

INFORMATION SYSTEMS IN DISTRICT DEVELOPMENT PLANNING:
A CASE STUDY OF YILO KROBO DISTRICT, GHANA

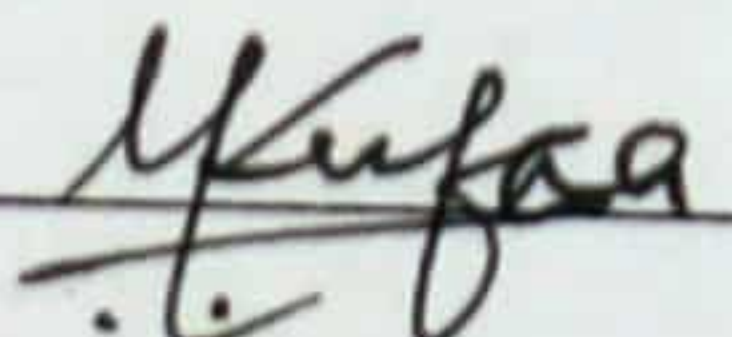
A Thesis submitted to the School of Graduate Studies,
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Degree of Master of Science in
Development Planning
and Management

By

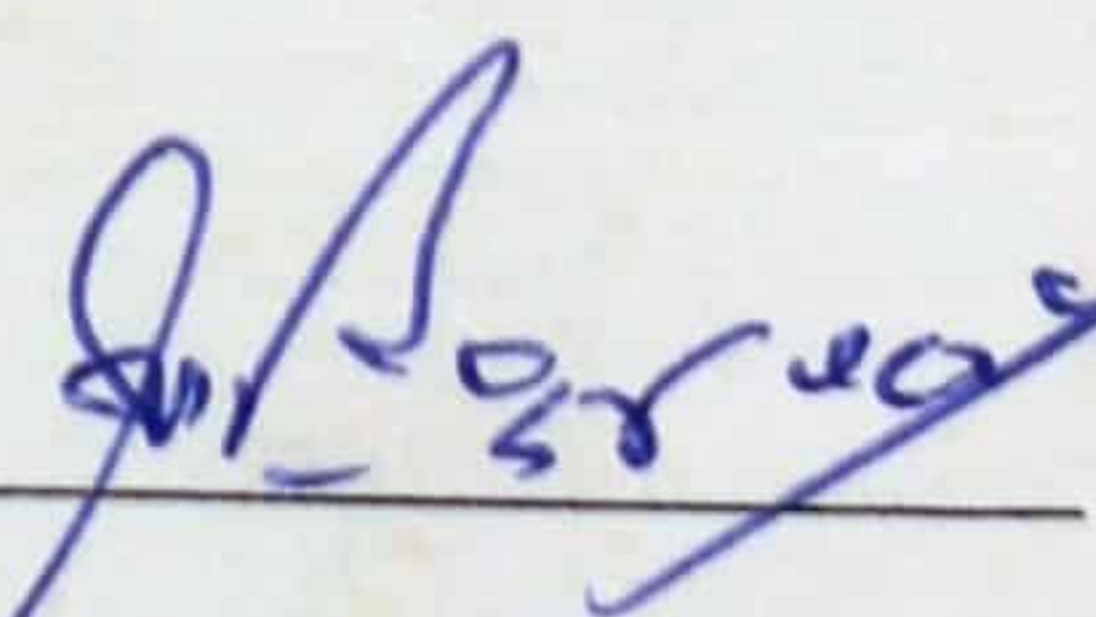
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VITA

The author was born in Namwala District of Zambia on the 30th of July 1971. He attended primary school at Burma Road primary school in Lusaka, Twateka primary school in Chingola, and Kabompo primary school in Kabompo. After successfully completing primary school in 1985, he was admitted for secondary education at Kabompo secondary school in 1986 until 1990 when he successfully passed the General Certificate of Education (GCE-O level) examinations. He was then admitted for university education at The University of Zambia in 1991 where he pursued a Bachelor of Arts (B.A) degree in Demography and Economics and was graduated in 1996.

In July 1996, he was employed by Kalomo District Council as a District Planning Officer, a position he is still holding (though on study leave). In 1999, he was awarded a scholarship by the Deutscher Akademischer Austauschdienst (DAAD) to pursue a joint Master of Science degree in Development Planning & Management at both the University of Dortmund, Germany and Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

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ABSTRACT

An information system basically joins two nodes, data generators and information users. Information is a vital resource in development planning, as it is fundamental to effective decision-making. An information system is, therefore, needed in order to provide the information required in a timely and cost-efficient way.

The Republic of Ghana has made significant efforts towards the decentralisation of decision-making and development planning to the district level at which the District Assemblies play a pivotal role. However, these District Assemblies have faced serious challenges in development planning and one such challenge has been the inadequacy of appropriate data/information for this endeavour.

On the basis of this problem, this study was undertaken mainly to identify the nature of data inadequacy at the various levels of the planning process and bottlenecks contributing to this state of affairs on which basis appropriate strategies would be made to both Local and Central Governments for necessary interventions. In order to accomplish this, Yilo Krobo District was selected as the case district mainly because it was the study district for the current SPRING Batch of students (2000/2001) in Development Workshop.

Data were collected from both primary and secondary sources. For primary data collection, samples of various institutions were taken using purposive sampling, a non-probability sampling technique. These were the District Executive Committee members of the District Assembly, The District Coordinating Director, the District Planning Officer, the District Budget Officer from the District Assembly Administration and the heads of twelve government departments now operating (or required to operate) under the District Assembly. Though the Area Councils were not interviewed at the time of the survey, information was collected during the SPRING workshop survey on institutional capacity building in the same district. During this survey, all Area Councils were interviewed and some of the information collected was related to this research and was therefore referred to during the analysis. The primary data were collected using

researcher-administered questionnaires with both structured and unstructured questions. The secondary data were collected through literature search. The data were measured at ordinal and nominal scales. After the primary data collection exercise, the raw data were processed into percentages and ranks. This formed the basis for discussion and interpretation of survey findings. Based on the methodology outlined, a number of observations were made and are presented as a summary of findings.

There is a general problem of insufficient data/information at all stages of the planning process. This is more serious at the implementation management stage where there is complete lack of meaningful data/information for providing feedback on progress in implementation.

The analysis revealed some critical problems that have contributed to this problem of insufficient data/information for district planning in Yilo Krobo. Specifically there is poor data collection, data processing, and Information management, and information dissemination methods. Additionally, there is low level of participation of stakeholders coupled with poor coordination of information subsystems in the planning process.

The following recommendations or proposals have been made to improve the existing information system for district planning in Yilo Krobo:

- Institutionalisation of data collection to make it more cost effective
- Harmonising geographical or spatial reference units for data collection
- Decentralisation of data processing to the district level
- Adopting systematic filing systems that keep information in a comprehensive manner
- Information contained in the district plans should be used to guide all development efforts in the district
- Communication of information between the DPCU and the District Assembly members should be made more user friendly by using appropriate presentation methods such as maps and charts.
- Departments should adopt logical frameworks as a tool for sectoral planning.
- The District Assembly should create a DDCC to improve the participation and co-ordination of development agencies and thereby improving information flows.

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The successful preparation and completion of this work was as a result of direct and indirect support from many.

First and foremost, I would like to express my gratitude to Dr. E. Kunfaa, who had to shed off some of his precious time from his busy schedule just to ensure that this work is a success. His advice, criticisms and encouragement were indeed an inspiration to me. To him, I say God bless you and you shall remain a friend indeed.

I would be failing in my duties as a responsible individual if I failed to appreciate the co-operation I enjoyed in Yilo Krobo from my respondents during the survey. To all assembly members, the District Co-ordinating Director, the District planning Officer and his Assistant, the District Budget Officer, the District Finance Officer and all heads of departments interviewed. Thank you and God bless you.

To my beloved wife Esther and daughter Nancy, I am very grateful for your endurance during this long period of family disruption. I love you.

To mum and dad, Mrs. E.K. Nakaanda and Mr. M.M. Nakaanda, I thank you for your encouragement and morale support rendered to me during my period of study. God bless you.

Last but not the least, my fondest gratitude to the German Academic Exchange Service (DAAD) for providing me the scholarship to pursue this course and may God bless you.

However, the contents of this report, any errors in judgement and interpretation are solely my responsibility.

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ABBREVIATIONS

CPI	Consumer Price Index
DAAD	Deutscher Akademischer Austauschdienst
DBO	District Budget Office
DCD	District Coordinating Directorate
DCE	District Chief Executive
DDCC	District Development Coordinating Committee
DFO	District Finance Office
DHA	District Health Administration
DPCU	District Planning and Coordinating Unit
EU	European Union
GES	Ghana Education Service
GoG	Government of Ghana
GTZ	German Agency for Technical Cooperation
M&E	Monitoring & Evaluation
NGO	Non-Governmental Organisation
NDPC	National Development Planning Commission
NFED	Non-Formal Education Division
NORAD	Norwegian Agency for Development
PNDCL	Patriotic National Defense Council Law
RCC	Regional Coordinating Council
SPRING	Spatial Planning for Regions in Growing Economies
SWOT	Strengths, Weaknesses, Opportunities, and Threats
UNDP	United Nations Development programme
WATSAN	Water and Sanitation

CHAPTER ONE

INTRODUCTION

1.1 Background to research

The concept of decentralization has been one of the major preoccupations of most government regimes in Ghana and this is even becoming a major priority of public policy at present. It is assumed that such a strategy will contribute significantly to the fulfilment of governance principles such as :

- Improved accountability and responsiveness of government machinery to the electorates;
- Improved management efficiency in the delivery of services to the public; and
- Increasing equity in the distribution of resources for local and national development.

In line with the above stated principles, the government of Ghana has devolved central administrative authority to the local authorities (Metropolitan, Municipal and District Assemblies). The District Assemblies are, according to the Republic of Ghana (1996: 12),

- a) Created as the pivot of administrative and developmental decision-making in the district and the basic unit of government administration;
- b) Assigned with deliberative, legislative as well as executive functions;
- c) Established as monolithic structures to which is assigned the responsibility of the totality of government to bring about integration of political, administrative and development support needed to achieve a more equitable allocation of power, wealth and geographically dispersed development in Ghana; and

- d) Constituted as planning authorities for the districts.

Based on this devolved authority, the local authorities are required to perform deliberative, legislative and executive functions as specified by Section 10 (3) of Local Government Act 462. One of the major responsibilities of the District Assemblies conferred by the same Act is for the overall development of the district and ensuring the preparation of development plans for effective mobilisation of resources in their districts.

1.2 Statement of the problem

District Assemblies, being planning authorities, are required through their District Planning and Co-ordinating Units to:

- a) Design short term, medium term, and long term development plans for the districts;
- b) Monitor and evaluate the implementation of development programmes and impacts of specific government policies on local people;
- c) Co-ordinate the development activities of other development agencies operating in the districts i.e. line agencies and Non-Governmental Organizations (NGOs); and
- d) Allocate public investment and resources among competing groups of people in various spatial areas of the districts.

However, district planning in Ghana has faced serious problems in assisting district assemblies to perform the above stated tasks. One of the major problems has been the inadequacy of appropriate data or information suitable for the various stages of the planning process.

In fact Nkrumah and Marleyn (1996) stated that the National Development Planning Systems Act Act 480 gives the District Assemblies a substantial role in the bottom-up planning strategy in Ghana. The District Assemblies are to aggregate the development inputs of sub-district structures and prioritise them into coherent plans. They acknowledge the fact that, in practice however, several hurdles are faced by the planning process and one such hurdle has been the dearth of reliable data/information and statistics required for such endeavour.

1.3 Research Objectives

The major objective of this research is to find ways of improving data/information availability and relevance for the various stages of the district development planning process.

Specifically, this study attempts to

- a) review the existing planning information system in Yilo Krobo district of Ghana with regard to current methods of data collection, processing, information management, and communication;
- b) Determine the nature of dearth of data/information at the various stages of the planning process;
- c) Identify and examine the causal factors of any inadequacy and inappropriateness of data/information for district planning and establish their relationships;
- d) Identify potentials and constraints with the existing information system in Yilo Krobo district; and
- e) give propositions for improving data/information availability and relevance for district planning.

1.4 Geographical scope of study

This study is based on a case study of Yilo Krobo District. A description of the district is presented in chapter four.

1.5 Justification of research

This study is significant and worth researching for Ghana in the light of the objectives of the Medium-Term information policy. Of major importance to this research are the following objectives (Republic of Ghana 1997: 69):

- promoting the use of improved data/information storage and retrieval management systems;
- facilitating the availability and speedy provision of accurate information/data to public and private sector decision-makers; and
- Strengthening the human and institutional capacity of public-sector information/data institutions/departments/units at the national, regional and district levels (especially Ministry of Finance, National Development Planning Commission, and District Planning and Co-ordinating Units of District Assemblies) for the collection and analysis of socio-economic data for planning and monitoring purposes.

Therefore, this study will contribute towards the attainment of these objectives at district level. As a matter of urgency, district planners need to identify efficient ways of collecting, correlating and managing information that cuts across all sectors for district development planning.

1.6 Limitations of research

The first limitation of this research is that of scope. Due to limitations in both time and

financial resources, it was not possible to analyse all the components of the information system in Yilo Krobo (that is, all the relevant institutions from whom the district planners derive some of the information required in the district planning process). Therefore only decentralised departments were selected.

The second limitation is that it was also not possible to follow up (back in the study district), any issues arising from the data collected due to constraints in time and finances.

1.7 Organisation of chapters

The chapters are organised as follows:

Chapter one comprises the introduction to the research. This defines the problem statement, research objectives, and rationale or justification of research.

Chapter two gives the conceptual and analytical framework with regard to information systems in development planning and management. Under this chapter, terms and concepts are defined and the theoretical basis of information systems given. In addition, the chapter reviews important aspects of the decentralisation policy and development planning in Ghana and implications for district development planning. The chapter ends with designs of appropriate conceptual and analytical models of information systems for district development planning.

Chapter three describes the methodology used in investigating the problem

Based on the model and methodology adopted, chapter four constitutes a review of the existing information system for district development planning in Yilo Krobo district of Ghana. This mainly highlights the results of the field survey in the study district by the researcher. Based on the results or findings of the survey, chapter five gives a summary of major findings, recommendations and conclusions of the research.

CHAPTER TWO

INFORMATION SYSTEMS IN REGIONAL DEVELOPMENT PLANNING - A CONCEPTUAL AND ANALYTICAL FRAMEWORK

2.1 Introduction

For a long time now, information has served as a very vital resource in planning and decision-making. Its value depends as much on the reliability of the data from which it is derived as on the ease with which it can be accessed. The faster we can collect and process the data to provide the information we need the more timely and valid will be the decisions we make. It is argued that the changing emphasis and the increasing complexity of development objectives and decentralisation of planning place additional considerations on our information needs.

There is, therefore, a need for a coherent framework for information systems that can provide reliable, manageable, and up-to-date information on the elements of the socio-economic system, their properties, linkages, and their dynamics. This needs to be structured according to sound methodology in order to understand and to influence such processes in a rational and systematic way. The next section provides definitions of terms and concepts.

2.2 Definitions of terms and concepts

2.2.1 Data and Information

In most cases, the terms "data" and "information" are used interchangeably. However, in strict technical sense, they mean different things. The distinction between data and information is context dependent. An example is a line manager who collects and analyses facts about the number of people dying of malaria, the number of doctors and nurses available, and the distribution of health centres in the district and presents the

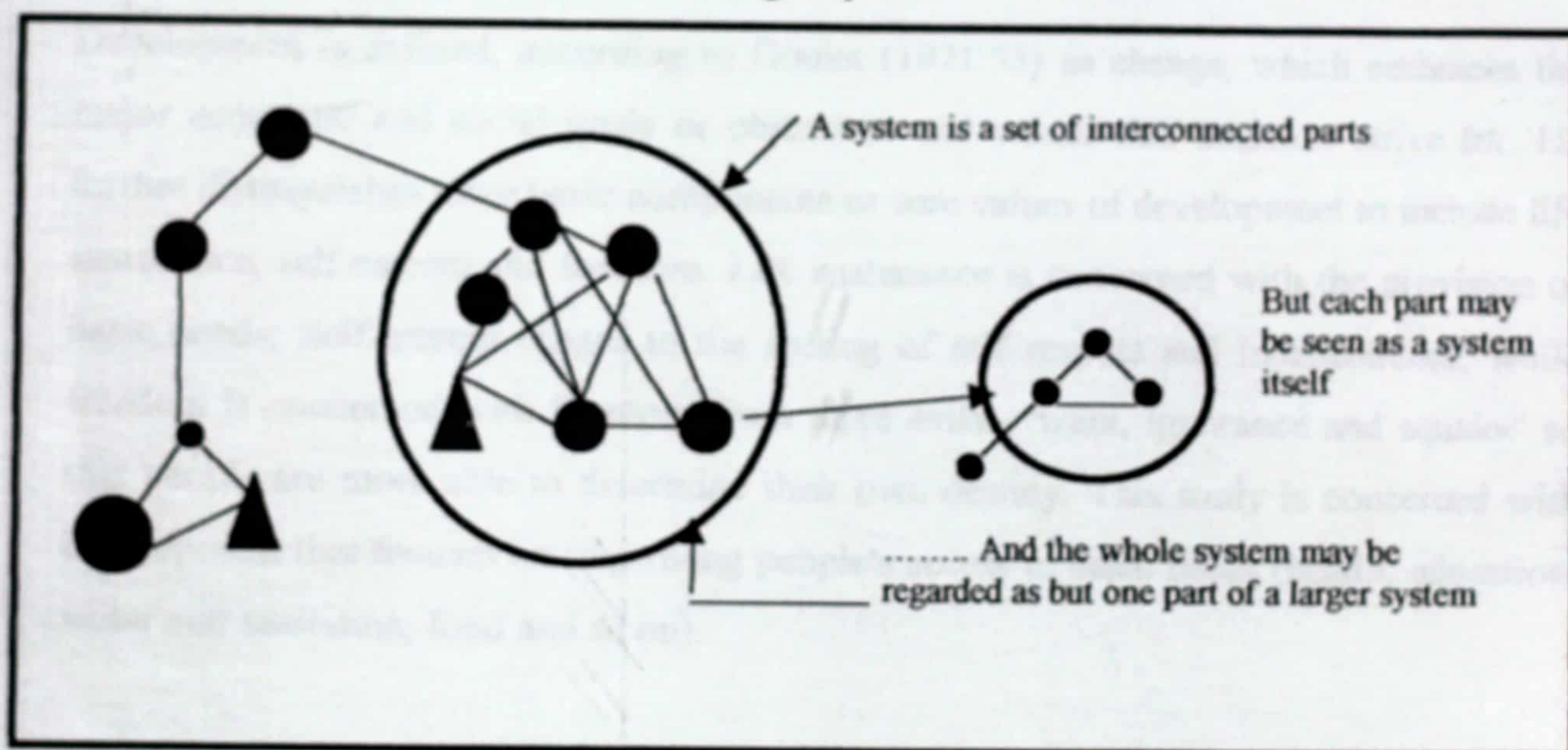
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results to the planning department. For the line manager, the results are an interpretation of events and are therefore information rather than data. They have meaning for the line manager. For the central planners, however, these figures are raw input for their own analyses, not yet interpreted, and are therefore data rather than information. Thus as Avison and Fitzgerald (1995) stated, information is such because it is relevant and understandable to some person or group. Therefore, it is because of this contextual factor that the two terms are used together in this study.

