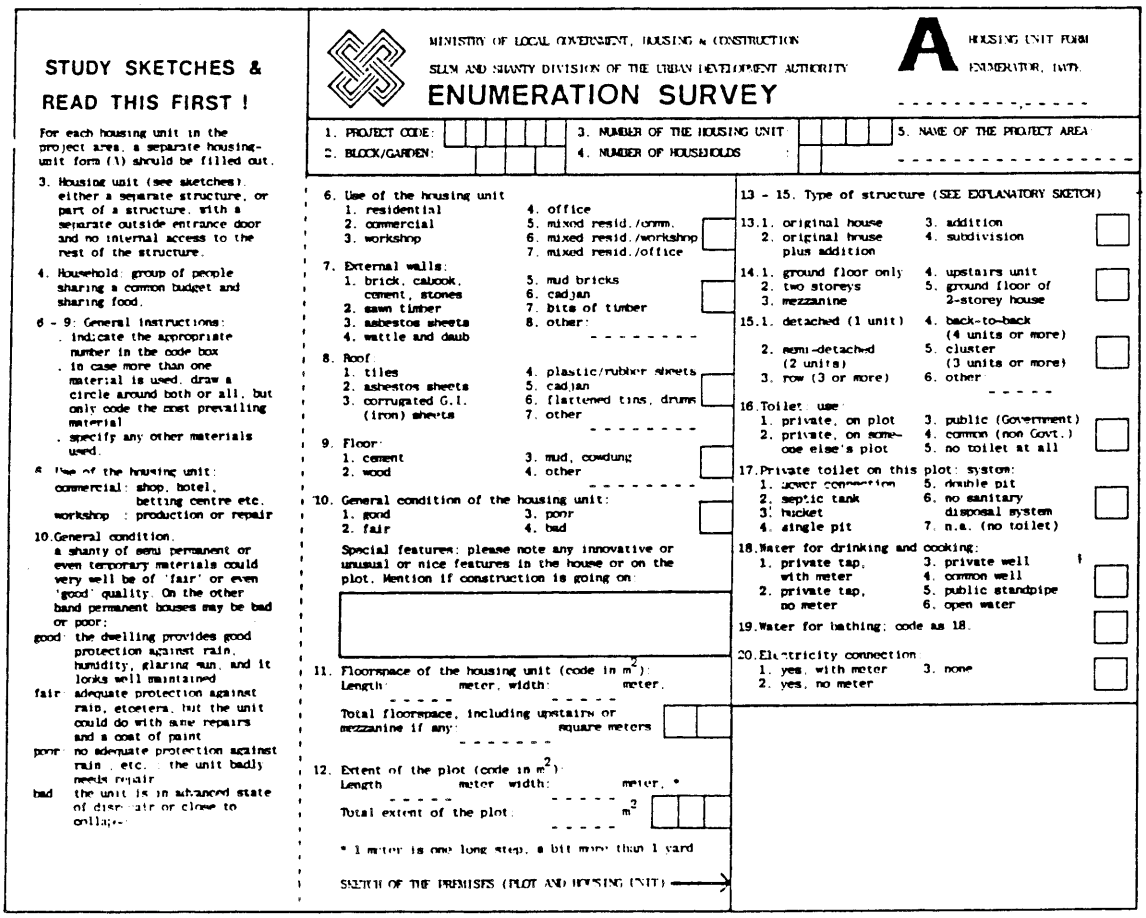
DEMONSTRATION PROJECTS

Information | Training | Upgrading | Information | Training

INFORMATION	DATA NEEDS	TRAINING INPUTS	UPGRADING PROCESS	DOCUMENTATION	MONITORING & EVALUATION
. SHORT FILMS . BROCHURES . RESEARCH STUDIES . WORKSHOPS . DISPLAY MATERIAL . PREPARATION AND CIRCULATION OF HANDBOOKS.	I. Background studies on Urban Housing Issues II. Evaluation Studies of previous projects; Studies to establish Target groups. III. Definition and Inputs of Guidelines IV. Resources and Constraints of prospective Management Groups.	. Seminars with specific themes. . Orientation Sessions for Management Staff.	I. POLICY FORMULATION AND SHELTER SECTOR COMMITMENTS II. PROGRAMME DEVELOPMENT III. PROJECT FORMULATION IV. MANAGEMENT FRAMEWORK V. UPGRADING AND SHELTER PROVISION PROCESS.	I. . POLICY DOCUMENTS . SHELTER SECTOR STUDIES. II. SYSTEM OF DATA MANAGEMENT. III. . PROJECT REPORTS . DRAWINGS ETC.	
. AUDIO - VISUALS on different circumstances of the problem.	1. Survey to assess physical, land/legal and resource conditions and decide feasibility.	1. PROJECT STAFF . Familiarisation with characteristics of low income settlements . Criteria for upgrading relocation.	(1) RECONNAISSANCE SURVEY	1. QUESTIONNAIRE	
	2.1 OPINION. 2.2. Commitments to co-operation.		(2) DISCUSS WITH SPONSORS AND INTEREST GROUPS. Formulate Prelim.Proj. brief.	2. "NOTE FOR THE RECORD"	
	3. DATA ON NATURE Functions, Area of Authority and Performance record.	3.1 PROJECT STAFF . Arrangements for Community meetings and Leadership training.	(3) IDENTIFY AND ESTABLISH COMMUNITY ORGANISATION.		
	4. DETAILS OF STUDY 4.1 Investigation of ownership. 4.2 Technical Data 4.3 "Enumeration Survey" . Physical quality of housing units. . Tenure of households and their composition. 4.4 "Baseline Survey" Sample of Households. . Demography . Deficiencies and Preferences to Services . Employment and Income . Participatory Research	4.1 TECHNICAL OFFICERS AND PROJECT OFFICERS. . Training in Physical surveys. 4.2 FIELD ENUMERATORS. . Identification of housing units and households. . Issue of 'E' cards. . Assessment - Physical condition. . Investigation Procedures. . Interviewing techniques. 4.3 EVALUATION TEAM AND PROJECT OFFICERS. . Questionnaire formulation, sampling techniques, coding, etc. . Basic skills in survey analysis & use of data. 4.4 PROJECT OFFICERS. . Community involvement in research. . Sensitivity to Community and leadership response.	(4) CARRY OUT BASIC SURVEYS. 4.1 Land/Legal 4.2 Physical/Technical 4.3 Community Resources 4.4 Support Agency Resources. 4.5 Enumeration & Registration. 4.6 Socio- Economic Characteristics. 4.7 Identification of problem areas. - NEED ASSESSMENT	4. SURVEY RECORDS (VISUAL, DESCRIPTIVE etc.) 4.1 Aerial Survey Photos 4.2 Information on spot levels. 4.3 Photographs of activities already on.	4. EVALUATION OF MANAGEMENT EFFICIENCY. 4.1 Study of Institutional/ Management links and networks.
		5. PROJECT OFFICERS AND MONITORING & EVALUATION OFFICERS. . Formulation of objectives . Brain Storming. . Anticipation of consequences.	5. DEFINITION OF TARGET GROUPS & STATEMENT OF PROJECT OBJECTIVES		