2.2.2 System(s)

A system is a set of objects together with relationships between the objects and between their attributes (Chadwick; 1971:48). This system can be viewed as part of a larger system as illustrated in figure 2.1

Figure 2.1: A system in the context of a larger system



Source: McLoughlin (1969:75)

In general, the object of a systems approach is to portray the processes and relationships between the system components, that are connected by functional, technical, institutional, or behavioural linkages and which can also be influenced by changes in parameters or controls from the environment of the system.

2.2.3 Information systems

An information system is defined as a system which assembles, stores, processes and delivers information relevant to an organisation (or to society), in such a way that the information is accessible and useful to those who wish to use it, including managers, and the public (See Buckingham et al: 1987)

The 'system' part of 'information system' represents a way of seeing the set of interacting components, such as (See Avison And Fitzgerald; 1995:1)

- People (such as system designers, data collectors, and information users)
- Objects (hardware)
- Procedures (software)

2.2.4 Development

Development is defined, according to Goulet (1971:53) as change, which embraces the major economic and social goals or objectives and values that societies strive for. He further distinguishes three basic components or core values of development to include life sustenance, self-esteem and freedom. Life sustenance is concerned with the provision of basic needs; Self-esteem relates to the feeling of self respect and independence; while freedom is concerned with freedom from three evils - 'want, ignorance and squalor' so that people are more able to determine their own destiny. This study is concerned with development that focuses on improving people's access to basic needs (health, education, water and sanitation, food and so on).

2.2.5 Development planning

Development planning involves organising scarce resources to achieve particular development objectives within a specified time period.

2.3 A systems approach to information for development planning and management

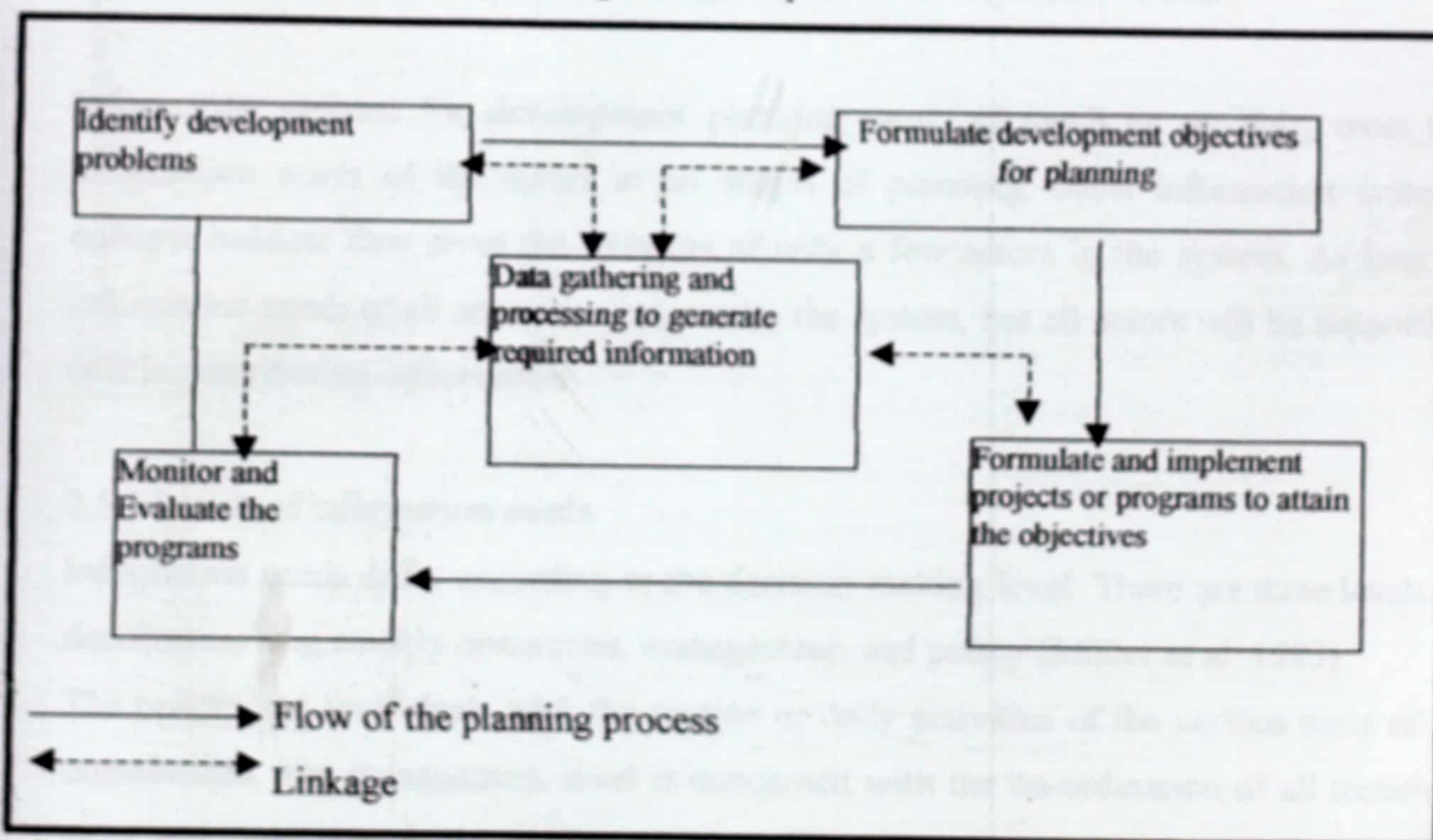
Cleland and King (1968) point out the strong influence of general systems theory, as it

had evolved in the mid-fifties, on the development of the network-based project management methodology. Based on their conception of the role of systems theory in integrated project management, one would argue that the concept is vital in development planning which seeks to achieve overall effectiveness of the development organisation, in an environment that invariably involves conflicting departmental objectives. Development planners, being systems-oriented managers of development need to realise that they can achieve the overall goals of development only by viewing the entire system. They must seek to understand and measure departmental interrelationships and to integrate them in a fashion that enables the region or district to pursue its goals.

2.4 The role of information in development planning

Information is required for plan preparation, implementation and evaluation. All purposeful action is based on the possession and use of information and planning is no exception. Information is therefore needed in order to facilitate all these processes. The interrelationship between information systems and the planning process is shown in the figure 2.2.

Figure 2.2: Information and planning relationship



Source: Based on Dias and Poudyal (1992)

Although planners assume that decision-makers like to have information to help them to make rational decisions, this is not always the case. Some decision-makers who are accustomed to making decisions on the basis of their 'judgement' sometimes resent the intrusion of information into their decision-making process and reject it or choose not to use it. Others find it embarrassing to deal with information, which goes against the decision they want to make and reject it. Therefore it would be fallacious to believe that information users would always welcome systems that would provide objective information in an efficient manner. In fact monitoring and evaluation information systems have suffered more to this problem. Even managers and planners have a tendency of not wanting to subject their programmes to evaluation for fear of exposing their weaknesses and therefore risking losing their jobs.

2.5 Information needs in regional development planning

An important aspect of information with regard to development planning is the identification of what sort of data are needed in order to provide the information required for particular planning purposes. This is very important because data can only be used to generate information for decision-making if they are the right sort of data.

Information systems for development planning must, as much as possible, meet the information needs of the actors at all stages of planning. Most information systems collapse because they serve the interests of only a few actors in the system. As long as information needs of all actors are not met by the system, not all actors will be supportive of it in contributing information.

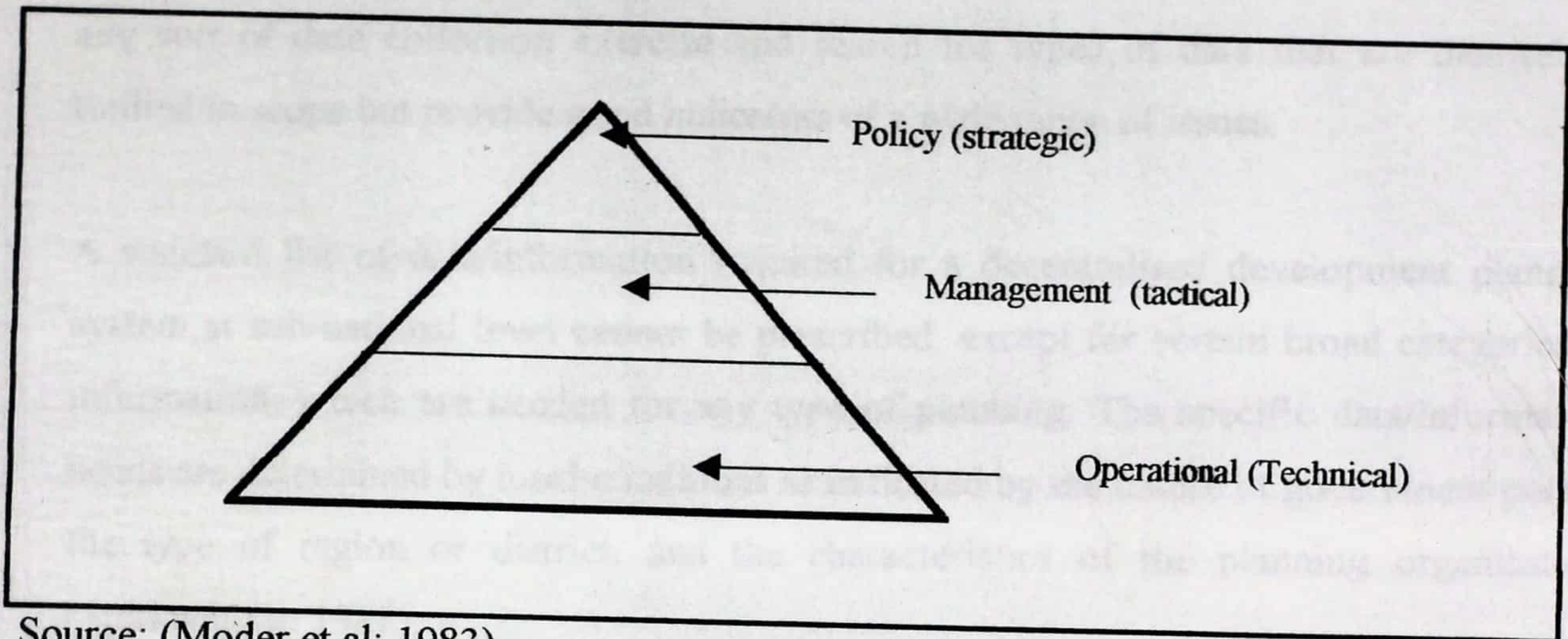
2.5.1 Levels of information needs

Information needs differ according to the decision-making level. There are three levels of decision-making namely operations, management, and policy (Moder et al: 1983)

The operational level deals with the routine or daily activities of the various units of an organisation. The management level is concerned with the co-ordination of all technical units' activities towards the attainment of organisational goals and objectives. The policy

level is concerned with strategy formulation to direct organisational operations. The three levels are presented in the figure 2.3

Figure 2.3: Levels of decision-making



Source: (Moder et al: 1983)

Therefore planners should strive to develop systems that not only improve the daily operations of government, but that can also be used by managers and policy-makers to improve decision-making, planning and policy analysis. In order to do this, system designers must be able to understand the information needs of all the levels of management or decision-making.

2.5.2 Quantity and quality of data/information

Determining how much data or information is needed and of what quality for development planning has proved to be a big problem for planners. This has led to a tendency among planners to embark on huge data collection without due regard to why the data is being collected and the purposes for which they are being collected. This results in the production of enormous plan documents, composed largely of basic data, that are merely filed away in libraries or offices and very soon serve no more useful purpose than the provision of data for historical academic pursuits (Conyers and Hills: 1984).

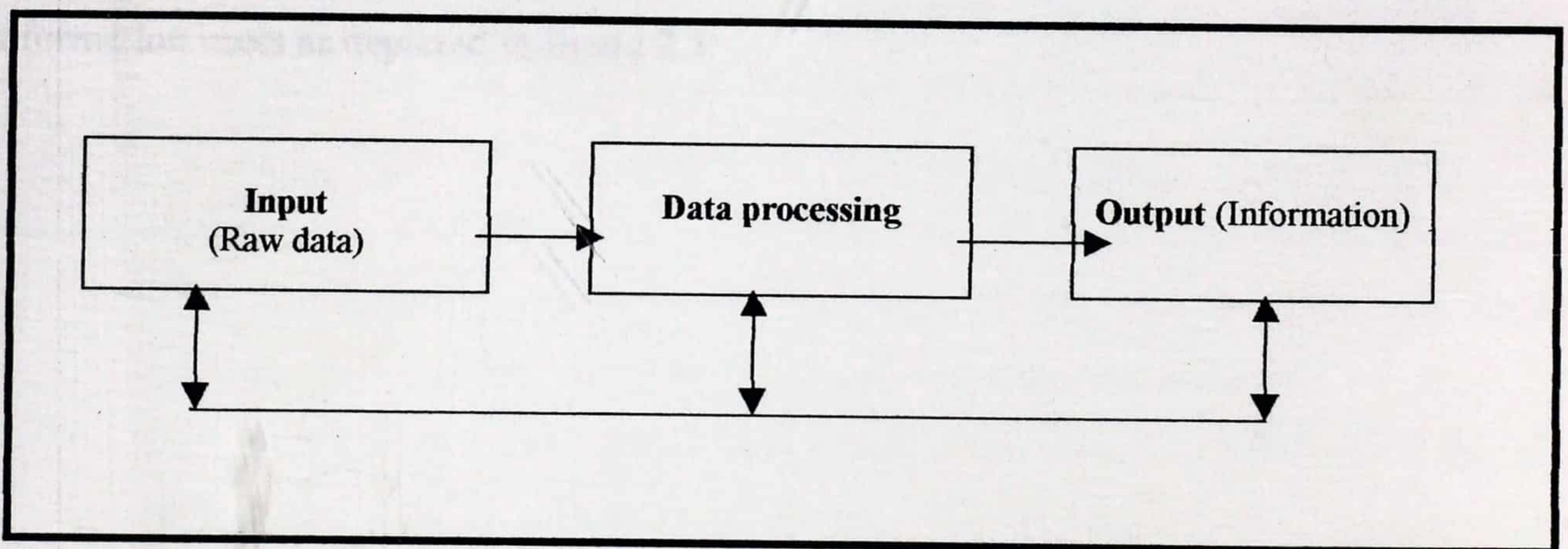
The implications of this are particularly serious in developing countries, where data collection costs are high, resources for planning are in any case limited and there is a high opportunity cost attached to the use of materials, funds and skilled manpower for this particular task. It is therefore essential that planners calculate the costs and benefits of any sort of data collection exercise and search for types of data that are themselves limited in scope but provide good indicators of a wide range of issues.

A standard list of data/information required for a decentralised development planning system at sub-national level cannot be prescribed, except for certain broad categories of information, which are needed for any type of planning. The specific data/information needs are determined by local conditions as indicated by the nature of government policy, the type of region or district, and the characteristics of the planning organisation. (Sterkenburg: 1988).

2.6 The role of information systems

Information systems are required to provide relevant information to users for decision-making. An information system is a human activity or social system, which may or may not involve the use of computer systems. An illustration of a simplified model of the structure of an information system is presented in figure 2.4.

Figure 2.4: A simple model of an Information System



Source: own construct

In all information systems data is the major input. The complexity of an information system varies depending on the amount of data required to produce the required information. It also depends on the type and nature of data and its source.

The data collected are subjected to some processes that convert it into meaningful context. Processing may be done through analysis and interpretation of data.

The processing of data produces some information that is useful in the context of the user.

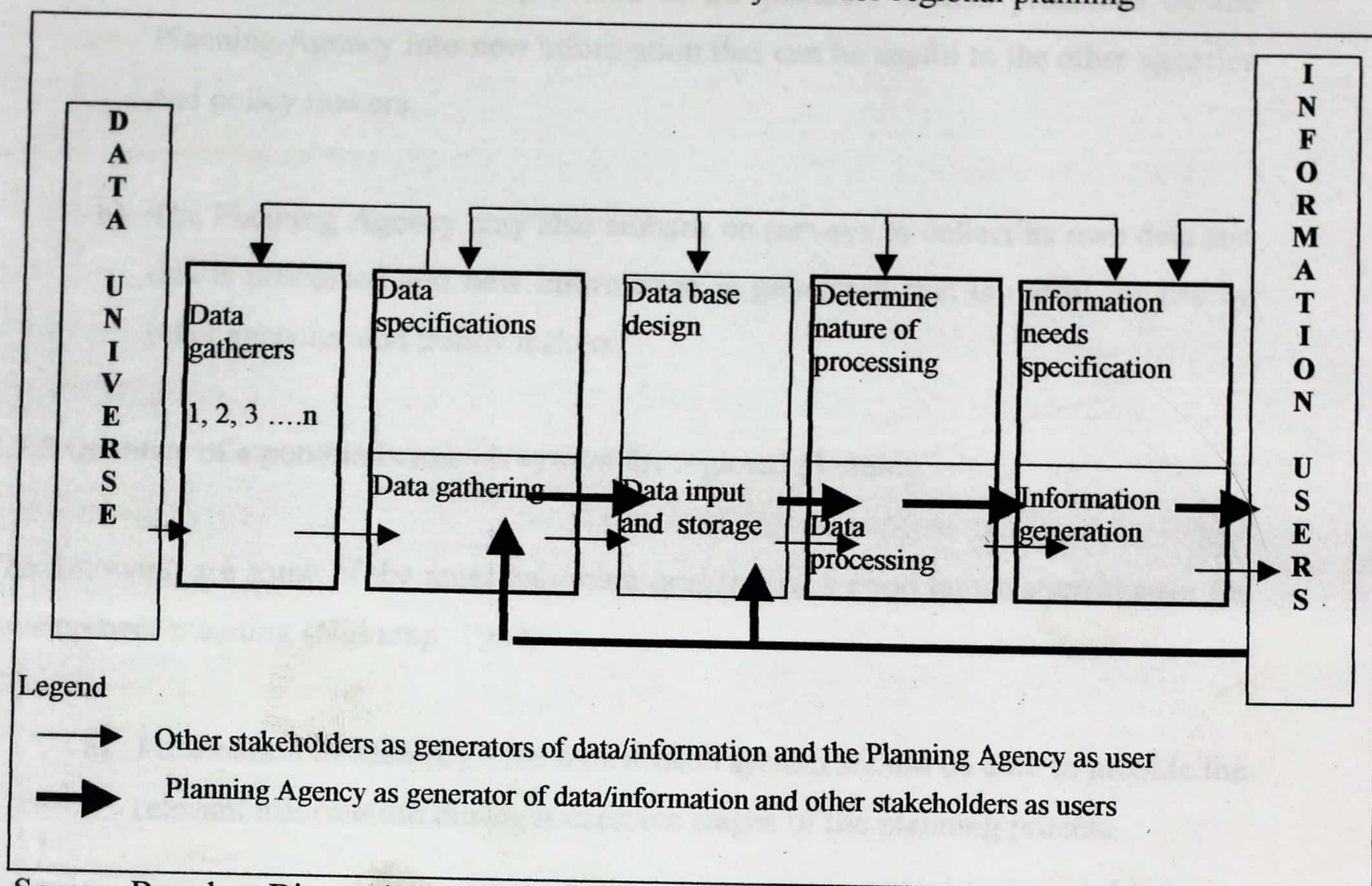
2.7 Information systems for development planning

Information systems for development planning can be conceptualised as providing a comprehensive picture of relationships between the different development agencies in terms of information sharing for purposes of planning.

2.7.1 A conceptual model for an appropriate information system for regional development planning

Basically, an information system for regional development planning seeks to link data/information generators to users. In fact it is a process of converting raw data across all sectors of district development into meaningful information for planning and decision-making. An appropriate model establishes a link between the data universe and information users as depicted in figure 2.5.

Figure 2.5: A conceptual model of an information system for regional planning



Source: Based on Dias and Poudyal (1992:8)

The model represents two kinds of relationships between system components.

- Planning Agency as a user of information generated by other agencies. In this case, planners specify their information needs on which basis the system designers determine the nature of processing required and therefore the appropriate data base design. Again based on the information needs specified, data specifications are made. On the basis of the data specifications, data gatherers (sectoral line agencies, NGOs and so forth) collect the data, process it in line with the data base design and provide the necessary information to the planners.
- Planning Agency as generator of data/information and other agencies (line agencies, NGOs and so forth) as users. There are two scenarios in this model

- a) The information that is provided to the planners is also processed by the Planning Agency into new information that can be useful to the other agencies and policy makers.
- b) The Planning Agency may also embark on surveys to collect its own data and this is processed and new information is generated that is useful for use by other agencies and policy makers.

2.7.2 Qualities of a good information system for regional planning

The following are some of the most important qualities of a good information system for development planning (Nijkamp: 1984)

- a) Information availability - the information system should be able to provide the relevant information during successive stages of the planning process
- b) Timeliness - the information should be based on recent data in order to provide a representative and up to date picture of the complex real system
- c) Information accessibility - the information should be easily accessible to its user
- d) Information relevance - the information produced should be in line with the goals of planning
- e) Information comparability - the various data should allow a comparison with other data measured at different periods or in different areas

The above mentioned conceptual model and the various qualities were analysed within the context of Ghana's decentralisation model and is thus presented in the next section.

2.8 Decentralisation policy and organisation of development planning in Ghana - Analytical Framework

The Government of Ghana's (GoG) development policy has been that of decentralising state authority and encouraging people's participation in governance. With regard to devolving power to the lower level governments, Ghana adopted a "fused" or "single hierarchy" model of decentralisation by the fusion of central government field administration with representative local government. Therefore the distinction between central and local government has, in effect, been abolished (at least by law). Through a process of institutional integration and personnel absorption, a single integrated administration or organisation has been created (Akuoko-Frimpong; in Tetteh, A.P. et al: 1996).

Basically, the policy of decentralisation in Ghana sought to vest authority for implementation of national development with the decentralised institutions and ensure that the established structures served as effective vehicles for national development.

2.8.1 The New Planning System

Act 462 and Act 480 seek to create and clearly identify political and bureaucratic bodies and assigning them with authority, responsibility and roles in ways that promote partnership in planning. The Acts also seek to identify functions, decentralise the planning system and effect integration and effectiveness in the formulation and implementation of development policies and programmes at national, regional, district and sectoral levels. They see planning as a politico-technical dialogue and process. Community participation, inter-sectoral and inter-disciplinary collaboration are integral parts of the process, and it involves continuous monitoring and evaluation of implementation to provide effective feedback.

2.8.2 The New Budgeting System

Development plans of any government or District Assembly will remain plans and not accomplishments unless they are implemented. The implementation of plans requires financing and the formal financing of plan implementation is termed "budgeting". Therefore the local government budget should be viewed as a financial expression of a plan of local government to affect a quantitative and qualitative change in the living conditions of the people in its area of jurisdiction.

Within the confines of the new budgeting system, Act 462 institutes a composite Budget, an integrated District Budget that synthesises and harmonises expenditure and revenue estimates of the programmes of all the departments of the District Assembly, as distinct from sectoral budgeting which characterises the national budgeting process. According to Act 462 Section 92, the budget for the district shall include the aggregate revenue and expenditure of all departments and organisations under the District Assembly and the District Coordinating Directorate including the annual development plans and programmes of departments and organisations under the Assembly.

2.8.3 District Assemblies as planning authorities

In Ghana Local Government Act 462 and Act 480 designate District Assemblies as planning authorities, charged with the overall development of the district. The acts further provide that local people must participate in the formulation of district development plans. The current planning process in Ghana has the following main features

- a) Planning at the district level starts with the communities' problems, goals and objectives from unit committee level through the Town/Are/Urban/Zonal councils to the district assemblies
- b) The sub-committees of the executive committee of the district assembly consider the problems and opportunities, define and prioritise and submit these to the executive committee

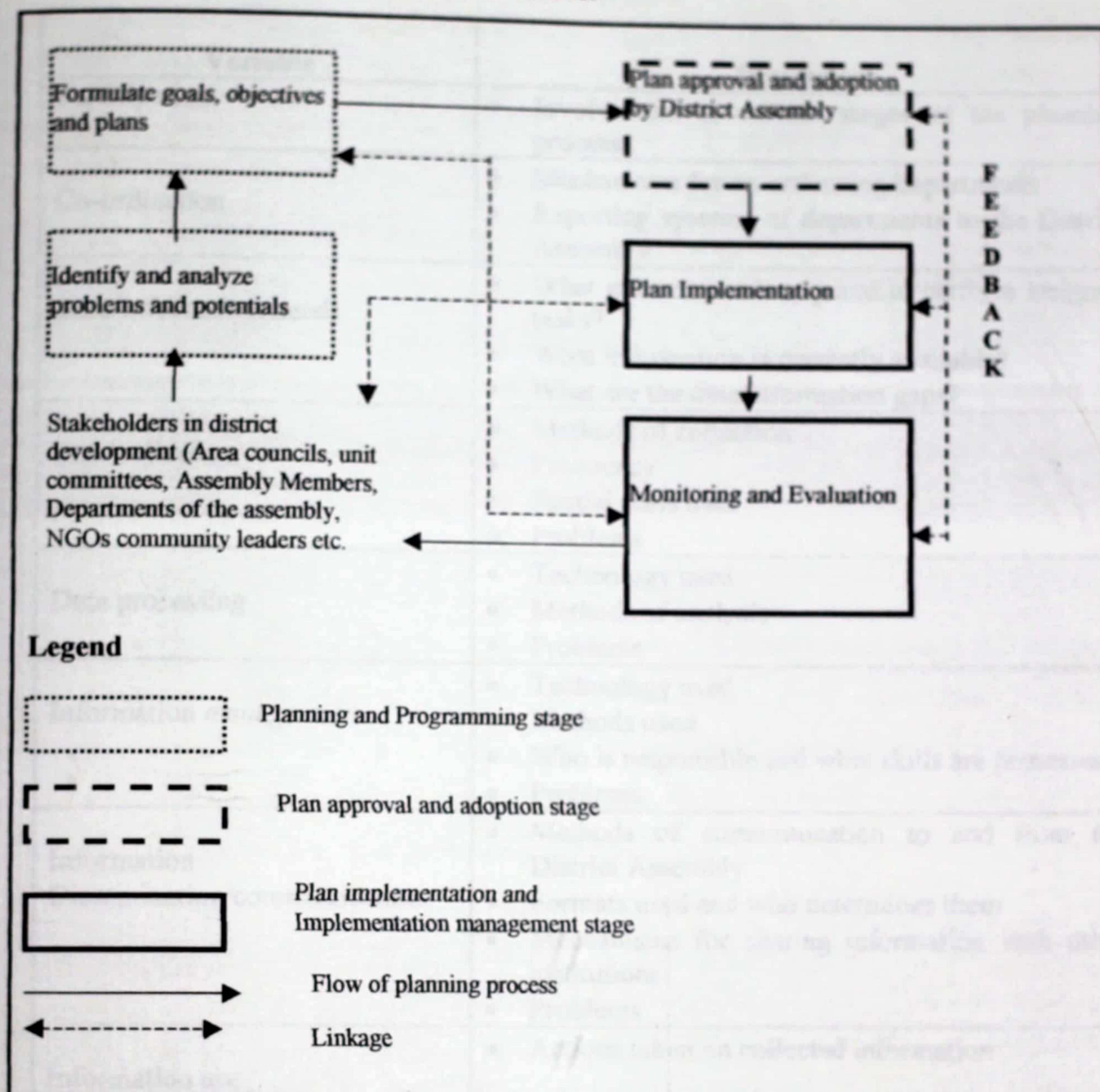
- c) The departments of the District/Municipal/Metropolitan Assembly, sectoral specialists, NGOs, and other functional agencies confer and collaborate with one another to draft sectoral plans
- d) The District Planning Co-ordinating Unit integrates and co-ordinates the district sectoral plans into long term, Medium term and short term plans and annual plans/budget for consideration of the executive committee and debate by the district assembly.

Figure 2.6 illustrates the planning process for district level planning in Ghana

There are three major implications of this planning process on information systems for district development planning in Ghana:

- The whole system has various elements or institutions that are part of it. These are the District Assembly and its administration, the DPCU, the decentralised departments, and area councils and unit committees. Each element is considered a subsystem of the whole system because within each element, there are also processes of data collection, processing, information use and management. Each element diffuses some of its information into the entire system and the value of the whole system is greater than the sum of all the elements.
- It institutes an integrated information system that should provide quality information for effective planning including continuous monitoring and evaluation of plan implementation. This information system should also be able to provide information that forms the basis for composite budgets of District Assemblies and therefore provide a linkage between the development plans and the budgets of the implementing agencies.
- The information system for district planning is a subsystem of the one at regional level and therefore it should be able to contribute to the planning information needs at regional level.

Figure 2.6: The planning process at district level



Source: Author's construct based on Local government Act 480

2.8.4 Factors influencing the quality and quantity of data/information for district development planning

There are numerous factors that influence the quality and quantity of data/information in an information system for district planning. In the context of this study, the factors considered are as shown in Table 2.1. These constituted the variables to be used to review the existing information system in Yilo Krobo District.

Table: 2.1 Analytical variables and dimensions

Variable	Dimensions
Participation	• Involvement at various stages of the planning process
Co-ordination	• Mechanisms for co-ordinating departments • Reporting systems of departments to the District Assembly
Data/Information needs	• What information is required to perform assigned tasks? • What information is currently available? • What are the data/information gaps?
Data collection	• Methods of collection • Frequency • Spatial units used • Problems
Data processing	• Technology used • Methods of analysis • Problems
Information management	• Technology used • Methods used • Who is responsible and what skills are possessed • Problems
Information Dissemination/communication	• Methods of communication to and from the District Assembly • Formats used and who determines them • Mechanisms for sharing information with other institutions • Problems
Information use	• Actions taken on collected information

Source: Own construct

Based on the conceptual and analytical models identified, an appropriate methodology was therefore developed to form a basis for reviewing the existing information system in Yilo Krobo District and is presented in the next chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The underlying principle or hypothesis of this research is that effective and efficient information systems are one of the preconditions for realistic and effective development planning. In other words all planning exercises in any field are based on information that is collected from various sources. The purpose of this chapter is to describe comprehensively the methodology used in this study.

3.2 Research design

This research is based on the case study. A case study is defined according to Mugenda and Mugenda (1999:173) as "an in-depth investigation of an individual, group, institution, or phenomenon. It is based on the premise that a case can be located that is typical of many other cases". In this case, the case under investigation is viewed as an example of a class of events or group of individuals.

Therefore this research design was adopted to determine the factors and relationships among the factors that influence the effectiveness of an information system for district development planning in a developing country like Ghana by making a detailed examination of a single unit – the Yilo Krobo district.

Yilo Krobo was selected as the study district mainly because it was the district used by the current batch of students for development workshop on institutional capacity building for district development. This provided an opportunity for the researcher to become familiar with the district and its development agencies. In addition, the results of the development workshop provided an input into this study like data from the sub-district institutions (area/town councils and unit committees) that are part of this study also. This made it easier for the researcher to access some of the relevant data without having to

collect the data all over again.

3.3 Unit of analysis

The unit of analysis, also called the unit of statistical analysis refers to those units that are described for the purpose of aggregating their characteristics in order to describe some larger group or abstract phenomenon. Units of analysis are therefore the individual units about which or whom descriptive or explanatory statements are to be made.

In this study, the units of analysis are the District Assembly, District Assembly Administration, decentralised departments, Town/Area councils and unit committees. The rationale for selecting these as units of analysis is that they play key roles in the planning process and therefore important components of the information system for district planning. The specific rationale for selection of each unit of analysis is presented in the table 3.1

Table 3.1: Units of analysis

Unit of analysis	Rationale
District Executive Committee	It has executive powers of the District Assembly and is responsible for supervising the implementation of District Assembly resolutions
District Co-ordinating Directorate	Is responsible for the overall co-ordination of development agencies in the district
District Planning & Co-ordinating Unit	Is responsible for the co-ordination of the entire district planning process
District Budget Office	Is responsible for co-ordination of the budgeting process
District Finance Office	Is responsible for revenues and expenditures of the District Assembly
Decentralised departments	Are responsible for the implementation of District Development Plans
Town/Area councils	Are responsible for sub-district planning

Source: Own construct

Therefore all these institutions have a bearing on the performance of an information system for district planning by virtue of the roles they play as stated in the table.

3.4 Unit of inquiry

A unit of inquiry is the subject, object, item or entity from which we measure the characteristic or obtain the data required in the research study (Mugenda and Mugenda; 1999:15). The units of inquiry for this study and sampling methods are presented in the table 3.2.

Table 3.2 Units of inquiry and sampling method

Unit of Analysis	Unit of observation	Sampling method
District Executive Committee	Committee members	Purposive
District Co-ordinating Directorate	District Co-ordinating Director	Purposive
District Planning & Co-ordinating Unit	District Planning Officer	Purposive
District Budget Office	District Budget Officer	Purposive
District Finance Office	District Finance Officer	Purposive
Decentralised departments	Department heads	Purposive
Town/Area councils and Unit committees	Committee members	Purposive

Source: Own construct

3.5 Sources of data and instruments

The data used in this research were obtained from both primary and secondary sources.

Primary sources included fieldwork in Yilo Krobo district where the researcher

conducted a survey. This data was collected using questionnaires with both close and open-ended questions administered by the researcher. In addition, direct observation and archival inspection were used.

Secondary sources included research reports, books and government documents such as Local Government Acts, The New Local Government System, Ghana Vision 2020, and the Medium Term Development Plan (1996-2000). This type of data was collected through literature search and reveal.