	6. DATA ON 6.1 Options of Infrastructure amenities & limitations. 6.2 Options of Layouts and Limitations. 6.3 Acuteness of Deficiencies and Priorities of community 6.4 Capacity and Response of Households to House Improvements.	6. PROJECT STAFF. 6.1 Orientation to Services Engineering. 6.2 Preparation of B.O.P's and Instruments of Disposition. 6.3 "Organising Children's week, Mother's Day etc. 6.4 Techniques of monitoring and recording.	6. PREPARATION OF PLANS OF ACTION: STATEMENT OF INPUTS AND OUTPUTS. 6.1 Basic Infrastructure amenities and Site Development Plan. 6.2 Tenurial Regularisation & Plot allocation plan. 6.3 Community Services Plan. 6.4 Housing Advisory Services Plan		6. MONITORING. 6.1 Recording of Community Decision Making Process 6.2 Recording of Selection Criteria for Infra-structure Plan and Tenurial Regulation.
		7.1 PROJECT STAFF. Preparation of Project Documents. 7.2 M. & EV. OFFICERS. Evaluation methods and adequate measurements. 7.3 Net work, Bar Charts etc.	7. FINALISATION OF PROJECT DOCUMENT. 7.1 Nature & Magnitude of problem. 7.2 Statement of Objectives. 7.3 Description of activities 7.4 Resources 7.5 Participating groups 7.6 Methods of Implementation 7.7 Time Schedule 7.8 Plan of Monitoring 7.9 Role casting		7. EVALUATION 7.1 Formulate HYPOTHESIS for Project Evaluation. 7.2 Develop Measurement Indicators of Project Outcomes. . Focus on reliability and validity of measurements. 7.3 Develop Research Format for Evaluation
			8. ESTABLISH ACTIVITY SUB - GROUPS. 8.1 Maintenance Group 8.2 Tenurial Regularisation and Loans Processing groups. 8.3 Women's Group 8.4 Youth Group.		8. MONITORING . Continuous Recording of Process of Community Organisation and Feed-back Reporting on Management Meetings.
9. PROJECT SPECIFIC STUDIES. To provide project Management with issue - related data. . REGULARISATION PROCESS AND PRACTICES.			9. COMMENCE : IMPLEMENTATION 9.1 Briefing to Project Team. 9.2 Briefing to Activity Sub-groups. . M - Group . T.R. & L.P. Group . W. group . Y. group. 9.3 Management of Activities . Development of Site . Execution of B.O.P. or Regularisation Plan . Provision of Basic Amenities and Infra-structure. . Provision of Housing Advisory Services. . Execution of Community Services Plan. . Arrangement for Children's week. . Granting instruments of disposition. . Administration of Loan Scheme.		9. MONITORING/EVALUATION 9.1 Systematic Progress Overview of Major activity. 9.2 Overview of Implementation processes : Efficiency, Bias in Participation. 9.3 Regular Community attitudes to Project. 9.4 Identification of Key problems and Issues for further study.
10. IMPACT ASSESSMENT AND EFFICIENCY IN PROJECT EXECUTION. . Follow-up Studies.			10. ADJUSTMENTS TO IMPLEMENTATION. 10.1 Amendments to Project Brief and Budget. 10.2 Refinement and Changes to Strategy. 10.3 Changes in Activity Sub-groups. 10.4 Changes in Project Team.		10. GENERAL EVALUATION On completion of physical implementation. . Overall efficiency . Impact on Participants and Beneficiaries. . Policy Implication.
			11. HANDING OVER TO MANAGEMENT GROUPS. 11.1 Maintenance 11.2 Community Services 11.3 Repayment 11.4 Shelter Improvement		
			12. WITHDRAWAL		

APPENDIX 3: SLUM & SHANTY DIVISION ENUMERATION SURVEY SHEETS



STUDY SKETCHES & READ THIS FIRST !

For each housing unit in the project area, a separate housing-unit form (A) should be filled out.

3. Housing unit (see sketches): either a separate structure, or part of a structure, with a separate outside entrance door and no internal access to the rest of the structure.

4. Household: group of people sharing a common budget and sharing food.

6 - 9: General instructions:
- indicate the appropriate number in the code box
- in case more than one material is used, draw a circle around both or all, but only code the most prevailing material
- specify any other materials used.