3.6 Reliability and Validity of data

Data reliability refers to the extent to which the results of the survey are consistent using the same instrument and respondents. In other words, data are reliable if the same people are asked the same questions again, they will give the same answers. (Mugenda and Mugenda: *ibid*)

Reliability of data in this research is assured for the following reasons:

- The designed questionnaires were pre-tested with a few respondents in the study district during the last visit of the SPRING students on workshop assignment (of which the researcher was part). It was realised that some questions were vague and difficult for the respondents to comprehend. The respondents also gave some useful comments on the questions and were seriously considered. Based on this the questionnaires were reviewed and improved accordingly.
- The questionnaires were administered by the researcher, which reduced the problem of respondents misunderstanding the questions. However, researcher's in-built biases cannot be completely ruled out but were minimal.
- Data were collected from multiple sources such as interviews, direct observation, cross-questioning to verify certain facts, and secondary sources.

Validity of data is the accuracy and meaningfulness of inferences, which are based on the research results. In other words, validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study. Two types of validity were distinguished in this study – construct and content validity

Construct validity is a measure of the degree to which data obtained from an instrument meaningfully and accurately reflects or represents a theoretical concept.

Content validity is a measure of the degree to which data obtained from an instrument meaningfully and accurately represents a specific domain of indicators or content of a particular concept.

In this study, both construct and content validity are assured by the fact that questionnaires were drawn on the basis of theories, concepts, and analytical frames adopted in the second chapter of this report. Questions for inclusion in the questionnaires were based on variables defined in the conceptual and analytical frameworks.

3.7 Data analysis

Before data could be analysed, the researcher had to process it by tallying responses, which gave aggregates of responses. The aggregates were then presented as percentages that formed the basis for analysis and discussion.

The data was measured using nominal and ordinal scales.

Since the analysis was based on reliable and valid data, it can be concluded that the reliability and validity of findings and recommendations is safely assured.

CHAPTER FOUR

THE EXISTING INFORMATION SYSTEM FOR DISTRICT DEVELOPMENT PLANNING IN YILO KROBO DISTRICT

4.1 Introduction

This section is an attempt to present the basic characteristics of the study district in order to put the study into geographical context. It describes the characteristics of the district in terms of its location and physical area, topography, climate, population, Post and telecommunications. Thereafter, an overview of the organisational set-up of local government and the major development problems and objectives of Yilo Krobo district are given.

4.2 District profile

The aspects of the district profile that have an influence on the information system for district planning are presented.

4.2.1 Location and size

The Yilo Krobo District is one of the fifteen districts in the Eastern Region of Ghana. It lies approximately between latitude $6^{\circ} 00' N$ and $6^{\circ} 30' N$ and between longitude $0^{\circ} 30' W$ and $1^{\circ} 00' W$. It covers an estimated area of 805 square kilometres, constituting 4.2 percent of the total area of the Eastern Region. The district is bounded in the north and east by Manya Krobo District, in the south by Akwapim North and Dangme Districts and on the west by New Juaben, East Akim and Fanteakwa districts.

The district has about two hundred settlements out of which only the district capital (Somanya) has a population above 5,000. The district is divided into seven area councils, namely Somanya, Oterkpolu, Boti, Nkurakan, Nsutapong, Klo-Agogo and Obawale. See

Appendix 4.1 for maps of Yilo Krobo in national, regional and district contexts.

4.2.2 Topography

The area is predominantly mountainous. The Akwapim Ranges stretch into the district from southwest to northeast across the district. With its accompanying deep valleys, it provides an undulating landscape. The low lands are the southeastern part of the district. The mountainous terrain poses a lot of difficulties in communication between the district and the sub-district levels. Not all areas are easily accessible and vital information for planning is poorly transmitted between the two levels because neither the district staff nor the community members find it easy to get to the other level.

4.2.3 Population

The total population of Yilo Krobo district in the year 2000 was estimated at 118,880 with a growth rate of 2.3 percent. The population density in the same year was 147 persons/ square Kilometres. More than 77 percent of the total population lives in rural areas and this implies that the appropriate information system for district planning should be spatially sensitive.

4.2.4 Post and Telecommunication

There is only one post office in the district located at Somanya. There are two postal agencies at Huhunya and Obawale. This limits smooth flow of information between the District Administration and those other settlements without any postal services at sub-district levels.

There are only two private communication centres with telephone facilities in the district. Both of them are located at Somanya and their reception is very poor. The District Assembly has a Motorola facility. The problem of telecommunication facilities makes it very difficult for institutions at district level to communicate with the higher levels

(regional and national) and therefore transmission of vital planning information between the levels is hampered.

4.3 District development problems and objectives

Information systems for district development planning seek to address the planning or development problems of districts. Therefore, in order to identify what sort of information is required to be captured in an information system for district planning, it is imperative to get an overview of the priority development problems of that particular district. The following are the main development problems in Yilo Krobo district (Adopted from the Yilo Krobo district Medium Term Development Plan 2001-2005).

Sector/Theme	Problem	Objective
Population	• High population growth • High unemployment rate	• To reduce population growth • Reduce unemployment rate
Education	• Low enrolment levels • Shortage of teachers especially in rural areas • High drop-out levels	• Increase enrolment levels • Reduce pupil-teacher ratios at all levels
Water supply	• Poor access to water facilities especially in rural areas	• Increase access to reliable and adequate water supply
Power	• High poverty levels	• Reduce poverty levels
Agriculture	• Low agricultural production • Poor access to inputs and extension services • Poor access of farmers to extension services	• Increase agricultural production • Increase farmer access to extension services
Industry	• Low level of industrial production • Poor access of Small and Medium Scale enterprises to credit facilities	• Increase SME production • Improve SME access to credit
Energy	• Unreliable electricity supply	• Improve electrical power supply

Source: Yilo Krobo Medium Term Development Plan (2001-2005)

Table 4.1: Major development problems and objectives of Yilo Krobo District

Sector/theme	Problem	Objectives
Population	• High pressure on land • High level of unemployment • High economic dependency ration	• To reduce population growth • Reduce unemployment rate
Health	• Poor access to health services • High incidence of malaria • High incidence of HIV AIDS	• Improve physical access to health facilities/services • Reduce incidence of malaria • Reduce incidence of HIV AIDS
Education	• Poor access to educational facilities • High school drop out rate • Low enrolment levels • Shortage of teachers especially in rural areas • High illiteracy levels	• Improve physical access to educational facilities • Reduce school dropout rate • Increase enrolment levels • Reduce pupil/teacher ratios at all levels
Water supply	• Poor access to water facilities especially in rural areas	• Increase access to reliable and safe water supply
Poverty	• High poverty levels	• Reduce poverty levels
Agriculture	• Low agricultural production • Poor access of farmers to agricultural inputs • Poor access of farmers to extension services	• Increase agricultural production • Increase farmer access to extension services
Industry	• Low level of industrial production • Poor access of Small and Medium Scale enterprises (SMEs) to capital	• Increase SME production • Improve SME access to capital
Energy	Unreliable electrical power supply	• Improve electrical power supply

Source: Yilo Krobo Medium Term District Development Plan (2000 - 2005)

The high poverty levels and poor access to social services points to the need for information on people's access to basic needs. This can help planners in monitoring programme performance for alleviating the poverty situation in the district.

4.4 Structure Of Local Government

The structure of local government has a bearing on the strength and direction of information flows. The established chains of command dictate the frequency and nature of information flows within the administrative system.

4.4.1 District Assembly

The District Assembly is the highest political authority in the district. It is the main institution through which all other development agencies operating in the district are co-ordinated. The District Assembly consists of the District Chief Executive, 36 elected assembly members representing 36 electoral areas, a local Member of Parliament representing the district as a constituency, and one-third of total membership appointed by the President.

The District Assembly operates through its sub-committees in performing its functions. These are the Executive Committee, and its subsidiary committees of Development Planning, Social Services, Works, Finance and Administration, and Justice and Security.

4.4.1.1 The Executive Committee

This committee performs the executive functions of the Assembly and presided over by the District Chief Executive (DCE). It consists of a total of 11 members (one-third of total assembly membership). Its major functions are to:

- Implement resolutions of the District Assembly;
- Co-ordinate plans and programmes of sub-committees and submit these as comprehensive plans of action to the District Assembly; and
- Recommend to the District Assembly the co-ordination, integration and harmonisation of district development plans and policies.

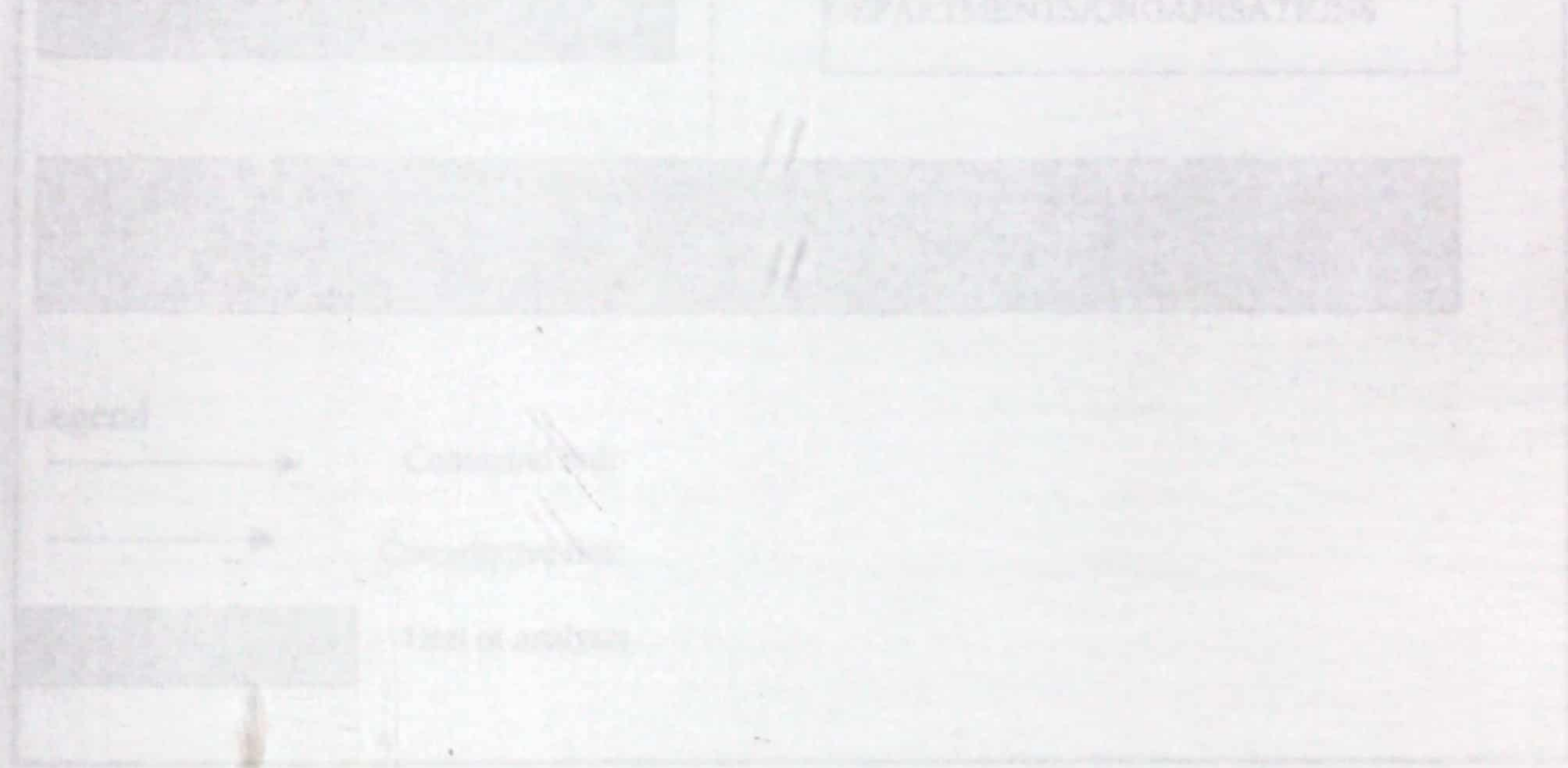
4.4.2 Decentralised departments

Act 462 establishes a total of 11 departments under the District Assemblies. District Assemblies also have responsibilities under the PNDCL 327 for the preparation, administration and control of budgetary allocations of the decentralised departments. This has implications for the structure, personnel arrangements and channels of communication and more importantly information flows among the departments. See Appendix 4.2 for the list of decentralised departments of the District Assembly.

4.4.3 Sub-district political/administrative structures

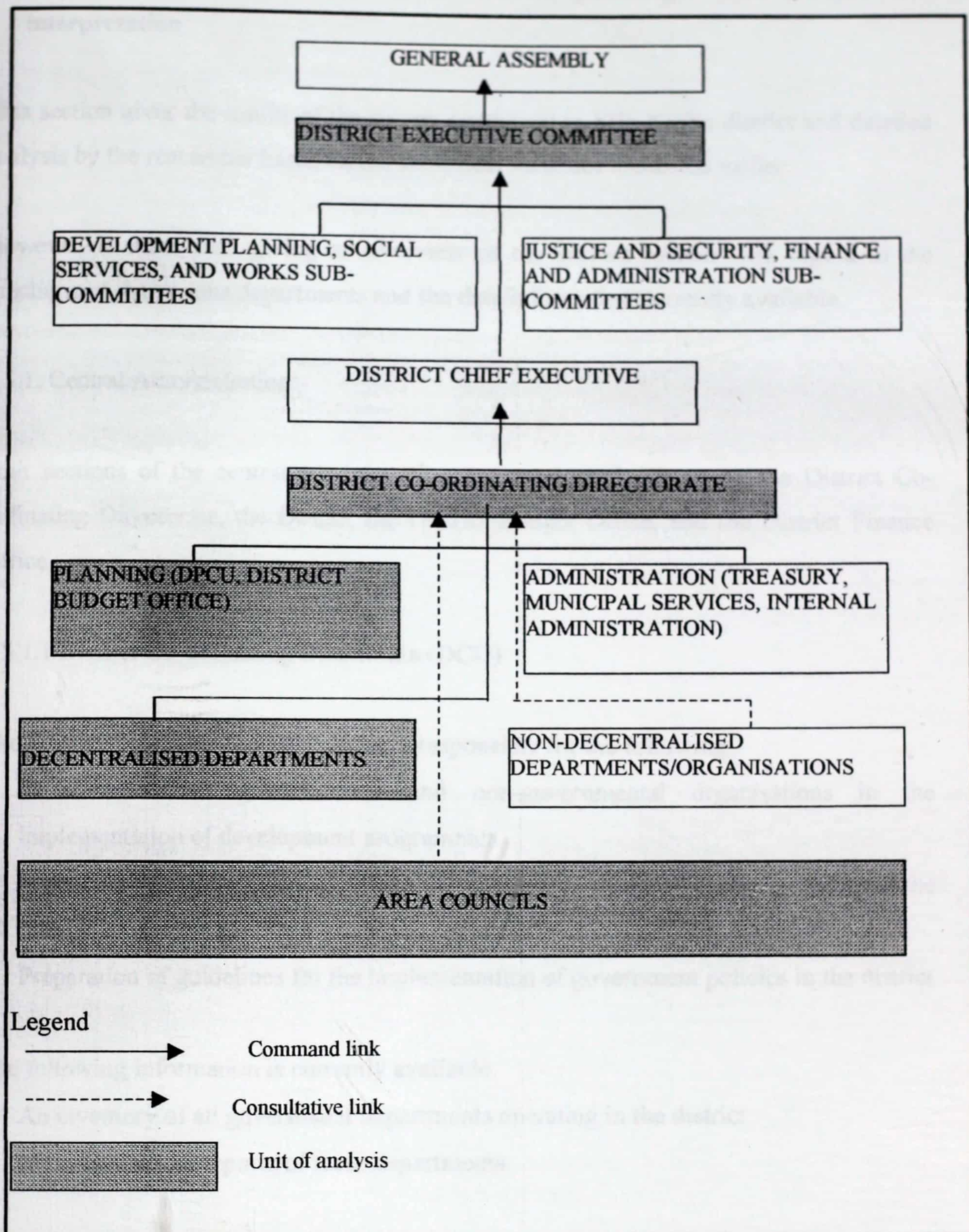
These are subordinate bodies of the District Assembly and perform functions assigned to them by the Instruments setting up the Assemblies or delegated to them by the Assembly. These are Town/Area Councils and Unit Committees. Basically these structures are rallying points of local enthusiasm in support of the development objectives of the District Assembly.

Figure 4.1 shows the organisational structure of the Yilo Krobo District Administration.



Source: Based on Acts 462 and 463

Figure 4.1: Structure of local government for Yilo Krobo District Assembly



Source: Based on Acts 462 and 480

4.5 The existing information system for district planning - data analysis and interpretation

This section gives the results of the survey conducted in Yilo Krobo district and detailed analysis by the researcher based on the analytical variables identified earlier.

However, it starts with giving an overview of the current system with regard to the functions of the various departments and the data/information currently available.

4.5.1. Central Administration

Four sections of the central administration are considered. These are the District Co-ordinating Directorate, the DPCU, the District Budget Office, and the District Finance Office.

4.5.1.1 District Co-ordinating Directorate (DCD)

The District Co-ordinating Directorate is responsible for the following:

- Co-ordination of governmental and non-governmental organisations in the implementation of development programmes
- Mobilising resources (human, financial and material) for the development of the district
- Preparation of guidelines for the implementation of government policies in the district

The following information is currently available:

- An inventory of all government departments operating in the district
- Action plans and reports of these departments

4.5.1.2 District Planning & Co-ordinating Unit (DPCU)

The unit is responsible for the following:

- Co-ordinate the preparation and consolidation of district short, medium and long term

plans

- Monitoring & Evaluation of district development programmes
- Establishing and maintaining a district development data base

The following information is available:

- Maps showing distribution of socio-economic facilities in the district
- District total population size and distribution
- District development plans

4.5.1.3 District Budget Office (DBO)

This office is responsible for co-ordination of the district development budgeting process. In this context this office plays a strategic role in linking the budgeting process to that of planning by working in close collaboration of the DPCU.

The office has limited information on the budget allocation to development projects by the District Assembly

4.5.1.4 District Finance Office (DFO)

The office is responsible for all the financial matters (receipts and expenditures) of the District assembly. It has information on the rateable property, tax base, and current revenue sources.

4.5.2 District Assembly departments

4.5.2.1 Information Services Department

This department is responsible for disseminating information to the public

4.5.2.2 Ghana Education Service (G.E.S)

Responsible for

- Providing educational services to the school going aged population in the district

- Monitoring and supervision of the implementation of government education policy
- Administration of the day to day running of the education service in the district

Information available

- Number of schools in the district
- Enrolment levels
- Dropout rates
- Number of teachers in the district
- Pupil/Teacher ratios

4.5.2.3 Statistical Service

Responsible for collecting data for development purposes.

The only information available is market statistics (for computing CPI), total population size, and regional and national level indicators.

4.5.2.4 Town & Country Planning

This department is responsible for

- Monitoring and controlling land-use in the district
- Preparing layout plans for prospective land developers
- Advise the District Assembly and other departments on all matters related to land-use planning in the district

The following information is available

- Site plans
- Base maps
- Location of infrastructure facilities in the district

4.5.2.5 Department of Agriculture

Responsible for

- Providing extension services to the farmers in the district
- Providing technical backstopping to farmers for improved and increased agricultural

production

Information available

- Level of agricultural production by type of crop or produce
- Number of farmers by type of crop/livestock
- Most suitable areas for production of specific crops
- Prevailing livestock and crop diseases
- Number of extension officers in the district

4.5.2.6 District Health Administration (DHA)

The department is responsible for the following

- Providing preventive and curative health care services to the district population
- Controlling epidemic outbreaks in the district

Available information

- Major diseases in the district
- Number of sub-district catchment areas and their staffing levels

4.5.2.7 Forestry Department

Responsible for the

- preservation of forest resources in the district
- control the exploitation of forest resources in the district

Information available

- Land area under forest reserve (as maps)

4.5.2.8 Department of Social Welfare

Responsible for identifying and assisting vulnerable groups of people in the district and the office has information on reported cases of child and Wife abuse, victims of law and even destitute.

4.5.2.9 Department of Community Development

Responsible for

- Promoting self-help community projects
- Adult Education (literacy)

4.5.2.10 Non-Formal Education Division (NFED)

Responsible for

- Educating adults through awareness campaigns
- Training of adults in small business development

4.5.2.11 District Youth Co-ordinating Unit (National Youth Council)

Responsible for

- Registration of youth associations
- Initiating and designing youth programmes in the district
- Mobilise resources for the implementation of the programmes
- Recommend recruitment to Youth Leadership Training Institute

Information available

- Inventory of registered youth associations in the district

4.5.2.12 Births and Deaths Registry

Responsible for the registration of births and deaths in the district and the only information available is the births and deaths register.

4.6 Methods of data collection, processing and storage, information management and communication - Decentralised departments

4.6.1 Data collection

Data/information should be gathered in view of the specific information needs of the users otherwise the information is useless and a waste of scarce resources.

In the district, the most common methods of data collection are Surveys, reports from

extension staff or agents, direct/verbal reports from communities, and consultations from other departments.

The table depicts the situation with regard to data collection methods used by the sampled decentralised departments in Yilo Krobo District

Table 4.2: Data collection methods of departments in Yilo Krobo District

Method of data collection	Frequency	Percent
Surveys	2	17
Reports from extension staff	5	41
Direct/verbal from clients	3	25
Consultations with departments	2	17
Total	12	100

Source: Field Survey, 2001

As the table shows, the major sources of data for the departments are reports from extension staff and direct reports from clients or target groups, together constituting about 67 percent of the sampled departments. Surveys are not often used because they are too expensive to conduct. Inter-institutional collaboration in data collection is not exploited representing only 17 percent of all the sources.

It was observed that those departments without extension staff or agents at sub-district level depended on members of the communities visiting the office like in the case of Departments of Births & Deaths Registry and Social Welfare. The result is that those areas outside the township (Somanya) are not covered due to difficulties in communication with the district office and thereby leading to underreporting of statistics for planning. Table 4.3 summarises the major problems associated with data collection in Yilo Krobo district.

Table 4.3: Problems of departments in data collection

Problem	Rank						Total Score (S)	Rank
	1 (w= 3)		2 (w=2)		3 (w=1)			
	f	s	F	s	f	S		
Lack of transport	7	21	2	4	2	2	27	1
Inadequate staff	-	-	7	14	-	-	14	3
Poor inter-institutional collaboration	3	9	2	4	2	2	15	2
Poor terrain	-	-	1	1	-	-	1	5
Data/cases lost to other districts	1	3	-	-	-	-	3	4

Source: Field survey, 2001

Rank 1=most important, 2=moderately important, 3=least important

Weight, $w = 3$ for rank 1, $w = 2$ for rank 2, and $w = 1$ for rank 3

Score, $s = \text{frequency, } f * w$

Total score, $S = (f * w) + (f * w) + (f * w)$

As depicted in the table, the three most critical problems of departments in data collection are:

- Inadequate or lack of transport for mobility in collecting the required data
- Poor inter-institutional collaboration in data sharing
- Inadequate staff to go out and collect the required data

4.6.2 Data processing

The input data are processed on the basis of specifications laid down by users to meet their information needs. It is designed to answer queries which planners must answer to make their decisions. As these decisions must be made at various stages of the planning process, the processing must be done in the context of those decision criteria and

sequence of activities to be followed in planning. Analysis of the data is done using different techniques ranging from simple additions and subtractions, percentages, charts and graphs to more complex techniques such as regression, correlation, significance tests and so forth. The results of the survey in relation to data processing methods are shown in table 4.4

Table 4.4: Data processing methods of decentralised departments

Method of processing	Frequency	Percent
Percentages, additions and subtractions	6	50
Graphs and charts	2	17
No analysis done	4	33
Total	12	100

Source: Field survey, 2001

From the survey, it was revealed that all the departments were using analogue or manual methods for processing of data. With regard to tools of analysis, most of the departments were using simple percentages and additions. Only two departments – District Health Administration (DHA) and Ghana Education Service (GES) were using graphs and charts. From this data, one can say that most departments do not actually subject their data to rigorous analysis with the major reason being that analysis is highly centralised at regional and national levels. However the need for analytical information for decision-making by the District Assembly cannot be overemphasised.

The problems associated with the processing of data at district level are summarised in the table 4.5:

Table 4.5: Problems of departments in data processing

Problem	Rank						Total Score (S)	Rank
	1 (w= 3)		2 (w=2)		3 (w=1)			
	f	s	F	s	f	s		
Centralised processing	2	6	2	4	1	1	11	3
Lack of skilled staff	4	12	2	4	1	1	17	2
Lack of appropriate facilities/technology	5	15	4	8	3	3	26	1

Source: Field survey, 2001

Note: Symbols used are as defined in table 4.3

It is evident from the table that most departments lack the appropriate facilities and technologies for processing of the data. Simple equipment such as calculators, drawing pens, stationery and so forth are lacking in these departments. The absence of basic facilities such as these only adds to the problem of having to use manual techniques that are too tedious to motivate staff.

Second, there is a general problem of inadequacy of appropriate processing skills. Realising the fact that most heads of departments are degree and diploma holders, one would have expected them to be conversant with general statistical techniques for data processing and analysis.

Third, the processing of data is too centralised at national level that makes district and regions mere data gatherers for their superiors in Accra where detailed analysis is done. The District Statistical Officer reiterated this point.

“We just gather data for them and they do the processing and analysis”.

This may explain the second point made that there are inadequate skills to process the data. Even though the officers of these departments may have the required skills for processing of data, they seem to have no motivation to do so because no one requires

them to do that. The District Social Welfare Officer had this to say:

“They (District Assembly, Region and national level officials) don’t seem to be interested in detailed analytical data”

In other words there appears to be no demand for processed data and therefore they just report numbers without any interpretations to them.

4.6.3 Information management

The generated information requires management and information management involves the storage and retrieval of generated information. It requires systematic creation and storage of information files (whether by computer or analogue systems) in order to allow for easy and constant retrieval of information and updating. Poor Information Management Systems (IMS) reduce the effectiveness of information systems.

From the survey, it was observed that all the departments sampled used analogue or manual methods of information storage and retrieval – hard files. By physical inspection, it was observed that only 4 out of the 12 departments (33 percent) kept their files in a systematic manner with the remaining 67 percent keeping theirs in unsystematic ways. For those keeping their files in disorderly manner, they located the files for retrieval using “divine” methods, that is, the responsible officer(s) having to memorise the location of each file whenever required. In most cases, retrieving the files in this manner has proved a difficult and costly task. Table 4.6 depicts the problems associated with information management

Table 4.6: Problems of departments in information management

Problem	Rank						Total Score (S)	Rank
	1 (w= 3)		2 (w=2)		3 (w=1)			
	f	s	F	s	f	s		
Inadequate storage space	2	6	-	-	-	-	6	5
Inadequate/poor storage facilities	4	12	2	4	1	1	17	1
Inadequate filling materials	3	9	2	4	-	-	13	2
Inadequate skills	1	3	2	4	2	2	9	3
Poor filling system	1	3	-	-	-	-	3	6
Inadequate staff	1	3	2	4	-	-	7	4

Source: Field survey, 2001

Note: Symbols used are as defined in table 4.3

It can be inferred from the table that the three most important problems of most departments in information management are:

- Poor storage facilities such as filling cabinets
- Inadequate filling materials
- Inadequate skills in information management.

4.6.4 Use of planning information

The major source of information for both sectoral and district development planning are the district development plans. However, the survey revealed that none of the departments interviewed used the development plans as a basis for their planning. In fact no department had a copy or copies of previous and current development plans. This makes the harmonisation of sectoral plans difficult.

4.6.5 Information dissemination/communication

In essence, this involves communicating the available information to users. Information is transmitted to the users through communication. Methods of communication should therefore be tailored according to the needs and level of understanding of the information recipients. Poor communication systems are another major deterrent to proper functioning of most information systems.

With regard to communicating the information to the District Assembly, 7 out of 12 departments in the sample representing 58 percent reported that they were submitting quarterly reports to the District Assembly and the rest were not. However, physical inspection of the District Assembly's files from the registry showed that only three departments – Health, Non-Formal Education, and Ghana Education Service actually did so. Even then, their reports were also irregular ranging between one to two times in the year 2000 to none in 2001.

This just confirms that the majority of the decentralised departments were not submitting reports to the District Assembly as required.

Worse still, even for those few reports submitted to the District assembly, their formats or contents were determined solely by the parent ministries of these departments and did not capture the required information for district planning both in terms of quantity and quality.

For all the departments in the sample, it was reported that the only major problem hampering communication with the District Assembly was irregular feedback or action on reports by the District Assembly. The following expressions from the departments explain the point

“We write and send reports to the District Assembly but we get no feedback”. (District Health Administration)

“The District Assembly doesn't seem to be interested in the reports because those who do

not submit reports are not queried. So why waste my precious time". (Town & Country Planning)

It was also revealed, from the survey, that communication among the departments in information sharing was informal and irregular. There is absolutely no forum where all departments sit round one table to discuss or share information on development issues other than during District Assembly general meetings. Even at the general meetings of the assembly, the departments are mere spectators of deliberations unless they are called upon to give professional explanations to certain issues on the agendas of the meetings. It was further observed that there used to be meetings of Heads of Departments every quarter and chaired by the District assembly but this no longer exists.

4.7 Data collection, processing, information management and communication - District Planning and Co-ordinating Unit (DPCU)

The DPCU also collects data, processes it and produces information that is communicated and fed into the overall system.

4.7.1 Data collection sources and methods

The major source of data/information for the DPCU is reports from departments provided on a quarterly basis and on request. The other sources of data are assembly members, surveys and community members directly visiting the unit to report on their problems. However, surveys are only conducted when preparing district plans and they have proved to be very expensive and are therefore not a stable source of data for district planning.

Community members visiting the office, may not also be a reliable source of data as many settlements and poor communities far away from the township (Somanya) find it difficult to travel to Somanya to report their problems.

Assembly members report some problems of their communities to the District assembly but complete reliance on the assembly members has not helped in channelling information from the sub-district to the district level because most of the assembly

members do not regularly meet their electorates before going for assembly meetings. In fact all the Executive Committee of the District Assembly indicated that they could not cover all the communities under their areas because of problems of transport.

The departments are the main sources of data/information for the DPCU. However the reports from the departments have also proved to be unreliable for two reasons:

- a) the contents or data are not appropriate and adequate for district planning
- b) the reports are irregular with only a few actually submitting reports and the rest do not.

The inadequacy of data for district planning is more serious at implementation and management level (feedback stage). The reports from the departments are not based on the district plans. In fact no department interviewed had a copy of any district plan for reference. Consequently, information available is not suitable in terms of both quantity and quality for effective district planning in Yilo Krobo.

The establishment of Area Councils and Unit Committees by government was to facilitate community participation in planning and development process. Specifically, as one of their functions these institutions are required to generate some data that would filter up to the District Assembly to influence or be a basis for planning and policy formulation. However, the survey by SPRING students revealed that the area councils and unit committees, notwithstanding their operational problems, are not generating any significant data or information that can be incorporated into the district plans and programs. Consequently, there is very insufficient data/information emanating from the sub-district level apart from the one through assembly members and departments front line staff.

4.7.2 Data processing

The DPCU uses manual methods of data processing. The unit uses simple percentages, population projections by mathematical models like the growth rate.

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The major problem of the unit in data processing is the lack of appropriate facilities and equipment such as computers for easy processing of statistical data. Manual methods are tedious and take too much time. Secondly, data from different departments or sectors is not comparable because the departments collect and report their data based on different areal or reference units. For example, the District Health Administration uses health sub-districts; the Ghana Education Service uses zones around schools while the Department of Agriculture uses Agricultural Operational Areas whose boundaries are completely out of tune with the District Assembly's decision-making or administrative units at sub-district level - electoral areas and area councils. This poses difficulties in correlation analysis of data to determine their relationships and therefore planners cannot determine the effects of developments in one sector on the other.

4.7.3 Information management

The DPCU uses analogue system of information management. Hard files are created and some of them are stored in the District Assembly registry while the others are kept with the unit itself. For those kept in the DPCU, there is no systematic filing system, even though this did not pose a problem for retrieval. Retrieval of files is not a problem currently because there is not much information within the unit.

4.7.4 Information use and communication

The survey revealed that there was no deliberate mechanism for the DPCU to disseminate information resulting from the planning process to the departments or sub-district or area councils and unit committees. For the departments, it was reported that information was given on request. However, interviews with the departments showed that no department had obtained meaningful information from the DPCU. The implications for an integrated information system for district planning are serious. The departments may not be motivated to be part of a system from which they do not benefit anything. As indicated earlier, an appropriate information system should be able to serve the information needs

of all its constituents. As long as this continues, the relationship between the DPCU and the decentralised departments will remain "parasitic" and not "symbiotic".

At sub-district level, a survey by the SPRING students on institutional capacity building in Yilo Krobo district revealed that the area councils and unit committees received very little information from the DPCU. However, vital information such as government policies, programs, plans, and so forth was lacking. In fact no area council or unit committee had or had seen a copy of the district plan and yet they are expected to play a vital role in the implementation of the plans at that level.

In short, communication between the DPCU with departments horizontally and sub-district structures vertically is poor. In addition it can be inferred that the DPCU does not use planning information effectively.

4.8 Use of planning information

4.8.1 The District Assembly

The main purpose of an information system is to aid in the management of district development. In this case information systems in development planning should assist the District Assembly in making informed decisions for improved service delivery. The survey revealed that the District Assembly rarely makes use of planning information. The approved plans are just used for getting Common Fund from the central government and once the funds are given, the plans are shelved away and serve no purpose. In addition the little monitoring and evaluation information reported to the District Assembly is not used to direct implementation.

4.9 Participation

Participation of individual stakeholders in the district planning process is vital if support to the system is to be sought. When stakeholders fully participate in the planning process, it gives them a reflection of their relevance and importance to the entire system.

Therefore, it follows that the higher the level of participation, the more the commitment

from the actors in contributing the required information.

The results from the survey, with regard to the level of stakeholders' participation in the planning process, are presented in the following section:

4.9.1 District Planning Authority (District Executive Committee)

The District Executive Committee (D.E.C) comprises a total of 11 assembly members. However, at the time of the survey 8 of the eleven 11 members could be reached and were interviewed accordingly. The results were as shown in table 4.7:

Table 4.7: Participation of assembly members in the planning process

Planning stage	Level of participation (f=frequency)						Total Frequency (F)
	High		Moderate		Low		
	f	%	f	%	f	%	
Data collection	4	50	2	25	2	25	8
Analysis	1	12.5	-	-	7	87.5	8
Planning & Programming	1	12.5	-	-	7	87.5	8
Approval & adoption	8	100	-	-	-	-	8
Implementation and M&E	1	12.5	2	25	5	62.5	8

Source: Based on data from field survey, 2001

It is evident from the table that the participation of assembly members in the various stages of planning is average during the data collection stage and high during the adoption stage. For the other stages, their participation is low. However, even though the participation was reported high during adoption stage, it was indicated that their level of comprehension of plan contents was generally not high because the method of

presentation was, in most cases, too technical. This points to a communication lapse between the technical planners and the policy makers at district level.