8. Use of the housing unit:
commercial: shop, hotel, betting centre etc.
workshop : production or repair

10. General condition.
a shanty of semi permanent or even temporary materials could very well be of 'fair' or even 'good' quality. On the other hand permanent houses may be bad or poor:
good: the dwelling provides good protection against rain, humidity, glaring sun, and it looks well maintained
fair: adequate protection against rain, etcetera, but the unit could do with some repairs and a coat of paint
poor: no adequate protection against rain , etc. the unit badly needs repair
bad: the unit is in advanced state of disrepair or close to collapse

MINISTRY OF LOCAL GOVERNMENT, HOUSING & CONSTRUCTION
SLUM AND SHANTY DIVISION OF THE URBAN DEVELOPMENT AUTHORITY

ENUMERATION SURVEY

A HOUSING UNIT FORM
ENUMERATOR, DATE: _____

1. PROJECT CODE: | | | | | | |
2. BLOCK/GARDEN: | | | | |
3. NUMBER OF THE HOUSING UNIT: | | | |
4. NUMBER OF HOUSEHOLDS: | |
5. NAME OF THE PROJECT AREA: _____

6. Use of the housing unit
1. residential 4. office
2. commercial 5. mixed resid./comm.
3. workshop 6. mixed resid./workshop
7. mixed resid./office

7. External walls:
1. brick, calcook, cement, stones 5. mud bricks
2. sawn timber 6. cadjan
3. asbestos sheets 7. bits of timber
4. wattle and daub 8. other: _____

8. Roof
1. tiles 4. plastic/rubber sheets
2. asbestos sheets 5. cadjan
3. corrugated G.I. (iron) sheets 6. flattened tins, drums
7. other _____

9. Floor:
1. cement 3. mud, cowdung
2. wood 4. other _____

10. General condition of the housing unit:
1. good 3. poor
2. fair 4. bad

Special features: please note any innovative or unusual or nice features in the house or on the plot. Mention if construction is going on:

11. Floorspace of the housing unit (code in m^2):
Length: _____ meter, width: _____ meter.
Total floorspace, including upstairs or mezzanine if any: | | square meters

12. Extent of the plot (code in m^2):
Length _____ meter, width: _____ meter, *
Total extent of the plot: | | | m^2

* 1 meter is one long step, a bit more than 1 yard

SKETCH OF THE PREMISES (PLOT AND HOUSING UNIT) →

13 - 15. Type of structure (SEE EXPLANATORY SKETCH)

13.1. original house 3. addition
2. original house plus addition 4. subdivision

14.1. ground floor only 4. upstairs unit
2. two storeys 5. ground floor of 2-storey house
3. mezzanine

15.1. detached (1 unit) 4. back-to-back (4 units or more)
2. semi-detached (2 units) 5. cluster (3 units or more)
3. row (3 or more) 6. other _____

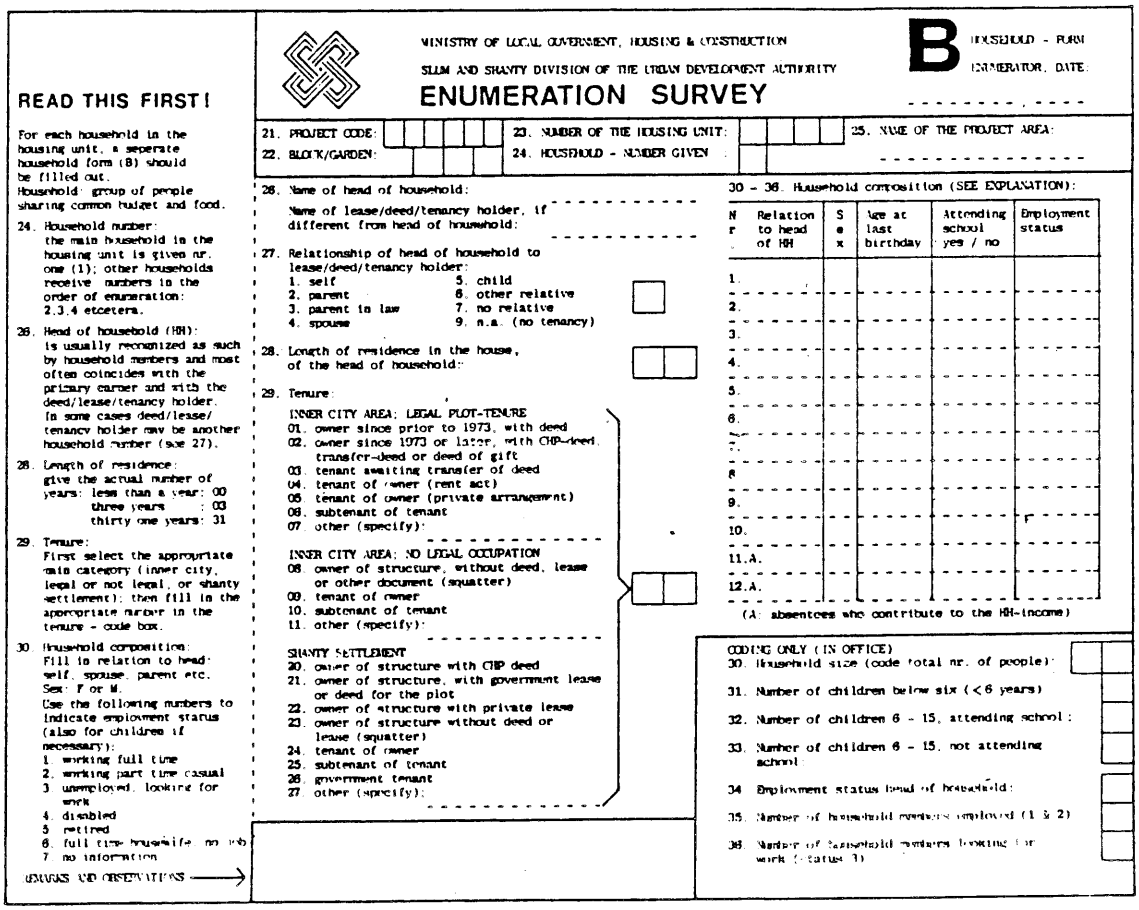
16. Toilet use:
1. private, on plot 3. public (Government)
2. private, on some-one else's plot 4. common (non Govt.)
5. no toilet at all

17. Private toilet on this plot: system:
1. sewer connection 5. double pit
2. septic tank 6. no sanitary disposal system
3. bucket 4. single pit 7. n.a. (no toilet)

18. Water for drinking and cooking:
1. private tap, with meter 3. private well 4. common well
2. private tap, no meter 5. public standpipe 6. open water

19. Water for bathing: code as 18.

20. Electricity connection
1. yes, with meter 3. none
2. yes, no meter



READ THIS FIRST!

For each household in the housing unit, a seperate household form (B) should be filled out.
Household: group of people sharing common budget and food.

24. Household number:
the main household in the housing unit is given nr. one (1); other households receive numbers in the order of enumeration: 2,3,4 etcetera.

26. Head of household (HH):
is usually recognized as such by household members and most often coincides with the primary earner and with the deed/lease/tenancy holder. In some cases deed/lease/ tenancy holder may be another household member (see 27).

28. Length of residence:
give the actual number of years: less than a year: 00
three years : 03
thirty one years: 31

29. Tenure:
First select the appropriate main category (inner city, legal or not legal, or shanty settlement); then fill in the appropriate number in the tenure - code box.

30. Household composition:
Fill in relation to head: self, spouse, parent etc.
Sex: F or M.
Use the following numbers to indicate employment status (also for children if necessary):
1. working full time
2. working part time casual
3. unemployed, looking for work
4. disabled
5. retired
6. full time housewife, no job
7. no information

REMARKS AND OBSERVATIONS →

MINISTRY OF LOCAL GOVERNMENT, HOUSING & CONSTRUCTION
SLUM AND SHANTY DIVISION OF THE URBAN DEVELOPMENT AUTHORITY

ENUMERATION SURVEY

B HOUSEHOLD - FORM
ENUMERATOR, DATE: _____

21. PROJECT CODE:
22. BLOCK/GARDEN:
23. NUMBER OF THE HOUSING UNIT:
24. HOUSEHOLD - NUMBER GIVEN
25. NAME OF THE PROJECT AREA: _____

26. Name of head of household: _____
Name of lease/deed/tenancy holder, if different from head of household: _____

27. Relationship of head of household to lease/deed/tenancy holder:
1. self
2. parent
3. parent in law
4. spouse
5. child
6. other relative
7. no relative
9. n.a. (no tenancy)

28. Length of residence in the house, of the head of household:

29. Tenure:

INNER CITY AREA; LEGAL PLOT-TENURE
01. owner since prior to 1973, with deed
02. owner since 1973 or later, with CHP-deed, transfer-deed or deed of gift
03. tenant awaiting transfer of deed
04. tenant of owner (rent act)
05. tenant of owner (private arrangement)
06. subtenant of tenant
07. other (specify): _____

INNER CITY AREA; NO LEGAL OCCUPATION
08. owner of structure, without deed, lease or other document (squatter)
09. tenant of owner
10. subtenant of tenant
11. other (specify): _____

SHANTY SETTLEMENT
20. owner of structure with CHP deed
21. owner of structure, with government lease or deed for the plot
22. owner of structure with private lease
23. owner of structure without deed or lease (squatter)
24. tenant of owner
25. subtenant of tenant
26. government tenant
27. other (specify): _____

30 - 36. Household composition (SEE EXPLANATION):

Nr.	Relation to head of HH	Sex	Age at last birthday	Attending school yes / no	Employment status
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.A.					
12.A.					

(A: absentees who contribute to the HH-income)

CODING ONLY (IN OFFICE)
30. Household size (code total nr. of people):
31. Number of children below six (< 6 years)
32. Number of children 6 - 15, attending school:
33. Number of children 6 - 15, not attending school
34. Employment status head of household:
35. Number of household members employed (1 & 2)
36. Number of household members looking for work (status 3)

APPENDIX 4: SLUM & SHANTY DIVISION BASELINE SURVEY SHEETS

MINISTRY OF LOCAL GOVERNMENT HOUSING AND CONSTRUCTION

Slum and Shanty Division - Urban Development Authority
BASE - LINE SURVEY

Record of Interview:

Visit No.	Month	Date Day	Year	Hour a.m.	p.m.	Interview Completed	Refusal (Reason)	Building Abandoned

A Identification

Name of Interviewer: .....

Name of Project Area: .....

Name of Head of Household: .....

Name of Spouse .....

1. Project Code :..... 1 2 3 4 5 6
2. Block/Garden Number:..... 7 8
3. Number of Housing Unit:.... 9 10 11 12
4. Household Number :..... 13
5. Number of Households in housing unit :..... 14

7. Tenure Status: 16 17

See enumeration Survey and Codebook

8. General Quality of the house: 18

1. good 2. poor
3. fair 4. bad

B DEMOGRAPHIC CHARACTERISTICS:

Household Roster

1 No.	2 Relation to Head of H'hold	3 Sex 1. male 2. fem.	4 Age at last birthday	5 Ethic Backround	6 Religion	7 Ability to read in diff. language	8 Marital status	9 Currently attending school 1.yes 2.no	10 Highest education level achieved	11 Employment	12 Time lived in Household
1	Head										
2											
3											
4											
5											
6											
7											
8											
9											
10											
11	absentee										
12	absentee										