4.9.2 Decentralised departments

As indicated earlier, the departments are one of the major sources of data/information for district development planning and therefore their level of participation in the planning process affects the extent to which they support the information system for planning. The results of the survey in this regard are summarised in table 3.8

Table 4.8 Participation of departments in the planning process

Level of participation	Frequency	%
High	3	25
Moderate	3	25
Low	6	50
Total	12	100

Source: Field survey, 2001

High: involved at all stages of planning

Moderate: Involved through being consulted, giving some required information and minimal participation in one aspect or stage of planning

Low: Involvement ranges from not participating and participating in only providing data during surveys

The results in the table reveal that the level of participation of most departments in the planning process is very low. In fact interactions with the departments during the survey revealed that most departments are only involved at the data collection stage of the planning process and participation diminishes as the process moves to advanced stages. Such a situation is not good for an information system that is integrated in nature and requires the inputs from various agencies. In this case, the departments do not consider themselves part of the planning system and consequently part of the planning information

system. This has reduced their commitment to the system as demonstrated by the inadequacy and inappropriateness of the information provided by these agencies. It was also revealed that no department even had a copy of any district development plan to relate their activities to.

4.10 Co-ordination

This is a key factor in the functioning of any integrated information system for planning. If there is poor co-ordination of the development actors, in this case at the district level, there can be no meaningful information system in the right sense of the concept. Information systems require constant flow and exchange of information, which is enhanced by good co-ordination. The District Co-ordinating Directorate (DCD) is the pivot of the co-ordination of development actors in the district.

4.10.1 District Co-ordinating Directorate (DCD)

The survey revealed that decentralised departments are co-ordinated through the submission of their annual action plans and quarterly reports. However, it was noted that the formats/contents of these reports are determined solely by the parent ministries of these departments without any input from the District Assembly. The result is that these reports are not very useful as a source of information for development planning in the district. Worse still, not all departments of the assembly even submit any reports.

It was also revealed that the Co-ordinating Director is supposed to call for meetings of the heads of departments of the district every quarter year. Lamentably, these meetings have become history, as they are no longer held, the last one having been in 1998.

With regard to vertical co-ordination, that is between the District assembly and the sub-district structures (Area Councils and Unit Committees), the survey revealed that these structures are poorly co-ordinated the major reason being that they are not functioning properly and thus are not reliable institutions, as yet, for their tasks.

All this boils down to the fact that both horizontal and vertical co-ordination of development actors by the District Assembly is poor and these institutions are not well integrated with the District Assembly.

4.10.2 District Planning & Co-ordinating Unit (DPCU)

The DPCU is required to co-ordinate the preparation and implementation of district and Sector Investment Plans. However, the survey revealed that the unit does not co-ordinate the annual plans of decentralised departments. This hampers co-ordination and flow of information on the nature and progress of development projects.

4.10.3 District Budget Office (DBO)

The DBO is required, according to Act 462 Section 92, to co-ordinate the preparation and implementation of integrated or "composite" district budgets, which synthesise and harmonise expenditure and revenue estimates of the programmes of all the departments of the District Assembly. However, results from the survey revealed that the office only co-ordinates the preparation and implementation of budgets of projects funded from the Common Fund. This means that other revenues and expenditures of funds other than the common fund are not co-ordinated by the budget office. Consequently, information about financial receipts and expenditures on all development projects implemented in the districts is not effectively captured by the information system. This makes it difficult to monitor and evaluate means (financial inputs) to ends (outputs).

The relationships among the problems identified in the current system are presented in form of a problem tree as shown on Appendix 4.3.

4.11 Impacts of the problems on data/information availability at the various stages of the planning process

- Analysis, Planning & Programming stage- The departments produce some amount

of information that they use for their own administrative and planning purposes. Some of this information is transmitted to the District Assembly through quarterly reports. Unfortunately, the information contained in these reports has limited usefulness for district planning as the contents are determined solely by the parent ministries of these departments. For the little information that is available, it is provided too late. A typical example is the Statistical Service that takes several years to conduct and publish census results. Before the recent national census in Ghana in 2000, the last one was conducted in 1984 and consequently important statistics such as population size and distribution for the district are outdated. Therefore planners have relied on projections that produce different statistics for different people and organisations. However basic data is relatively sufficient for those departments with extension staff, which are Departments of Agriculture, Education and Health. The inadequacy of basic data also makes the district plans unrealistic because they are based on inadequate data/information. In fact the adequacy of data for planning at this stage could not be ascertained by the departments because they are not very much involved in the planning itself.

- Plan approval and adoption stage- The draft plans are submitted to the District Assembly for approval. However, it was apparent that the methods of presentation by the administration was too technical and accorded little opportunity to question and understand the contents of the plans. Therefore chances of the planning authority passing inappropriate decisions on the plans are very high. Any plan biases with regard to spatial location and allocation of projects go unchecked which may lead to spatially unbalanced development within the district.
- Implementation management stage -After the proposed plans have been approved and adopted by the District Planning authority, they become legally binding documents for directing development efforts during the plan period. They are then presented to the Office of the District Administration for implementation by the District Assembly and its departments. The survey revealed a complete lack of meaningful data/information on the progress of implementation of projects in the

plan and therefore very little information on implementation filters back to the District Planning Authority. There is a big lapse in communication between the DPCU and the departments on one hand and the DPCU and the District Planning Authority on the other. Therefore ascertaining the progress and appropriateness of planned interventions becomes a nightmare for anyone attempting to do so.

4.12 Analysis of potentials and constraints

The analysis of potentials and constraints of the existing system is intended to be a basis for identifying feasible and effective proposals for the improvement of the existing system. This is done using the SWOT analytical tool. SWOT stands for Strengths, Weaknesses, Threats, and Opportunities.

Strengths are factors that are positive in the operation of a project or organisation and are within the control of management. They occur at present and should be capitalised on or harnessed.

Weaknesses are factors that are negative in the successful operation of a project and are within the control of management. They occur at present and should be eliminated as far as possible.

Opportunities are factors that are positive in the successful operation of a project but are outside the control of management. They should be taken advantage of.

Threats are factors that are negative against the successful operation of a project or organisation but are outside the control of management.

The SWOT analysis of the existing information system in Yilo Krobo is presented in table 4.9

Table 4.9 SWOT analysis of the existing information system

Strengths	Opportunities
• There is a strong linkage between the District Planning agency and the Policy making body (District Assembly) because the DPCU is the technical advising unit of the District Assembly on all matters of district development planning and management. This can ensure political support to the system	• There is a very elaborate decentralisation policy • There are established sub-district political/administrative structures • There is substantial central government funding through the Common Fund which can be used for supporting the system through training
Weaknesses	Threats
• Lack of communication facilities • Inadequate logistics • Inadequate office space for information storage • Understaffing of the departments making data collection and information management another burden for existing staff • Poor co-ordination of subsystems by the District Assembly • Lack of extension staff at sub-district level for most departments	• Resistance of some bureaucrats at both district and higher levels to relinquishing power to the District Assembly for effective co-ordination of departments

Source: Own construct

Based on the SWOT analysis, a logical hierarchy of objectives of the appropriate information system is given as a basis for identifying appropriate recommendations. These are the Goal, the Purpose, and Outputs.

Goal:

The effectiveness and efficiency of planning and implementation including M&E for addressing the problems of the district population is creased

Purpose:

Sufficient information of high quality is continuously made available and used effectively by all potential users (planners, sectoral agencies and the District Assembly

Outputs:

1. Data collection meets the needs of the users and is cost-effective
2. Data processing is of high quality and produces information that meets the needs of the agency and other users
3. Information management allows for up-dating, easy access and retrieval of information when required
4. Information is disseminated or communicated on time to all potentials users in a more user-friendly manner
5. Participation of all stakeholders in the overall information system is improved
6. Co-ordination (vertical and horizontal) of all actors in the planning process is improved

The recommendations are given as strategies for achieving the outputs.

CHAPTER FIVE

SUMMARY OF MAJOR FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

The survey revealed some critical weaknesses in the existing system with regard to information availability and relevance at the various stages of the planning process. This chapter gives an overview of the major findings, recommendations, and summary and conclusion

5.1 Findings

There is a general problem of insufficient data/information at all stages of the planning process. This is more serious at the implementation management stage where there is complete lack of data/information for providing feedback on progress in implementation.

The analysis revealed some critical problems that have contributed to this problem of insufficient data/information for district planning in Yilo Krobo.

5.1.1 Data collection

- Inadequate/ or lack of transport for mobility in data collection
- Poor inter-institutional collaboration in information sharing
- Inadequate staff
- Non-functioning sub-district structures
- Incomparability of data because of different spatial reference units of departments

5.1.2 Data processing

- Inadequate processing of data
- Lack of appropriate facilities/technology
- Inadequate skills

- Centralised processing

5.1.3 Information management

- Poor information storage systems
- Poor storage facilities
- Inadequate filing materials
- Inadequate skills in information management

5.1.4 Information use

- Planning information is not used effectively and therefore does not serve as a management tool

5.1.5 Information dissemination

- Irregular flows of information between the District Assembly and the departments
- Poor institutional collaboration
- Inappropriate methods of communication especially to the District Assembly members
- Lack of communication facilities

5.1.6 Participation

- Low level of participation of stakeholders (departments, assembly members and Town/Area councils and unit committees) in the planning process
- Low level of understanding of the concept of district planning and its relevance to district development

5.1.7 Co-ordination

- Poor vertical and horizontal co-ordination of information subsystems by the District Assembly.

5.2 Recommendations

Based on the major findings of this research, some specific recommendations are

presented.

5.2.1 Data collection

The following are recommended to improve data collection

- Institutionalisation of data collection

The DPCU should identify its data/information requirements for effective district planning and this should be communicated to the departments in order for them to collect within their routine data collection.

The same information may be needed by more than one agency. Likewise the agencies which provide such information may be more than one. The agencies are interrelated in terms of their similar concern over issues, problem areas, indicators and information needs. In these relationships, some overlaps are inevitable because of their common goal which is to improve the living standards of the people in the district. The sectoral agencies have their own sector specific roles and information needs but they also need the co-operation of other agencies such as the DPCU. On the one hand, their roles form a part of a more general objective or goal which, they share with other agencies. This makes it necessary for them to share information among themselves. An example for illustrating these relationships is presented on Appendix 5.1.

- Involving sub-district institutions in data collection

Considering the fact that the departments and the DPCU have problems of transport and inadequate staff for data collection, it is recommended that sub-district institutions (area/town councils) should be strengthened in basic planning. Specifically, they should be trained by the DPCU in data generation methods such as basic Participatory Rapid Appraisals (problem identification, ranking, mapping and plan formulation) and how to channel the information to the District Assembly. In fact even those departments without extension staff can use these institutions in disseminating and generating vital data to and from the sub-district level respectively. An example is the Births and Deaths Registry that is currently handicapped in both mobility and staff and therefore services only the urban

area and leaving the rural areas neglected. Yet the area councils and unit committees are also charged with the responsibility of Births and Deaths registration within their areas. Therefore the information gap between the district level and sub-district is significantly reduced. The other departments like the Departments of Social Welfare, Community Development, Youth Council, Statistical Service, and so on, can use the same strategy. This will make these departments more effective by reaching the sub-district level.

- **Harmonising geographical units for data collection**

District development planning requires integration and comparison of data from all sectors of the district economy in order to establish relationships. This is difficult to accomplish as long as the District Assembly and its departments continue using conflicting geographical units.

It is therefore recommended that a common spatial referencing system should be introduced for both sectoral and district planning. From a district planning point of view, these common reference units should be in line with those used by the District Assembly in district planning. The decision-making process at the district level is based on the District Assembly, which is made up of elected assembly members representing their communities. This is so far the most elaborate mechanism for local level participation in the governance of local affairs. However area councils seem to be the most appropriate sub-district delineations for two reasons:

- The electoral areas are too many but a number of electoral areas form an area council
- The district planning process at sub-district level is based on area councils as the largest sub-district divisions

Therefore it is recommended that all institutions base any sub-district area delineation on area council boundaries. However, in order to reach a consensus and solicit for support from other development agencies, the DPCU should call for a stakeholders meeting during which the issue of sub-district area delineation and its advantages is to

be discussed and agreed.

5.2.2 Data processing

Processing of data should be decentralised to the district level for all the departments in order to improve the quality of available data for development planning. A typical example is the Statistical Service that collects data from districts and processes the data at regional and national level. No data is left at the district level and in fact when the results are published, they are aggregated at regional and national levels. Data processing at the district level will require that basic data collected by the departments is subjected to more advanced analysis than reporting mere numbers without any interpretation attached. Trends must be interpreted and implications for district development planning should be identified and communicated to the District Assembly for necessary interventions. However, this will have to be accompanied with some training of staff of departments in statistical analysis and interpretation. Provision of simple equipment such as calculators is also necessary.

5.2.3 Information management

Management of information needs to be improved to make accessibility of the information more timely and easy to access. The departments should adopt systematic filing systems that keep information files in a comprehensive manner. It is recommended that information managers should be trained in information management in order to improve their skills.

5.2.4 Use of planning information

All actors that is the departments, the DPCU and the District Assembly should use the district development plans for their decision making. In this case, the monitoring role of the Ministry of Local Government and Rural Development and the Regional Coordinating Council becomes crucial because they should ensure that planning is not

just drafting plan documents but improving the living standards of the people. The districts should be assessed by comparing their annual progress reports to the contents or programmes in their approved plans and any deviation should be questioned. In this way districts will be forced to make use of the development plans to the betterment of their people and not people serving the administration.

5.2.5 Data/information dissemination/communication

The District Assembly plays a strategic role in the district planning process by having to approve or vet district plans before they become binding documents for district development. However, their capacity to comprehend the district planning process and the salient features of development plans needs to be strengthened. It is therefore recommended that a workshop should be organised for district assembly members on the district planning concept and their role as a District Planning Authority.

Planners also need to improve their methods of plan presentation to the District Assembly by making them simpler and transparent. In this case planners can use maps, charts and graphs to illustrate and justify the proposals made in addressing the problems. Spatial locations of existing and proposed projects should be clearly shown on district maps for members to see the distribution.

Whenever planners are communicating information to the District Assembly members, they should ensure that the information is presented in appropriate forms.

- Written reports are needed when describing information and/or complex processes or interrelationships
- Tables are necessary when the purpose is merely to provide a summary of all the quantitative information
- Charts are effective in revealing trends (increasing or decreasing) and proportions
- Maps are appropriate when communicating spatial distribution of particular phenomenon such as distribution of schools, health centres, water points and so on.

These tools can be used in combination but it is always important to use each tool appropriately. Since one of the major purposes of information systems is to aid decision-making (at operational, management, and policy levels), maps and charts are more appropriate. A map showing the current distribution of health facilities and levels of accessibility to the facilities would in no time help the planner to justify his proposals for locating a new health facility in the district. The assembly members will find it easy to comprehend the reason behind the proposals and therefore cooperate with the planner by giving all their support. An example of such a map is presented on Appendix 5.2.

The main subject of the information that should be communicated to the District Assembly by the departments is on progress of implementation of programs within the jurisdiction of each department.

An appropriate information system should be able to provide timely and adequate information on progress and impact of plan implementation by the departments and other agencies. In other words it should provide monitoring and evaluation information to both the departments themselves and the District Assembly. However, this will not be possible as long as departmental action plans of departments are not logically linked to the development plans. It is therefore recommended that all departments should be introduced to and adopt logical frameworks. Logical Frameworks work on the principle of Management By Objectives (MBO) in which case development activities and budgets are based on development objectives of the district or organisation. In fact this is even a requirement in the New Planning System as stipulated in the Planning Guidelines for the preparation of sectoral and District Development Plans (Ghana, Republic of: 1995:29-57).

These Logical Frameworks form the basis for identifying data/information needs for monitoring and evaluation of plan implementation. Refer to Appendix 5.3 for model logical framework incorporating the area councils as common spatial reference units.

5.2.6 Participation and co-ordination of departments

It is recommended that a District Development Co-ordinating Committee (DDCC) should be established in the district and will purely be an administrative body whose main function is to bring together all heads of department and Non-Governmental Organisations (NGOs) operating in the district to discuss issues pertaining to district development. It will be chaired by the District Co-ordinating Director (DCD) and serviced (secretariat) by the DPCU and will meet on a quarterly basis. Sub-committees should also be established to implement resolutions of the DDCC and all member organisations and departments should be allocated sub-committees related to their field of operations.

Once the DDCC and its sub-committees have been established, the actual planning, implementation and Monitoring and Evaluation should be done by the DDCC through the various sub-committees while the DPCU plays a facilitating and consolidation role. In this way the departments and organisations become the actual planners and not merely information providers. Once the departments get involved in the planning process, it should become apparent on their part the data/information required for district planning in relation to their specific sectors and consequently efforts will be made to collect the relevant data.

In this case the inadequacy and inappropriateness of data/information for district planning becomes a problem of both the DPCU and the departments and other organisations. This then becomes a 'turning point' in fostering institutional collaboration for an effective information system for district development planning in Yilo Krobo district.

Through the DDCC and its sub-committees, the District Assembly and the departments should agree on standard formats and frequency for reporting to the District assembly. On the basis of these formats the departments will prepare and present reports to the DDCC every quarter. This provides an opportunity for the development agencies to share information on development by questioning and understanding the activities of each other. Co-ordination will therefore be improved not only between the District Assembly and the departments and organisations on one hand, but also among the departments and

organisations.

Since the DPCU plays a pivotal role in the planning process and therefore in the management of the information system for district planning, it is recommended that the unit should be provided with necessary logistics for strengthening its role as a development information centre for district development. The unit needs logistics such as vehicle, computer and information storage facilities like filing materials and filing cabinets. This will improve the capacity of the unit for data collection, processing and management.

5.3 Implications

The recommendations given have some implications that need to be taken into account in operationalising them.

5.3.1 Harmonising geographical units for sectoral and district planning

The adjustment to a common spatial referencing system, based on area councils will require consensus at regional and national levels. Therefore the idea should be marketed to the parent ministries of the departments through the NDPC but consensus at the district level should be a starting point. In Zambia, the same strategy was attempted and strategic institutions like the Ministry of Agriculture, and the Central Bureau of Statistics became interested in the idea and it is hoped that adjustment to the District Council ward boundaries will be made. In fact the Central Bureau of Statistics agreed to base their data collection on ward boundaries.