2. Relation to Head
1. husband/wife
2. child
3. parent
4. parent-in-law
5. other-relative
6. no relative

4. Age
0. [21 years
1. 21-25 yrs.
2. 26-30 yrs.
3. 31-35 yrs.
4. 36-40 yrs.
5. 41-45 yrs.
6. 46-50 yrs.
7. 51-60 yrs.
8.]60 years
9. not known

5. Ethnic Background
1. sinhalese
2. tamil
3. moor
4. burgher
5. malay
6. other

6. Religion
1. Budhist
2. Hindu
3. Moslem
4. Christian
5. other
6. none

7. Language
1. Sinhala
2. Tamil
3. English
4. Sinh/Eng.
5. Sinh/Tamil
6. Tamil/Eng.
7. all three
8. other
9. none

8. Marital Status
1. married/common law
2. single
3. seperated/divorced
4. widowed

10. Education
1. no formal educ.
2. grade 1 - 5
3. grades 6 -10
4. grades 11-12
5. vocational training
6. professional/technical college education
7. university

11. Employment
1. regularly earning cash
2. sometimes earning cash
3. not earning: looking for work
4. student
5. housewife (no outside job)
6. retired
7. disabled

12. Time
0. less than 1 year
1. 1 year
2. 2 years
3. 3 years etc.
8. 8 or more
9. n.a. (part of nuclear family)

EDITOR ONLY (in office)

9. Age of Head of Household : ☐ 19
10. Sex of Head of Household : ☐ 20
11. Ethnic Background of Head-of Household : ☐ 21
12. Head's ability to read different languages : ☐ 22
13. Number of household members reading Sinhala : ☐ 23
14. Number of household members reading Tamil : ☐ 24
15. Number of household members reading English : ☐ 25
16. Marital status of Head of Household : ☐ 26
17. Education of Head of Household : ☐ 27
18. Size of Household (including Head) : ☐☐ 28-29
19. Total number of children 16 years : ☐ 30
20. Total number of children of 6-15 years: ☐ 31
21. Total number of children attending school : ☐ 32
22. Total number of earning Household members (including head) : ☐ 33
23. Total number of household members with vocational training : ☐ 34
24. Type of Household Composition : ☐☐ 35-36
(Start from Head of Household as central relation)

01. Single household head
02. Single head and dependent children
03. Single head and married children
04. Single head, with dependent children and married children
05. Single head with dependent children, and other adults(parents, brothers, sisters, cousins)
06. Single head sharing with friends/relatives
07. Couple
08. Couple and dependent children
09. Couple and married children
10. Couple with dependent children and married children
11. Couple, their dependent children and other related adults (parents, brothers, sisters, cousins)
12. Couple, sharing with friends/relatives
13. Others

25. Where did you grow up: ☐☐ 37-38
City/Town -------- District --------
See code book

26. How long have you lived in this city: ☐ 39

0. [1 year
1. 1 - 2 years
2. 3 - 4 years
3. 5 - 6 years
4. 7 - 8 years
5. 9 - 10 years
6. 11- 15 years
7. 16- 20 years
8.] 20 years
9. Born here

27. How long have you lived in this neighbourhood: ☐ 40
See coding question 26

28. How long have you lived in this house: ☐ 41
See coding 26

29. Which other neighbourhood in the city did you live in before you came here: ☐☐ 42-43
See code book

30. Why did you come to live in this neighbourhood? ☐ 44
0. Married/born here
1. Close to work
2. Better public services
3. Found a house here
4. Possibility to own a house here
5. Cheap houses
6. Safe and quiet
7. Was given a plot here
8. Relatives and friends here
9. Other ----------

C. HOUSING AND SERVICES.

We now would like to ask you some questions about your house and your living environment so that we may learn what preferences and priorities people have concerning their housing.

31. What do you like about your neighbourhood: (probe) ☐ 45
---

32. What do you dislike about your neighborhood: (probe) ☐ 46
---

33. What do you like about your dwelling: (probe) ☐ 47
---

34. What do you dislike about your dwelling: (probe) ☐ 48

Coding see code book

35. How many habitable rooms (excluding seperate kitchen and bathroom, not used for sleeping and eating) does your household occupy: ☐ 49

Code actual number

36. What is the floor area of these habitable rooms: ☐☐ 50-51
length: ----------meters
width : ----------meters
Code in m2

37. Where do you cook : ☐ 52
1. Inside the house, separate kitchen used by this household only
2. Inside the house, separate kitchen for shared use by several households
3. Outside the house, roofed kitchen
4. Outside the house, cooking place without a roof
5. In the living room/bedroom
6. Combination of 1, 2, 5 and outside cooking

38. What type of fuel do you mostly use for cooking: ☐ 53
1. electricity
2. bottled gas
3. kerosine/paraffine
4. sawdust
5. coal
6. wood
7. both wood and other fuel
8. other ----------

39. Where do you go for bathing: ☐ 54
0. in river, open water
1. at the communal well
2. at private well
3. at private well on neighbour's plot
4. at the public standpipe
5. portable basin in the house
6. public bathroom
7. at private water tap inside the house
8. private bathroom with water tap
9. other----------

40. Are there any problems with your bathing place: ☐ 55
0. no problems
1. water not available
2. crowded
3. not adequately drained, muddy
4. dirty/smelly
Code most important problem
5. no privacy
6. too far away
7. other----------
8. don't know
9. no bathroom

NOT IN RELOCATION AREAS:
41. How do you think the bathroom can be improved: ☐ 56

Code see code book 9. n.a. no bathroom

42. Which toilet do the adults in this household use: ☐ 57
1. no toilet; bush, drains
2. CHC public toilets
3. communal toilet for households of garden
4. communal toilet for households of this housing unit only
5. private toilet on neighbours plot
6. toilet for exclusive use of this household only