5.3.2 Financing of proposals

The proposals made have also got some implications on the expenditure budget of the district assembly in order to provide additional manpower, office space, equipment and training. In fact it was revealed during the survey conducted by the SPRING students on institutional capacity building that the District Assembly is constrained by limited financial resources for both capital and administrative expenditure. Therefore it is recommended that the District Assembly should put these problems as one of the priority

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areas for strengthening its capacity for effective development planning and management. In this case the District Assembly should use part of the Common Fund to finance these proposals since there is a component on institutional capacity building within the Common Fund. Additionally, the District Assembly should seek donor technical assistance from agencies such as UNDP, GTZ, NORAD etc. for supporting institutional capacity for district development planning.

5.4 Conclusion

An information system basically joins two nodes, data generators and information users. Information is a vital resource in district development planning, as it is fundamental to effective decision-making. An information system is therefore needed for providing the required information in a more timely and cost-effective way.

A review of the information system in Yilo Krobo district has revealed several weaknesses as has been pointed out in the summary of findings. The District Assembly therefore needs to take corrective measures as recommended if planning is to play a meaningful role in district development. However, the task is may not be as simple as one would expect because information systems for development planning at local levels involve organisational issues that are complex. Sectoral information systems that are supposedly expected to operate as subsystems to the district planning information system have been in existence for many years and have developed inertia (with regard to change) and momentum (with regard to their survival) of their own. Therefore planners do not have the luxury of introducing a completely new information system. There is therefore a need for consensus building through extensive consultation and collaboration between the District Assembly and the departments including the Town/Area Councils and Unit Committees to solicit support from all the stakeholders.

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Kumasi

APPENDIX 3.1A

QUESTIONNAIRE (DISTRICT COORDINATING DIRECTORATE)

Name of interviewee:

Title of interviewee:

1. How long have you served in that position?
.....

2. What are your roles/responsibilities in the district planning process?
.....
.....
.....

3. What are your information needs?

Information needs	Information available	Information gaps

4. What is your level of understanding with regard to the role of district planning in the district?

- a) High
- b) Moderate
- c) Low

5. What is your level of involvement in the district planning process with regard to:
1. High 2. Moderate 3. low

- | | | | |
|---|-----|-----|-----|
| a) Collecting data/information for analysis | [] | [] | [] |
| b) Analysis and problem identification | [] | [] | [] |
| c) Planning & Programming | [] | [] | [] |
| d) Approval and adoption of plans | [] | [] | [] |
| e) Implementation of plans | [] | [] | [] |
| f) Monitoring & Evaluation of plan implementation | [] | [] | [] |

6. To what extent have the decentralized departments been integrated with the district assembly?

- 70
- APPENDIX A.1 B
1. How do you coordinate the decentralized departments and NGOs in district development?
- a) Well integrated
b) Partially integrated
c) Not integrated

7. How do you coordinate the decentralized departments and NGOs in district development?

.....

8. What is the nature of information flows between the District Assembly and decentralized departments/NGOs?

.....

9. What is the level of involvement of the line agencies in district planning?

- a) High
b) Moderate
c) Low

10. If low in (8), please give reasons

.....

11. Do you get feedback on plan implementation? Yes [] No. []

12. If yes how, and how often?

.....

13. How do you use information from monitoring reports?

.....

14. What role if any have area councils/ unit committees played in the district planning process?

.....

15. What is the quality of information from D.A members in representing the views of their communities for effective planning?

.....

16. State, in priority order, not more than three (3) most important problems hampering effective coordination and integration of decentralized departments/NGOs in district development?

.....

.....

.....

APPENDIX 3.1 B

QUESTIONNAIRE - (DPCU/DFO/DBO As applicable)

Name of interviewee:

Title of interviewee:

Participation in district planning

1. What are the functions/responsibilities of the unit?

.....

.....

2. What functions are you performing currently?

Required	Actual performed	Variance	
		Variance	Reason

3. Do you have copies of the Yilo Krobo 5 year Medium Term Plans?

a) 1996-2000 Yes [] No []

b) 2001-2005 Yes [] No []

Data/information needs

4. What are your data/information gaps?

Needed	Available	Gap

5. What are your information needs that you feel should be met by the decentralized departments?

.....

Data collection

6. What is the major source of your data/information?

a) Decentralized departments []

- b) Assembly Members []
- c) Others [] Specify

7. How is the data provided from (6)?

- a) Written reports []
- b) Verbal reports []
- c) Other [] Specify

8. How often is the data provided?

- a) Monthly []
- b) Quarterly []
- c) Annually []

9. How adequate (quality and quantity) is the information provided for purposes of district planning?

- a) Adequate []
- b) Not adequate []

10. What reference/area units do you use for data collection?

- a) Electoral areas []
- b) Area Councils []
- c) Unit Committees []
- d) Others [] Specify

11. Specify, in priority order, not more than three (3) most important problems you face in data collection.

.....

Data processing

12. How do you process your data?

- a) Computer []
- b) Manual []

13. What methods of analysis do you apply in processing your data?

.....

14. State, in order of priority, not more than three (3) most important problems you face in processing data?

Information management

15. How do you store your information?

- a) Hard files and orderly []
- b) Hard files and disorderly []
- c) Computer []

16. How is the information up-dated?

- a) Reports from implementing agencies []
- b) Surveys []
- c) No systematic up-dating is done []

17. Who is directly responsible for storage and retrieval of information?

- a) Head of department []
- b) Registry/information officer []
- c) No one is responsible []

18. What are the qualifications/skills and experience of the officer in information management?

19. What specific training has the officer undergone in the area of information management?

20. State, in order of priority, not more than three (3) most important problems you face in information management.

Communication with District Assembly (Dissemination of planning information)

21. How do you present district plans for approval by the district assembly?

- a) by DCE/DCD
- b) District Planner presents

22. When assembly decides to modify the plans, to what extent do you incorporate their ideas?

- a) Incorporated
- b) Not incorporated

23. How is the District assembly kept informed on progress in plan implementation?

Communication with decentralized departments

24. How do you communicate with the decentralized departments?

- a) through DCE/DCD
 - b) Direct with the departments
 - c) Others [] Specify
-

Communication with the sub-district structures

25. How does the DPCU link up with the Area Councils/ Unit Committees in the district planning process?

26. What role ,if any, have the Area Councils and Unit Committees played in data/information provision for district planning?

27. What kind of data/information is provided by the Area Councils/Unit Committees?

28. How relevant and adequate has been the data/information provided?

29. In the data/information has not been relevant or adequate, how has the DPCU collected the data/information from the sub-district or community level?

30. State, in order of priority, not more than three most important problems associated with data/information from the sub-district or community level for district planning purposes?

31. What is your perception of the relevance of Area Councils/ Unit Committees in district planning vis-avis data collection from the sub-district level?

APPENDIX 3.1 C

QUESTIONNAIRE

(IMPLEMENTING AGENCIES - Decentralized departments)

Name of Department:

Name of interviewee:

Title of interviewee:

Participation in district planning

1. What are the functions/responsibilities of the department?
.....
.....
2. What is your level of understanding with regard to the role of DPCU/District planning in district development?
 - a) I understand and appreciate []
 - b) I understand but don't appreciate []
 - c) I do not understand []
3. What is your level of involvement in the district planning process with regard to:
1. High 2. Moderate 3. low
 - g) Collecting data/information for analysis [] [] []
 - h) Analysis and problem identification [] [] []
 - i) Planning & Programming [] [] []
 - j) Approval and adoption of plans [] [] []
 - k) Implementation of plans [] [] []
 - l) Monitoring & Evaluation of plan implementation [] [] []
4. Do you have a copy of the Yilo Krobo District plan
5.
 - a) Yilo Krobo District 5 year Medium Term Plan (1996-2000) Yes [] No []
 - b) Yilo Krobo District 5 year Medium Term Plan (2001-2005) Yes [] No []

Data/information needs

5. What are your data/information gaps?

Needed	Available	Gap

6. What are your information needs that you feel should be met by the DPCU?

.....

7. To what extent has the DPCU fulfilled these needs?

.....

Data collection

8. How do you collect your data?

- a) Surveys []
- b) Reports from extension staff []
- c) Others [], please specify

.....

9. How often is the data collected?

- a) Monthly []
- b) Quarterly []
- c) Annually []

10. How adequate is the information currently available for your functions?

- a) Adequate []
- b) Not adequate []

11. How adequate is the available information for district planning (with regard to data/information requirements in district planning for your sector)?

- a) Adequate []
- b) Not adequate []

12. What reference/area units do you use for data collection?

.....

13. Specify, in order of priority, not more than three (3) most important problems you

face in data collection?

.....

Data processing

14. How do you process your data?

- a) Computer []
- b) Manual []

15. What methods of analysis do you use during processing?

- a) Statistical methods (e.g correlation, trends, percentages etc.) []
- b) No analysis is done []

16. State, in priority order, not more than three (3) most important problems you face in processing your data?

Information management

17. How is information stored?

- a) Hard files and orderly []
- b) Hard files and not orderly []
- c) Computer []

18. How is the stored information up-dated?

- a) Monthly
- b) Quarterly
- c) Annually
- d) Not up-dated at all

19. Who is responsible for the storage and retrieval of the information?

- a) Head of department []
- b) Registry clerk []
- c) Information officer []

20. What are the qualifications/ skills and experience in information management?

.....

21. What specific training has the officer undergone in the area of information management?

.....

22. State, in priority order, three most important problems you face in information management.

.....
.....
.....

Communication with District Assembly (Information dissemination)

23. How do you communicate information to the District Assembly?

- a) Quarterly reports []
- b) During District Assembly meetings []
- c) When requested []
- d) Do not provide any reports []

24. How is the format/content determined?

- a) MTEF []
- b) Logical frameworks (according to development plan) []
- c) Other [] Specify

25. If you give reports to District Assembly, who determines their format/content?

- a) Parent ministry []
- b) District assembly []
- c) Own format []

26. State, in priority order, not more than three (3) most important problems affecting communication with the District Assembly.

.....
.....
.....

Communication with other institutions/Departments (Dissemination)

27. What mechanisms are there for sharing information with other departments?

- a) Heads of departments meetings by District Assembly []
- b) No mechanism []
- c) Others [] Specify

28. State, in priority order, not more than three (3) most important problems associated with inter-institutional information exchange.

.....

APPENDIX 3.1 D

QUESTIONNAIRE

(DISTRICT PLANNING AUTHORITY) District Executive Committee members)

Name of interviewee:

Title of interviewee:

Sex: Male [] Female []

1. What are your roles/responsibilities as an assembly member?
.....
.....
2. How long have you served as an assembly member?
 - a) <4 years
 - b) 4-8 years
 - c) More than 8 years
3. Which sub-committee of the District Assembly do you serve on?
 - a) Social services
 - b) Development planning
 - c) Works
 - d) Justice & Security
 - e) Finance & Administration
 - f) Environment
 - g) Others
4. What is your level of understanding with regard to the role of district planning in district development?
 - a) High
 - b) Moderate
 - c) Low
5. What is your level of involvement in the district planning process with regard to:
1. High 2. Moderate 3. low
 - a) Collecting data/information for analysis [] [] []
 - b) Analysis and problem identification [] [] []

- | | | | | |
|----|--|-----|-----|-----|
| c) | Planning & Programming | [] | [] | [] |
| d) | Approval and adoption of plans | [] | [] | [] |
| e) | Implementation of plans | [] | [] | [] |
| f) | Monitoring & Evaluation of plan implementation | [] | [] | [] |

6. In your view, do you think the decisions you make in district planning are honored by the district administration?

- a) District plans Yes [] No []
 b) M&E reports Yes [] No []

7. If No. to (6), what actions do you take?

.....

.....

8. When plans are presented to the District Assembly for approval, what is your level of understanding with regard to

- a) Details/contents of the plans High [] Moderate [] Low []
 b) Method of presentation Understandable [] Too technical []

9. Do you get feedback on progress in plan implementation?

- a) Yes []
 b) No []

10. If Yes, how often?

- a) Monthly
 b) Quarterly
 c) Annually
 d) Ad hoc

11. If No., how has this affected your operations as a district assembly?

.....

12. How often do you meet your electorates?

- a) Monthly
 b) Quarterly
 c) Annually
 d) Ad hoc
 e) Don't meet them at all

APPENDIX 3.2 (LIST OF RESPONDENTS)

3.2 A CENTRAL ADMINISTRATION

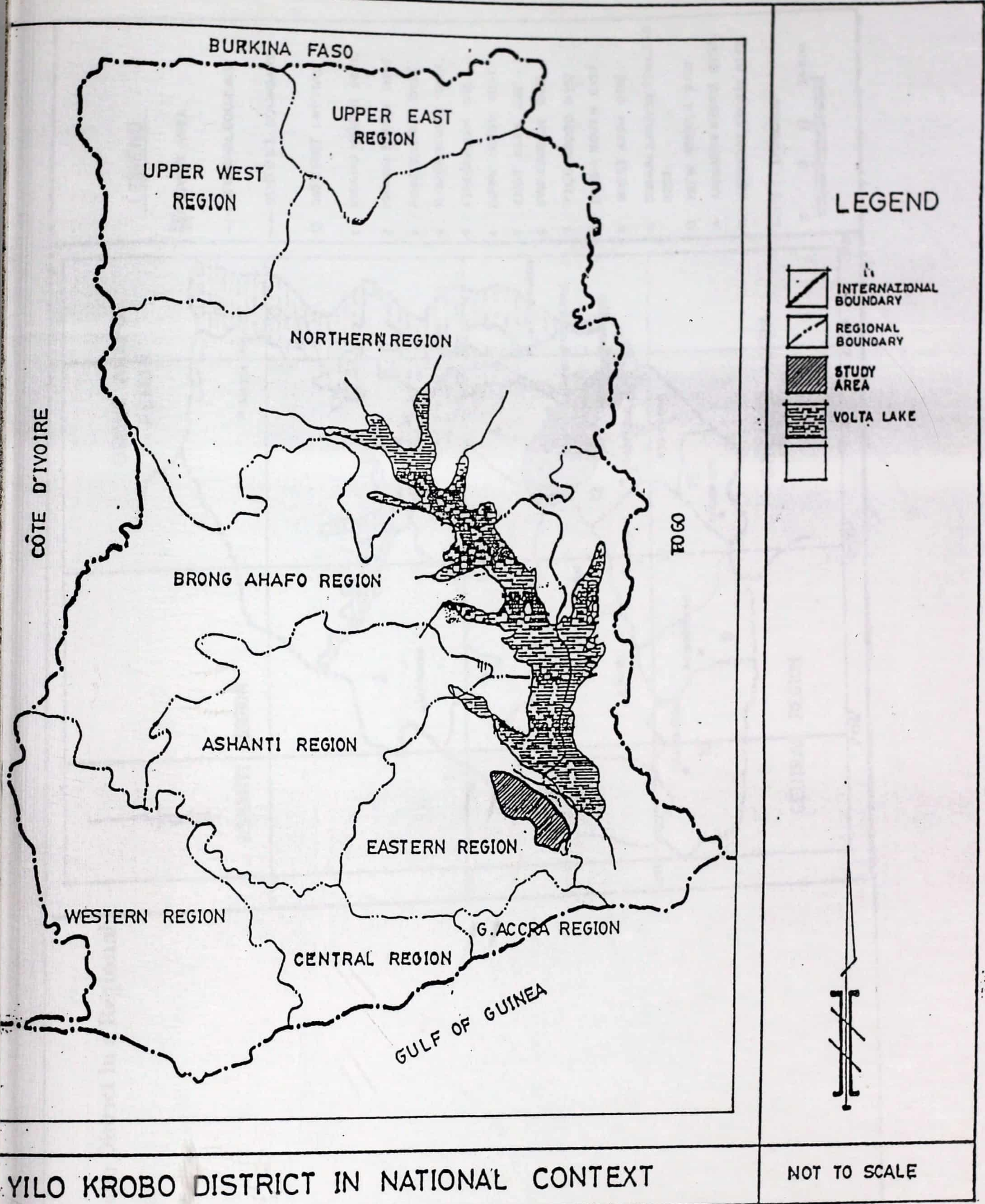
SECTION	RESPONDENT
1. District Coordinating Directorate	District Coordinating Director
2. District Planning & Coordinating Unit	District Planning Officer
3. District Budget Office	District Budget Officer
4. District Finance Office	District Finance Officer