43. Are there any problems with the toilet: ☐☐ 58-59
00. no problems
01. smelly
02. often clogged
03. often no water
04. mosquito's/flies
05. no doors/privacy
06. children have a problem using it
07. flooding in rainy season
08. not emptied
09. too far a way
10. other----------
99. not applicable/no toilet
Code the most important

NOT IN RELOCATION AREAS:
44. How do you think the toilet facility could be improved: ☐ 60

Coding see code book

45. Where do the small children go to the toilet: ☐ 61

Coding question 42

46. How do you get your drinking water: ☐ 62
0. river, open water
1. public well
2. private well
3. private well on neighbor's plot
4. public standpipe
5. common tap for use of households of this garden only
6. private outside tap for this household only
7. private tap inside the house
8. other ----------

47. How many times per day do you and members of your household go to the public standpipe/well for water for drinking and cooking (not for bathing): ☐☐ 63-64

Code total number of times for whole household

48. How much water do you bring to the house per day: ☐ 65
Number of buckets or water pots
---
code exact number

49. Do you think it is necessary to boil the water before drinking: ☐ 66
1. yes
2. no

50. Where do you wash your clothes: ☐ 67
0. in the canal, river/open water
1. at public well
2. private well on neighbour's plot
3. private well
4. at public standpipe
5. in basin at home, carrying water to the house
6. at home; own tap,
9. other ----------

51. Where do you wash dishes: ---------- ☐ 68
Coding see question 50

52. What do you use to light your house: [69]
1. candle 4. gas lamps
2. oil lamps 5. electricity
3. paraffin/kerosine lamp 6. other----------

53. Do you have a yard: [70]
1. yes. 2. no.

54. If yes: what do you mostly use it for: [71]
1. gardening, vegetables 4. garbage disposal
2. gardening, plants/flowers 5. other----------
3. for social activities 9. n.a. no yard

55. Where do you dispose of your household garbage? [72]
1. individual bins 5. household compost pit
2. municipal garbage containers 6. communal compost pit
7. dumped elsewhere
3. burned in communal place 8. other----------
4. burned on plot

FOR THOSE USING PUBLIC FACILITIES:

56. Are the bathroom and water supply points you use the ones closest to your house: [73]
1. yes 2. no

57. If no: [74]
Why do you not use the facilities closer to your house:
1. only for residents of nearby garden, housing unit
2. only for owners(main tenants) of the house
3. dirty, smelly
4. crowded
5. close to public place
6. other (specify) ----------
7. other ----------
8. no answer
9. n.a

[1] [69]

Question 58 - 100 NOT IN RELOCATION AREAS

Are you generally satisfied with the following services:

		satisfied 1	'more or 'less 'satisfied ' 2	'dis- 'satisfied 3	
58.	1. Access to medical services				[14]
59.	2. Access to schools				[15]
60.	3. Quality of schools				[16]
61.	4. Public Lighting				[17]
62.	5. Access to public transport				[18]
63.	6. Access to Roads				[19]
64.	7. Garbage collection				[20]
65.	8. Other (probe)				[21]
66.	9. Others				[22]

67. Which of these services would you give the highest priority for improvement:---------- [23]
68. Which would you give second priority for improvement: --------- [24]
69. Which would you give third priority for improvement : --------- [25]
Code number of the service as under question 58 - 66

Are you generally satisfied with your housing conditions:

		Satisfied 1	'more or 'less 'satisfied ' 2	'dis- 'satisfied 3	
70.	1. Quality of house construction				[26]
71.	2. Arrangement of living space				[27]
72.	3. Toilet facilities				[28]
73.	4. Water supply				[29]
74.	5. Area of the dwelling				[30]
75.	6. Area of the Plot				[31]

76. Which of these housing conditions would have the highest priority for improvement for you : ---------- [32]

77. Which would have the second priority :---------- [33]
Code according to number under questions 70 - 75

FOR HOME OWNERS ONLY

78. How did you acquire the house: [34]
1. self-built, own family/ friends
2. self-built, with hired labour
3. contractor built
4. purchased from previous owner
5. handed it over by government
6. other ----------
9. not applicable (tenant)

79. In which year did you acquire it: ---------- [35]
Code last two numbers only: e.g. 1976 code 76 (99 for n.a.)

ONLY FOR THOSE WHO BUILT OR REBUILT THEMSELVES OR BOUGHT THEIR HOUSE:
How much did you pay for:

80.	Land	Rs. ----------	[39]
81.	Building	Rs. ----------	[42]
82.	Labour	Rs. ----------	[45]
83.	Materials	Rs. ----------	[48]
84.	Total Costs	Rs. ----------	[51]

Coding as follows:

000 Less than Rs.100	100 = Rs.10,000
001 = Rs.100	110 = Rs.11,000
002 = Rs.200	120 = Rs.12,000
etc.	etc.
010 = Rs.1,000	200 = Rs.20,000
011 = Rs.1,100	300 = Rs.30,000
012 = Rs.1,200	
etc.	etc.
035 = Rs.3,500	977 = more than Rs.99,000
075 = Rs.7,500	988 = no answer
etc.	999 = not applicable
090 = Rs.9,000	

85. How did you finance the purchase or construction of the house: [52]
1. savings local
2. savings from abroad
3. mortgage from bank/credit society
4. loan from employer, government
6. loan, from mudalali
7. loan, from relatives/friends
8. other ----------
9. notapplicable

FOR ALL OWNERS:

86. How much did you spent on maintenance or improvement of the house during the past 12 months [53-54]
Rs. ----------
Coding see question 84

87. If a home improvement loan would be available would you be interested: [55]
1. yes 2. no

88. How much would you be willing to repay every month if you got a loan: [56-57]
Rs. ----------p.m.
Code in tenth of actual amount; round to nearest Rs.10/-
00 = Less than Rs.10
01 = Rs.10 50 = Rs.500 etc.
02 = Rs.20 75 = Rs.750 etc.
03 = Rs.30 97 = Rs.950 and above
04 = Rs.40 98 = no answer
etc. 99 = not applicable
25 = Rs.250

89. If you rented out this dwelling unit how much would you be able to get for it now: [58-59]
Rs. ----------p.m.
Coding see question 88

90. How much could you sell this dwelling unit for: [60-62]
Rs. ----------
Coding see question 84

FOR TENANTS ONLY: NOT IN RELOCATION AREAS

91. Are you related to the owner of the house: [63]
1. yes 2. no
9. n.a.(owner) not applicable

92. How much rent do you pay per month: [64-65]
Rs. ----------p.m.
Coding see question 88

93. Did you pay a down payment (keymoney): [66-67]
Rs. ----------p.m.
Coding see question 88

IF NOT PAYING RENT

94. Did you ever pay rent in the past: [68]
1. yes 2. no
9. n.a.

95. Why did you stop paying :---------- [69]

See code book.

96. Do you have a rental/purchase agreement: [70]
1. yes 2. no
9. n.a.

For those sharing a housing unit with other households:

97. If you were given the opportunity would you prefer to have a separate house for your household: [71]
1. yes 2. no
9. n.a.

98. Give Reason:---------- [72]
Coding see codebook.

99. If you could get a house of your own how much would you be willing to pay per month for that [73-74]
Rs. ----------p.m.
Coding see question 88

100. How much down payment would you be willing to pay: [75-77]
Rs. ----------
Coding see question 84

[2] [80]

[1] [6]

9. EMPLOYMENT AND INCOME [7] [8] [9-12] [13]

All households in the city need money to live. People in these households get money in many different ways. Some people have full-time jobs with regular salaries; other people work only part of the time, some have both a full time and a part time job. In most households, several people (including children) do things to earn money. Please tell us what each household member does.

101. Is the head of household: [14]
1. employed (public sector)
2. employed (private sector)
3. self-employed.
4. unpaid family worker.
5. unemployed.
Reason for unemployment ----------
---

102. What is his/her occupation: [15-17]
(give detailed description of occupation) ----------

See codebook for coding

103. Where is his/her place of work: [18]
1. at home/on the plot
2. in this neighbourbood
3. in the harbor area
4. in town center (Fort, Pettah in Colombo)
5. no fixed place
6. other ----------
9. n.a. (unemployed)

104. Is this job:
1. permanent full-time
2. permanent part-time
3. temporary
4. casual
5. seasonal
9. n.a. (unemployed)

☐ 19

105. What was the income from that job last month:
Rs. ----------p.m.
Code in tenth of actual amount; Round to nearest Rs.10/-
000 = Less than Rs.10
001 = Rs.10
002 = Rs.20
etc.
010 = Rs.100
011 = Rs.110
012 = Rs.120
100 = Rs.1,000
200 = Rs.2,000
etc.
977 = Rs.9,500 and above
988 = no answer
999 = not applicable (unemployed)

☐☐☐ 22

106. Does head of household have a second occupation: (e.g. part-time work, casual work in evenings or weekends, or does he/she have a small business)
1. yes
2. no

☐ 23

107. How much did he/she earn from that last month:
Rs. ----------p.m.
Coding as question 105

☐☐☐ 26

Which other household members are earning!
Note: Give each household member the same number as in the household roster on page 2. of the questionnaire and cross-check the information on employment given there. Include absentee household members here as well.

No	Relationship to Head	Employment see quest. 85	Occupation see quest. 86	Earnings Rs./p.m.	Contribution to HH.Income Rs./p.m.

Editor only: (in office)

108 Code: Total Earnings of other Household Members Rs. ----p.m.) ☐☐☐ 29
109 Code: Total Contribution to Household Income Rs. --- p.m.) ☐☐☐ 32
Coding as question 105

Does the household regularly receive income from:

110. Rent from lodges/tenants.....Rs ----------p.m ☐☐☐ 35
111. Pension.....Rs ----------p.m ☐☐☐ 38
112. Relatives working abroad.....Rs ----------p.m ☐☐☐ 41
(Middle East Money)
113. Other income (rent, interest).....Rs ----------p.m ☐☐☐ 44

If only known on yearly basis, record yearly amount and later divide by 12.
Code as question 105

Editor Only

114. Code : Total Income from 110-113 Rs. ----------p.m. ☐☐☐ 47
115. Code : Total Household Income Rs. ----------p.m. ☐☐☐ 50
Add amounts under 105,107,109,114

116. Where do you keep your savings:
1. no savings
2. stamp scheme
3. cheetu (co-op. saving)
4. post office
5. co-operative credit society
6. bank
7. saving in jewelry
8. other---------- ☐ 51

What major consumption items do you own:

	1. Yes	2. No.	
117. Radio Casettes Television Video Recorder			☐ 52
118. Refrigerators Electric Fan Motor bikes Cookers Air conditioners Cameras			☐ 53
119. Sewing machine pushcarts Carts Push bicycles			☐ 54
120. Lorries Taxis Three-wheelers			☐ 55
121. Recently acquired:sofa sets dining room sets Livestock			☐ 56

Code the number of items each household has in each box.