3.2 B DEPARTMENTS

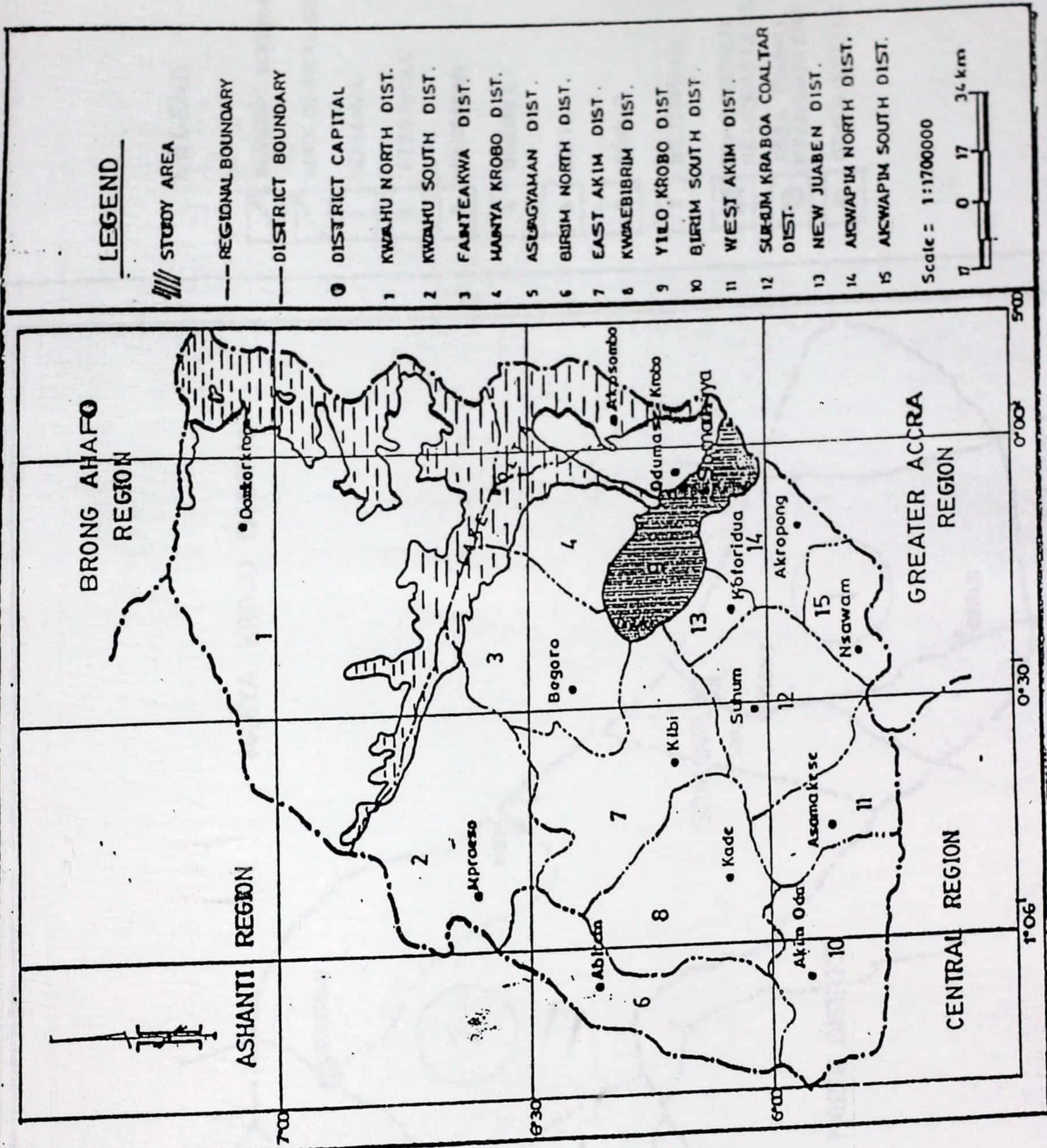
DEPARTMENT	RESPONDENT
1. Births & Deaths Registry	Assistant Registration Officer
2. Information service	District Information Officer
3. Statistical Service	Senior Technical Officer
4. Education Service	District Director
5. Non-Formal Education Division	District Director
6. Youth	District Youth Coordinator
7. District Health Administration	District Director
8. Agriculture	Management Information Systems Officer
9. Town Planning	District Town Planning Officer
10. Social Welfare	District Social Welfare Officer
11. Community Development	District Community Development Officer
12. Forestry	District Forestry Manager

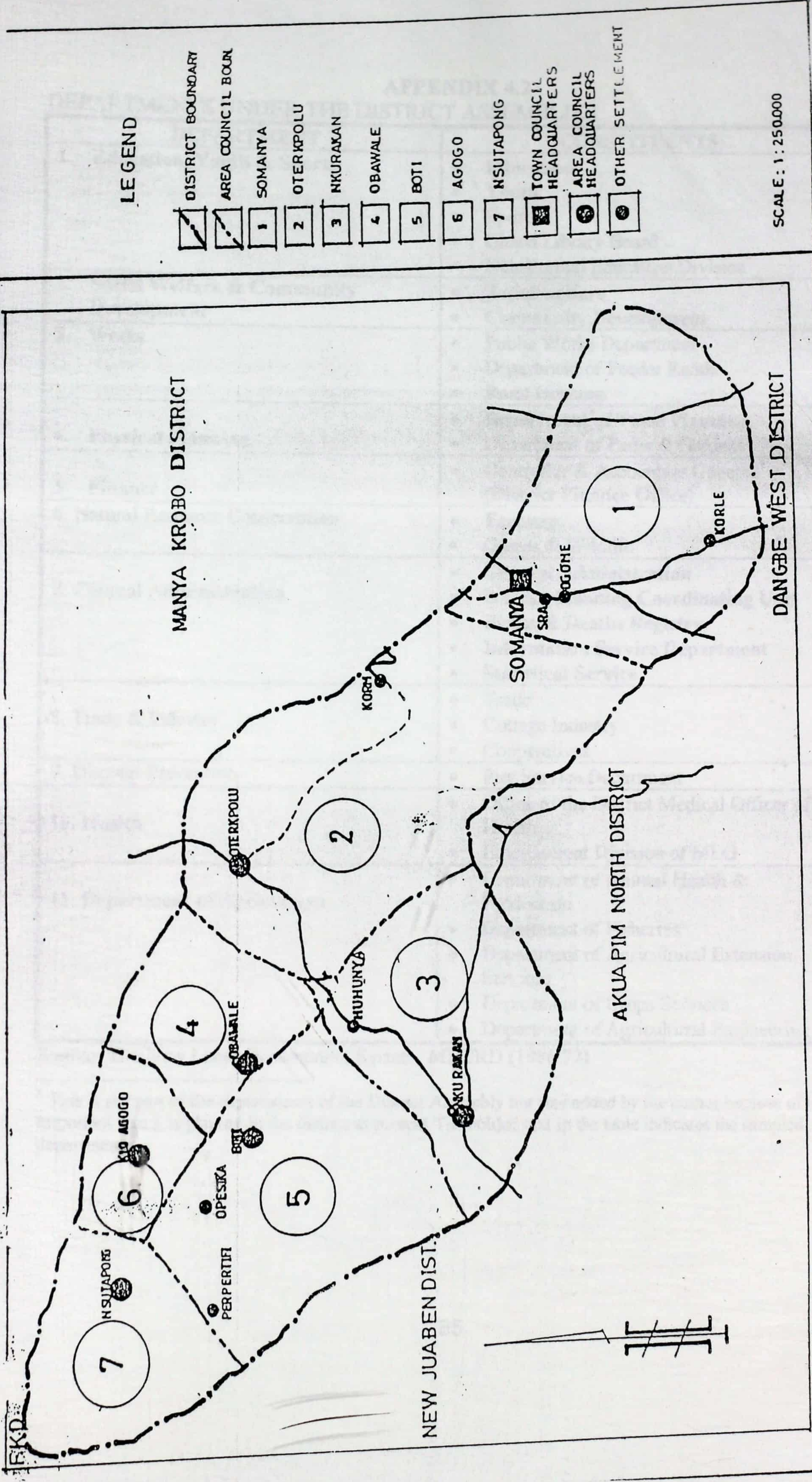
3.2 C DISTRICT EXECUTIVE COMMITTEE MEMBERS

NAME/TITLE	ELECTORAL AREA
1. R.Y. Nyade	Okperpiem
2. Alex Narh Adjirackor	Sra
3. Ishamael Korletey (Works committee chairman)	Oterkpolu
4. Peter Awaitey	Pleyo/Sikabeng
5. R.K. Appiah (Justice & Social security-chairman)	Gbekormanya
6. Lawrence awatey (Social services chairman)	Adjikpo
7. James T. Tetteh	Nkurakan
8. G.P. Tetteh	Huhunya



Appendix 4. IB:Yilo Krobo District in a Regional Context





MAP SHOWING TOWN/AREA COUNCIL

APPENDIX 4.2

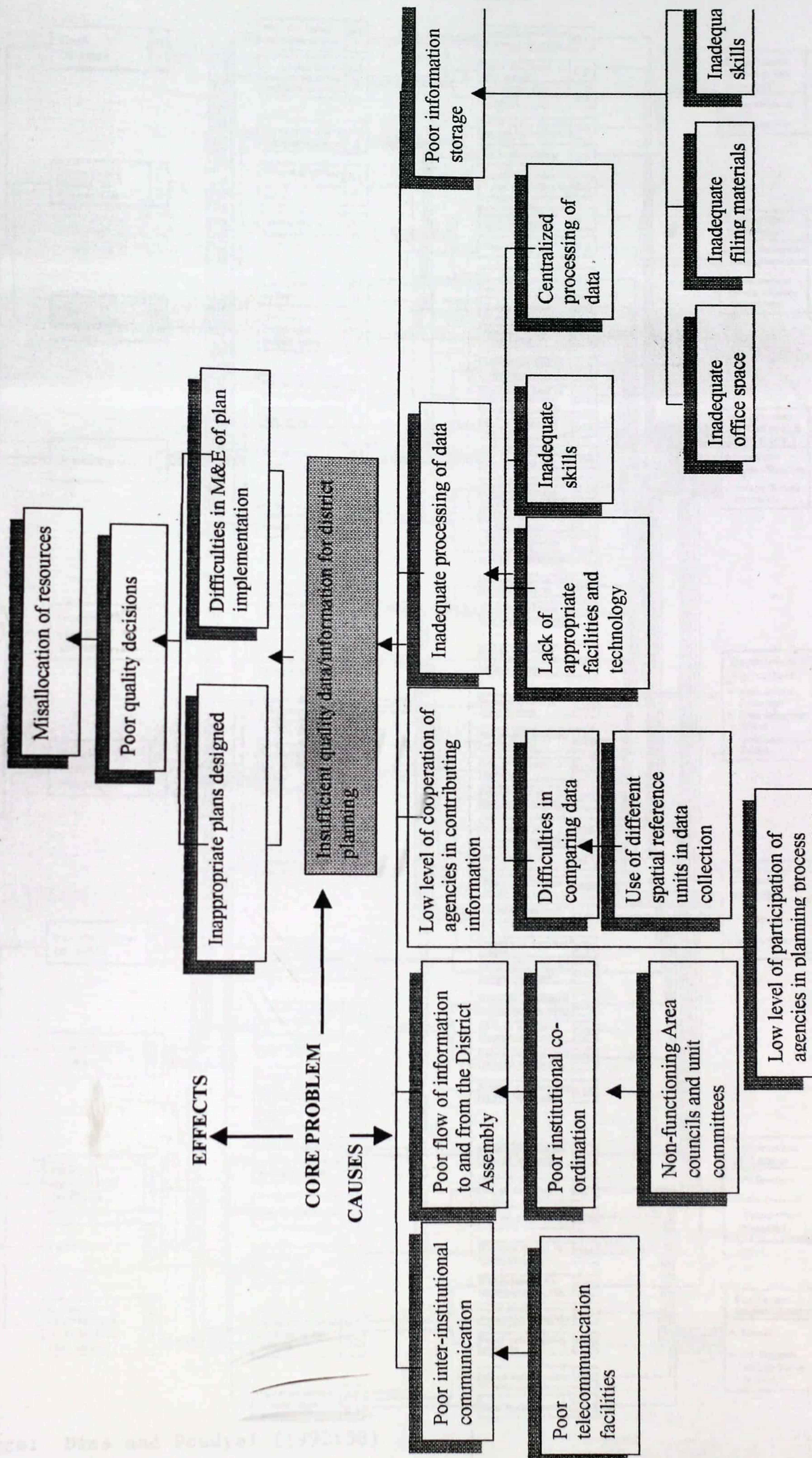
DEPARTMENTS UNDER THE DISTRICT ASSEMBLIES

DEPARTMENT	CONSTITUENTS
1. Education, Youth & Sports	• Education • Youth • Sports • Ghana Library Board • Non-Formal Education Division*
2. Social Welfare & Community Development	• Social welfare • Community Development
3. Works	• Public Works Department • Department of Feeder Roads • Rural Housing
4. Physical Planning	• Department of Town Planning • Department of Parks & Gardens
5. Finance	• Controller & Accountant General (District Finance Office)
6. Natural Resource Conservation	• Forestry • Games & Wildlife
7. Central Administration	• General Administration • District Planning Coordinating Unit • Births & Deaths Registry • Information Service Department • Statistical Service
8. Trade & Industry	• Trade • Cottage Industry • Cooperatives
9. Disaster Prevention	• Fire Service Department
10. Health	• Office of the District Medical Officer of Health • Environment Division of MLG
11. Department of Agriculture	• Department of Animal Health & Production • Department of Fisheries • Department of Agricultural Extension Services • Department of Crops Services • Department of Agricultural Engineering

Source: The New Local Government System, MLGRD (1986:77)

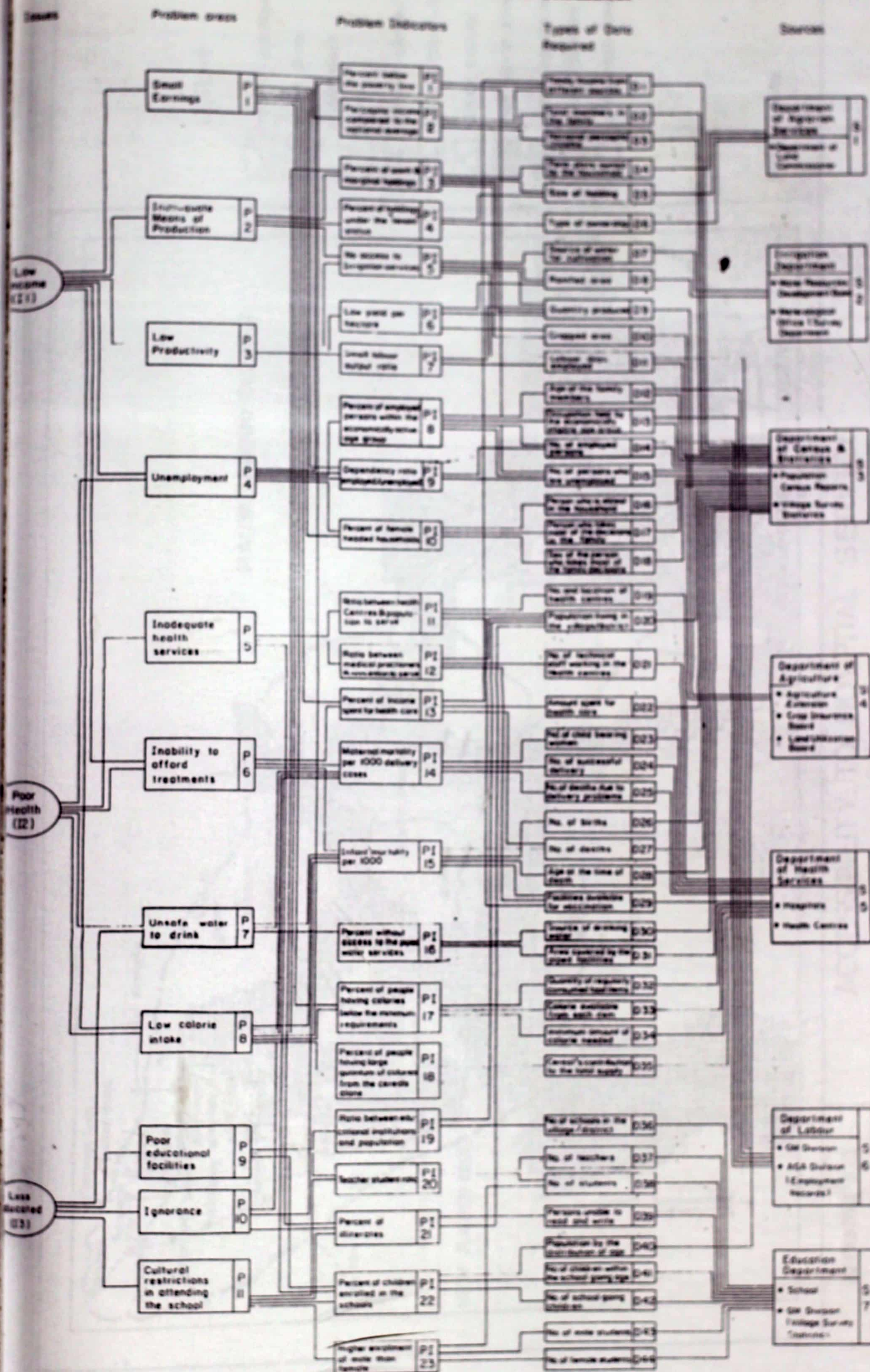
* This is not part of the departments of the District Assembly but was added by the author because of the important role it is playing in the district at present. The bolded text in the table indicates the sampled departments.

PROBLEM TREE



APPENDIX 5.1: AN ILLUSTRATION OF INSTITUTIONAL RELATIONSHIPS IN DATA COLLECTION (AN EXAMPLE FROM SRI LANKA)

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MODEL LOGICAL FRAMEWORK FOR SECTORAL PLANNING (AN EXAMPLE FOR THE WATSAN TEAM)

Narrative statement	Objectively Verifiable Indicators				Means of Verification	Important Assumptions
	Statement	Reference unit	2001	2002		
Goal: Population enjoys better health and reduced incidence of diarrhoeal diseases (the Goal is derived from purpose level of District Plan)	% reduction in reported cases of diarrhoeal diseases	District Somanya Oterkpolu Nkurakan	15 20 20 15	25 30 30 25	The WATSAN Team plans in such a way that indicators refer to area councils. If all the other departments adopt the same approach, this can be a big step towards the harmonisation of data collection and therefore make it possible to compare data from different sectors. All data will be reduced to a common denominator	
	Purpose: People have access to adequate and clean water supply, continuously use and maintain the water facilities	District Somanya Oterkpolu Nkurakan	20 30 20 40	40 45 30 50		
Outputs: 1. Bore holes are drilled and hand pumps are installed	User/water point ratio reduces as follows				This forms the budget of the agency and the sum of all budgets of the departments becomes a basis for determining the District Development Budget. In this way development budgets are logically linked to the overall goal of the district plan and the objectives of the respective sector.	
	No. of boreholes drilled and installed with handpumps	District Somanya Oterkpolu Nkurakan	100 20 15 15	70 10 10 10		
Activities:	Specification of inputs and budget					

Note: The figures used in this table are not real and are just used for illustration purposes