E COMMUNITY PARTICIPATION

Do you or any other household member belong to any of the following types of organisations:
(For those organisations for which membership is indicated ask: Would you say that you participate in activities rarely, occasionally, frequently)

	Type of Organisation	No Member/ 0	Rarely 2	Occasion 3	Frequent 4	
122	Welfare Society					☐ 57
123	Dead-Donation Society					☐ 58
124	Sports Club					☐ 59
125	Women Society					☐ 60
126	Trade Union					☐ 61
127	Informal Credit Society					☐ 62
128	Religious Organisation					☐ 63
129	Youth Clubs					☐ 64
130	Other.....					☐ 65

131 Did you vote for the CDC election in your area:
1. yes
2. no
9. n.a. (no CDC)
☐ 66

132 Do you participate in CDC meetings:.....
Coding see question 122-130
☐ 67

133 Which do you think are the most severe problems which this community faces: (probe). Record first mentioned first
.....
.....
Coding see code book
☐☐ 69

134 Which organisations do you think are most effective in dealing with problems faced by the community: (probe)
Record first mentioned first .....
.....
.....
Poll leadership structure:.....
.....
☐☐ 71

3 ☐ 80

APPENDIX 5: UPGRADING MINIMUM STANDARDS

(b) Criteria for Layout Design

U.D.A. Planning and Building Regulations have been relaxed for Slum and Shanty Improvement areas due to the factors such as high population density, lack of amenities and services etc. To this effect, the provision of U.D.A. planning and building regulations will apply recognising the improvement areas as special project areas. Standards used for the layout designing in regularisation therefore, vary from one settlement to another. Basic parametres to decide the standards for the layout designing in regularisation are as follows :-

1. Lot sizes - Minimum site area
   Maximum site area
   Minimum width of site
2. Lot shape
3. Population density
4. Circulation system - Minimum access width
   - Minimum vehicular width
5. Land utilisation
6. Water supply system
7. Sewerage disposal system
8. Storm water drainage system
9. Refuse disposal system
10. Street lighting.

STANDARDS AND NORMS

(The minimum Standards and Norms applicable to the projects of the SLUM AND SHANTY IMPROVEMENT DIVISION are categorised by different project types.

Project types and codes used in the schedule :

1. Slum Upgrading Projects .....SU
2. Shanty Improvement Projects .....SI
3. Sites & Services Projects .....SS
4. Housing Projects .....H

(On-site or off-site relocation projects with core or complete houses)

Item	Standard	Project type
1. Wells - Private	Hume pipe well	
Public	1 well per 50 housing plots.	SI
2. Toilets- Public	1 toilet per 6 plots in blocks of 2,4,6,8 or 12 units(connected to sewer or septic tank)	SU,SI,SS
Private	1 toilet per plot (sewer or compost-pits)	SS, H
3. Water standposts	1 standpost per 10 plots	SU,SI,SS,H
4. Street lights	6 lamp-posts per acre	all
5. Garbage containers	1 per access bay of slum garden	SU
	1 per 40-50 plots	SI,SS,H
6. Access paths-Front:	6ft. minimum width including drains 8ft. preferred width.	all
Back :	4ft. minimum width including drains	all
7. Distance from plot to motorable road.	Maximum 60 meters (200ft).	all
	Preferable: 40mtrs.	all
8. Width of motorable road	10' minimum width 12' preferred.	

Item	Standard	Project type
9. Landscaping	No standard,where possible(space) 1 plant trough kept open in pavement per plot	All
10.Community building	To be provided but no standard as yet	All
11.Open space(large)	-if space allows	SI
	-no standard	SS,H
Open space (small)	-if space allows	SU
	-no standard	SS, H
	Small open spaces of different sizes(3-8 perches) and shapes to be evenly distributed.	
	Maximum distance plot-open space: 150 ft.	
	Preferable: 100 ft.	
12.Density (nett, in between motorable roads and depending on plot sizes)	Maximum 60/acres	All
	Preferable: 45/ acres	All

APPENDIX 6: UPGRADING POLICY: ALTERNATIVE COURSES OF ACTION

2. ALTERNATIVE COURSES OF ACTION

With regard to the existing housing stock - of slums and shanties - four alternative courses of action should be considered:

1. Permanent upgrading.
   Improvements to the physical, social and economic environment of the inhabitants - including land filling where necessary.

2. Temporary upgrading
   Minor improvements to be provided where the forecast life span of the slum or shanty is short.

3. Relocation on site
   Provision of improved housing within the area of the slum or shanty itself.

4. Relocation elsewhere
   Provision of improved housing at an alternative site, coupled with other supporting elements including employment and community facilities - such a site to be as close as possible to the existing location.

The principle should be adopted that, wherever possible, existing housing stock - including slums and shanties - should be upgraded rather than destroyed. This principle ensures both an optimal economic use of resources for housing, and minimises the extent of disruption to residents - for whom location is the prime benefit of their present housing.

Having identified alternative courses of action, the next step is to establish criteria to assess where upgrading should take place.

3. CRITERIA FOR IDENTIFYING AREAS SUITABLE FOR UPGRADING

Upgrading shall be considered the appropriate action in all areas except the following:

Areas liable to serious flooding - in practice, only shanty areas -

a. Those areas unprotected against river floods where land filling provides no solution to the problem.

b. Those areas where major land filling is required - i.e. on a scale larger than the shanty area itself - and there are no plans to undertake such a project.

Areas unsafe for human habitation - In practice only shanty areas -

Those areas, other than those liable to flood which for environmental reasons are unsafe for human habitation and location where provision of sewage disposal and other services is rendered impossible.

Areas of priority alternative use - slum or shanty areas -

a. Those areas where land is essentially required for an alternative, non-housing, public use approved by the appropriate planning authorities (e.g. roads).

b. Where land is required for commercial purposes, and it has a value which will allow the profit accruing to government through the removal of the residents to more than cover the cost of providing improved housing for these residents - and such housing is actually provided.

In all areas meeting the above criteria no upgrading will be undertaken. Relocation - either on site, or more commonly elsewhere - will provide the only way of improving their physical environment. In areas of priority alternative use, however, temporary upgrading will be provided to those areas where alternative plans are not immediate.

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